



SCHOOL OF
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The Role of Consumer's Self-Identity on Pro- Environmental Behavioral- and Loyalty Intentions

An Empirical Study in the Shopping Mall Context

by

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‘Don’t be distracted by the myth that “every little bit helps”.

If everyone does a little, we’ll achieve only a little.’

- David McKay, (2009), p. 114

Abstract

Title: The Role of Consumer's Self-Identity on Pro-Environmental Behavioral- and Loyalty Intentions – An Empirical Study in the Shopping Mall Context

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Thesis Purpose: We aim to enhance the understanding of why Swedish consumers perform pro-environmental behaviors and how this can be influenced by managers and marketers in the shopping mall environment, making the mall more attractive and shoppers more loyal.

Theoretical Perspective: We take on a sociological perspective by researching constructs based on identity theory, conspicuous consumption, and the theory of self-congruity.

Methodology/Empirical Data Collection: A deductive approach and thus a quantitative research strategy was chosen to fulfill the aim of this cross-sectional study. We made use of non-probability sampling and recruited respondents through a web survey (n=336). We performed non-parametric signed rank and ranked order correlation tests, as well as (moderated) mediated regression analyses to investigate the relationships between pro-environmental self-identity, social visibility, and social consumption motivation. We adopted a one-group pre-post design to investigate the attractiveness and loyalty of a mall in the current, and a future imagined setting through a story treatment.

Findings/Conclusion: Pro-environmental self-identity positively predicts the intention to perform pro-environmental behaviors. Although social consumption motivation shows to be insignificant in the investigated context, the measure of social visibility indicates that social status motives matter in sustainable consumption. We contribute to a deeper understanding of Swedish shoppers' motivation to perform pro-environmental behaviors. The reconstruction of their (pro-environmental) self-identity, as well as the public display, seem to be important factors. The adoption of pro-environmental behaviors leads to an increase in mall attractiveness which in turn increases mall loyalty. The identification with a mall and its shoppers predicts a great extent of shoppers' loyalty intentions. As the identification with a mall and its shoppers has not been studied before but showed strong predicting effects on loyalty intentions, we deliver a major contribution to the limited literature on intangible cues.

Practical Implications: Our study gives shopping mall management and marketers insights into how to increase mall attractiveness and loyalty intentions by truly understanding its customers. We recommend to use the pro-environmental self-identity construct to segment customers and consequently depict to what extent pro-environmental behaviors would be adopted. As these behaviors inhabit social status value, an increase in visibility through prompts and the use of social norms seem adequate to stimulate the adoption of such behaviors. To not threaten the identity of certain segments, and therefore, the possibility of losing them as shoppers, changes in the mall environment should be carefully considered.

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Lund, 29 May 2020



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1 Introduction

The section introduces the current situation regarding pro-environmental behaviors in Sweden. We analyze the traditional approach and argue for alternative approaches for driving behavioral change. The problematization touches upon concepts such as a consumers' identity and the context relevance behind consumption. A major part of consumption in Sweden takes place in the physical retail environment. Lastly, we present the purpose of the study, its contributions, and the research questions.

1.1 Background

“After living for two months in Sweden, I started changing my eating and buying habits. Many of my class- and roommates are vegetarian or even vegan. As a meat-eater, I started cooking vegetarian dishes and exchanged my normal milk for Oatly. I started bringing my coffee mug to meetings and I am proudly showing my “newly” bought clothes at the second-hand store to my friends.” - exchange student, Lund University (female, 24)

Sweden is considered a frontrunner in redesigning society to become environmentally sustainable (Lidskog & Elander, 2012). The government calls for a change of lifestyles (Isenhour, 2010) in a neoliberalist manner, in which Swedish consumers are expected to take individual responsibility for their consumption choices (Retail Guide Sweden, 2019). Isenhour (2010) concludes that a majority of Swedes clearly believes that being sustainable is not just related to what they buy, but also how much they buy. A growing interest in brands that offer recycling, repairing, and second-hand options showcases this (Retail Guide Sweden, 2019). Even though there is a growing interest in these so-called curtailment behaviors – buying less -, sustainable consumption research mainly focused on purchasing behavior of e.g. eco-friendly products, but much less on the use and disposal of products (Stål & Jansson, 2017). That there is less attention for curtailment behaviors is also visible in actual behavior. Reduced consumption has not yet happened in Sweden. In fact, disposable income and retail spending per capita are higher in Sweden compared to other European countries (SCB, 2010, cited in Isenhour, 2010). An interesting observation is that household consumption in categories such as clothing, home interior, and leisure (CSK, 2008, cited in Isenhour, 2010) increased significantly. Especially these categories have serious indirect environmental costs (Carlsson-Kanyama, Pipping Ekström & Shanahan, 2002).

Swedes do not only try to take personal responsibility, but demand companies and institutions to minimize environmental impact. They prefer to buy products and brands that reflect their values and lifestyles (Retail Guide Sweden, 2019). Companies and brands try to speak to consumers through green marketing and corporate social responsibility (CSR) practices. This is supported by Elg and Hultman (2016) who argue that a consumer considers corporate social

responsibility (CSR) aspects as a buying criterion only when there is a match between their values and self-identity, and the efforts a company takes.

The marketing discipline, however, has long been accused of stimulating unsustainable consumption (Abela, 2006; Rettie, Burchell & Riley, 2012; Sheth & Parvatiyar, 1995; Stearns, 2006) and do thus not encourage degrowth. A simple example is take-back systems in fashion stores (Stål & Jansson, 2017). Consumers get rewarded with a voucher when donating their old clothes, which encourages them to buy new clothes, simply replacing the old ones. This phenomenon can be referred to as the so-called “rebound effect” (Greening, Greene & Di, 2000; Isenhour, 2010). Bertilsson (2015) highlights that companies often cynically state that they prioritize environmental concerns, but do not act upon it. Companies mainly emphasize their commitment to sustainability to enhance their image (Jones, Hillier, Comfort & Eastwood, 2005) and to increase their profitability (Moser, 2015), rather than focusing on driving behavioral change.

Even if companies would make use of green marketing and CSR initiatives to drive behavioral change, this approach has been proven to be ineffective (McKenzie-Mohr, 2000). This can be explained by how these companies address consumers. Green marketing only addressed those already concerned about the environment but does not appeal to mainstream consumers (Peattie & Peattie, 2009; Zabkar & Hosta, 2013). CSR initiatives focus on raising awareness and increasing knowledge which serves as informative communication, relying on consumers being rational decision-makers (Hansen & Schrader, 1997; Lehner, Mont & Heiskanen, 2016). Additionally, there is a growing consumer resistance towards marketing manipulation attempts (Bertilsson, 2015). Elg and Hultman (2016) argue that CSR aspects are more likely to be considered when buying high involvement products, as for such consumption decisions consumers think more rationally and the providence of information does play a role. In contrast, the consumption of low-involvement products is rather habitual and unreflective (Rettie, Burchell & Riley, 2012). Tversky and Kahneman were one of the first to discover that people have bounded rationality and that big parts of our daily routines are performed automatically (Tversky & Kahneman, 1974). Elg and Hultman (2016), however, argue that the environmental impact of everyday products may be bigger than of high-involvement products. This is supported by Moser (2015), who states that everyday consumption – including groceries, home improvement, clothing, personal and household goods – account for one-third of the environmental impact of household consumption. As mentioned earlier in the introduction, household consumption in categories such as clothing, home interior, and leisure increased in Sweden (CSK, 2008 cited in Isenhour, 2010). Such categories show to have a serious environmental impact (Carlsson-Kanyama, Pipping Ekström & Shanahan, 2002).

Swedish policies have been focusing on information and awareness campaigns to influence the attitudes of its citizens regarding sustainable consumption (Isenhour, 2010). The assumption that by simply increasing knowledge of an issue – such as climate change – behavioral change will happen, has been proven to be incorrect (Finger, 1994; Geller, 1981; McKenzie-Mohr, 2000). This is supported by Elg and Hultman (2016) who state that Swedish consumers do not seem to bother being well informed about the environmental impact of disposables, as they do not want to spend more money and energy than necessary. The current consumption patterns

in Sweden can be explained through the so-called “attitude-behavior gap” (Bray, Johns & Kilburn, 2011). This concept refers to the misalignment between pro-environmental preferences and actual behavior (Gupta & Ogden, 2009), as consumers consciously state one thing, but then do the opposite (Bertilsson, 2015). Swedish consumers have a positive attitude towards pro-environmental behaviors, but they do not seem to act upon it (Isenhour, 2010). The consequences of climate change are not tangible enough so that acting out of self-interest becomes an easier alternative (Gupta & Ogden, 2009; White, Habib & Hardisty, 2019). It appears that companies and institutions have succeeded in creating positive attitudes through information-intensive campaigns, but there are significant barriers that knowledge alone cannot overcome (Isenhour, 2010; Lehner, Mont & Heiskanen, 2016; Tversky & Kahneman, 1974). This is supported by several studies, which state that behavioral change can simply not be achieved through increasing awareness of an issue (Abrahamse et al., 2005; Finger, 1994; Geller, 1981; Lehner, Mont & Heiskanen, 2016; McKenzie-Mohr, 2000). To come back to this “attitude-behavior” gap, we can argue that attitudes do not seem to be a good predictor for pro-environmental behavior (Gupta & Ogden, 2009).

1.2 Problematization

The background section indicates that there must be other ways besides influencing attitudes and providing information, to drive behavioral change, especially for low-involvement products. Our anecdote at the start of this introduction implies that there may be sociological motivations. Gupta and Ogden (2009) plead for a focus on the social dilemma behind environmental consumerism. They argue that behavior is not just based on one specific attitude in a certain context, it is based on how an individual tends to interact with its social surroundings which are embedded in one’s self-identity (Gupta & Ogden, 2009). Consumers construct their identity through consumption and non-consumption, but also by expressing their identity to others (Belk, 1988; Binkley, 2008; Dermody, Koenig-Lewis, Zhao & Hanmer-Lloyd, 2018; Lee, Fernandez & Hyman, 2009; Uren, Roberts, Dzidic & Levinston, 2019). As Sweden is an individualistic country, consumption serves even more as an identity marker (Retail Guide Sweden, 2019). According to Isenhour (2010), Swedish consumers may say that they do not consider what others think, but they are highly likely to conform to social norms due to their strong culture of conformity. These concepts can be understood through the theories of self-identity and social consumption motivation.

Self-identity is an expression of how one sees himself or herself, and how one wants to be seen by others. Several studies have proven that self-identity - which is context-independent - appears to be a better predictor for (pro-environmental) behavior than context-dependent beliefs and attitudes (Charng, Piliavin & Callero, 1988; Gatersleben, Murtagh & Abrahamse, 2014; Moser, 2015; Shaw & Shiu, 2002; Sparks & Shepherd, 1992; White, Habib & Hardisty, 2019). Whitmarsh and O’Neill claim (2010) that pro-environmental self-identity allows for consistency across different pro-environmental behaviors and it may, therefore, overcome the earlier mentioned challenges: the rebound effect and attitude-behavior gap. Take for example the attitudinal statement “I am likely to perform pro-environmental behavior” which is a weaker indication of consistent behavior than the self-identity expression: “I am an

environmentalist”. Whether someone will perform pro-environmental behaviors thus seems to be dependent on the extent to which someone identifies as a pro-environmentalist. However, Brick, Sherman, and Kim (2017) show that pro-environmental consumption can pose a threat to individuals who define themselves as anti-environmentalists, and behaviors are thus not performed. Besides pro-environmental self-identity, social consumption motivation appears to be a predictor for (pro-environmental) behavior (Dermody, Hanmer-Lloyd, Koenig-Lewis & Zhao, 2015; Dermody et al., 2018; Fitzmaurice & Comegys, 2006). This concept entails the need one feels for self-expression through products, brands, or certain behavior (Fitzmaurice & Comegys, 2006). As mentioned, performing pro-environmental behaviors can be a threat to one’s self-identity. It could, however, also serve as a social status symbol for those who identify as a ‘good citizen’ (Gatersleben, Murtagh & Abrahamse, 2014; Valor, 2007; Whitmarsh & O’Neill, 2010). The motivation to gain social status from pro-environmental behaviors is thus influenced by one’s surroundings. This phenomenon can be understood as conspicuous sustainability, which allows consumers to obtain status characteristics like being kind, intelligent, and cooperative (Brick, Sherman & Kim, 2017; Griskevicius, Tybur & Van den Bergh, 2010; Millet & Dewitte, 2007). According to Brick, Sherman, and Kim (2017), the more visible pro-environmental behaviors are, the more they are performed by those who identify as pro-environmentalist. Elg and Hultman (2016) argue that social status benefits are most likely to be obtained through visible, high-involvement products. We are aware that social status for low-involvement products may be lower, but as they also construct one’s identity, increasing the visibility of pro-environmental behaviors related to these low-involvement products may lead to the desired behavioral change.

According to Griskevicius, Tybur, and Van Den Bergh (2010), a public setting allows for the display of pro-environmental behaviors and status enhancement. They argue that consumers have the desire for green products when a public audience is salient (Griskevicius, Tybur & Van den Bergh, 2010). It, therefore, seems that behavioral change can be highly influenced in places where social interaction between individuals takes place, as it enables consumers to construct personal and social meaning (Ujang, Kozłowski & Maulan, 2018). Downtown shopping areas and shopping malls are public spaces where social interaction and consumption of low-involvement products happen simultaneously. Tunca and Anselmsson (2019) believe town centers could be seen as the “right place to shop” just like organic foods are seen as the “right thing to eat”. The public opinion on shopping malls is that they are a place where consumerism is promoted. Shoppers who shop at malls seem to care less about contributing to the common good (Tunca & Anselmsson, 2019). For decades, external shopping malls have however taken sales from the downtown areas both globally as also in Sweden (Bearden, 1977; Ortuño Padilla, Hermosilla & Ozores, 2017; Pratt & Pratt, 1960 cited in Tunca & Anselmsson, 2019). Promoting consumerism conflicts with the definition of sustainability (Jones, Clarke-Hill, Comfort & Hillier, 2008) and is thus an issue that needs to be tackled in the retail environment (Hampfl & Loock, 2013). Tunca and Anselmsson (2019) acknowledge that little attention in the retail literature has been paid to the issue of our consumption being driven by how consumers want to be perceived by others. Even though visitors of shopping malls may be less pro-environmental, shopping malls seem to be a more social place (Calvo-Porrá & Lévy-Mangín, 2018; El Hedhli, Chebat & Sirgy, 2013) compared to the downtown district

(Feinberg, Sheffler, Meoli & Rummel, 1989). We, therefore, wish to research whether shopping malls could be the next public space where pro-environmental behaviors could be stimulated.

To achieve this, we must understand why shoppers are attracted to a certain mall. Several factors such as the mall environment, tenant variety, and entertainment facilities play an important role. Recently, a bigger focus has been placed on the self-identification as a predictor for attractiveness (El Hedhli, Chebat & Sirgy, 2013; Ha & Im, 2012). Sirgy (1985) was the first to introduce the concept of “self-congruity”, which indicates an alignment between one’s self-image and the image of a product. Ha and Im (2012) take this concept to the shopping mall environment and argues for the occurrence of self-congruence; shoppers wish to identify with those around them. If this congruence occurs, the mall becomes more attractive. Similarly, we would like to transfer the concept of “self-brand connection” to the shopping mall. Self-brand connection indicates the connection one makes when a brand matches one’s identity (Escalas & Bettman, 2003; Escalas, Gallo & Gaustad, 2019). By making sure there is a match between the shoppers’ identity and the mall itself, including its products brands and services, the mall becomes more attractive. We, in line with Merrilees, Miller & Shao (2016), believe malls could serve as such brands. A similar concept is the so-called “consumer-company identification”, introduced by Bhattacharya and Sen (2003). According to Bertilsson (2017), consumers feel the need to identify with companies or brands for identity construction purposes. Literature shows that self-congruence, self-brand connection, and consumer-company identification is likely to increase loyalty intentions (Bhattacharya & Sen, 2003; Escalas & Bettman, 2003; Ha & Im, 2012). In the case of the mall, this entails advocating the mall and being likely to revisit (El Hedhli, Chebat & Sirgy, 2013; Ha & Im, 2012). Mall attractiveness can be influenced by shopping mall management and its marketers, as they are organized as a centralized unit with the power of choosing tenants and forcing those tenants to perform a certain marketing strategy (Teller, 2008). Shopping mall management thus seems to have the power to align their malls with the identity of its shoppers and drive behavioral change.

1.3 Purpose of the Study

The purpose of this study is to enhance the understanding of what makes consumers perform more pro-environmental behaviors and how this can be influenced by managers and marketers in the shopping mall environment, making the mall more attractive and shoppers more loyal. This purpose has been influenced by two main theoretical constructs. At the end of this paper, we aim to capture the impact of these constructs into one framework.

1.3.1 Construct One

As already discussed, the importance of driving behavioral change towards pro-environmentally friendly behavior has been well researched. While information-intensive campaigns seem to positively influence attitudes, it does not lead to the desired behavior (Gatersleben, Murtagh & Abrahamse, 2014; Isenhour, 2010; Lehner, Mont & Heiskanen, 2016;

McKenzie-Mohr, 2000; Tversky & Kahneman, 1974). As stated in the problematization, pro-environmental self-identity, social consumption motivation and the extent to which a behavior is observable by others seem to influence behavior. Despite the importance for researchers as well as practitioners, up to today, limited empirical research focuses on the effect of these concepts on pro-environmental behaviors in the physical retail environment. As far as we are aware, no academics have researched the importance of driving behaviors towards more sustainable in the shopping mall context, even though it is a public space that allows for social interaction and thus observability of certain behaviors. The visibility of behaviors concerning the pro-environmental self-identity has been researched before (Brick, Sherman & Kim, 2017; Uren et al., 2019). We wish to extend this thought to see the impact of visibility of behaviors on social consumption motivation. We consider the shopping mall environment of high importance, as it is a space where social interaction and everyday consumption – as a major contributor to carbon footprints (Carlsson-Kanyama, Pipping Ekström & Shanahan, 2002) – take place. Furthermore, malls are generally associated with consumerism (Day, 1999 cited in Nasution & Zahrah, 2012; Tunca & Anselmsson, 2019) in which the stimulation of sustainable lifestyle changes could have a major impact.

1.3.2 Construct Two

Additionally, just as Tunca and Anselmsson (2019) argue that town center management should take their responsibility for promoting sustainable lifestyles, we believe shopping mall management should do the same. For INGKA Centres, owner of several shopping malls and IKEA stores in Sweden, this is already part of their mission. They reached out to us and asked how they can win on the sustainability trend. They are firm believers in the concept of “meeting places” that allow for shopper interaction and community feeling. As stated in the problematization, when a shopping mall can align their identity with its visitors and encourages the self-congruence between its visitors, the mall becomes more attractive and loyalty intentions increase (Bertilsson, 2017; Bhattacharya & Sen, 2003; El Hedhli, Chebat & Sirgy, 2013; Escalas & Bettman, 2003; Ha & Im, 2012). We introduce the concept of pro-environmental self-identity in this context, which to our best knowledge has not been researched before.

1.4 Research Questions

We aim to achieve the purpose of our study by quantitatively assessing the two different constructs. The first part of this study assesses whether consumers perform pro-environmental behaviors since they are truly sustainable or because they seek social acceptance and social status. This may be influenced by the observability of these behaviors and the shopping context that they are in. The second research question of this study focuses on whether the concept of pro-environmental self-identity influences the extent to which a consumer can identify with a shopping mall and its shoppers and whether that makes him or her loyal to it. This has led to the formulation of the following research questions:

RQ1: To which extent does a consumers' self-identity and what others think about his/her consumption choices influence their intention to perform pro-environmental behaviors?

RQ2: To which extent does a shopping mall that adopts pro-environmental behaviors become more attractive to its shoppers and encourages them to advocate it?

1.5 Intended Contributions

As already highlighted, several relationships have been under-researched. By this means, we discuss the theoretical contributions of our study. We believe (consumption) behavior is highly influenced by consumers' self-identification and their social surroundings. Consumers' can display their identity to others through public spaces that allow for social interaction. Our first contribution is that we take the concept of pro-environmental self-identity and social consumption motivation to a specific public arena; shopping malls. Secondly, we are the first to apply the concept of social visibility on the relationship between social consumption motivation and pro-environmental behavioral intentions. We deem this important, as we believe one might not necessarily identify as pro-environmentalists but wants to be a 'good citizen' by performing certain pro-environmental behaviors as he or she cares about what others think. We, therefore, believe that for those whose social consumption motivation is high, the more observable a pro-environmental behavior becomes, the more likely they are to perform it. Our third contribution considers the attractiveness of a mall, including the concept of self-congruence and self-brand connection. As mall attractiveness increases when consumers can identify with other shoppers and the mall itself, we apply the concept of pro-environmental self-identity to further research the already existing relationship between mall attractiveness and loyalty intentions. We believe when shopping mall management gain insights into the identities of their shoppers, they can target them better and increase the connection between the mall and its shoppers. In case many shoppers identify as pro-environmentalists, the adoption of pro-environmental behaviors can make the mall more attractive. Finally, these two overarching constructs have not been linked to each other before. Especially not in a public space like shopping malls. By doing so in this thesis, we deliver a unique contribution to the literature.

Besides the theoretical contribution as discussed above, we aim for practical contributions for shopping mall management and marketers. As shopping malls are organized as a unified unit, they have the power to choose tenants, change the mall environment, and have an overall marketing strategy (Teller, 2008). More specifically, shopping malls could provide a stage for making pro-environmental behaviors more visible. Instead of promoting sustainable lifestyles on a corporate level or through green marketing practices, we aim to give insights into the importance of understanding their shoppers' identity, making behaviors more visible, which behaviors should be adopted, and how they could establish connections between their visitors and the mall.

1.6 Abbreviations

Several studies have used abbreviations for the concepts that we are examining in this thesis. To make the text more comprehensive, we adopt the same abbreviations. To ensure readability, we introduce the used abbreviations in table 1.1. below.

Concept	Abbreviation
Pro-environmental self-identity	PESI
Social consumption motivation	SCM
Social visibility	SVIS
Pro-environmental behaviors	PEB
Pro-environmental behavioral intentions	PEBI
Current and future mall attractiveness	Current MA / Future MA
Current and future loyalty intentions/mall loyalty	Current ML / Future ML

Table 1.1 Abbreviations of Concepts

1.7 Disposition

1 This thesis is structured in seven chapters. The first chapter is the introduction. It serves as an opening to the research and introduces the reader to the background, purpose, and contributions of the study. Chapter [two](#) presents a systematic literature review presenting the two main constructs studied in this thesis. In chapter [three](#) we introduce the theoretical framework and formulation of hypotheses. In chapter [four](#), the methodology is described through the philosophy, the research approach, and the design of the study. Besides that, we outline the data analysis and explain the reliability, validity, and replicability of the study. In chapter [five](#) we analyze the findings and summarize the results regarding the hypotheses and research questions. Chapter [six](#) is designated to the discussion of our results. We compare our findings against the literature. In the last chapter, [seven](#), we evaluate whether the purpose of the study has been achieved and how the research questions can be answered, resulting in both theoretical contributions as well as practical implications. Finally, we sum up the limitations of our study and propose directions for future research.

2 Literature Review

This chapter starts with the importance of changing behaviors towards more environmentally friendly lifestyles. To understand how behaviors can be influenced, we must understand the concept of self-identity, social consumption motivation, and conspicuous sustainability. Social interaction influences one's behavior, that is the extent to which consumers can identify with their surroundings. We hereby introduce the impact of public spaces where consumption takes place, such as shopping malls. We assess whether the congruence of one's identity with the mall and its shoppers leads to increased loyalty. We end with a section on non-traditional ways of sustainability marketing.

2.1 We Need to Change Behavior

The urgent need to bridge the gap between consumerism and accelerating climate change as the most pressing challenge of contemporary and future society can only be achieved through a more sustainable way of consuming. While in the 1970s the blame for environmental issues was put on population growth and developing countries, it is nowadays widely accepted that the impact of the wealthiest societies is far more substantial. Improvements by modernization are outrun by the continuous growth of consumption. In a neoliberalist manner, responsibility has thereupon been redirected towards individuals. Sustainable lifestyles are encouraged by instituted programs from the United Nations or the European Union, and transformation from consumerism to sustainability has been the goal for the last decades (Isenhour, 2010). Decision-making and behavior need to be changed towards pro-environmental alternatives to avoid jeopardizing the needs of future generations (McCann-Erickson, 2007 cited in Jones et al., 2008). This behavioral change needs to include more eco-efficient, thus greener consumption, as well as curtailment behaviors, also understood as anti-consumption (Dermody et al., 2015). While the former affords less commitment, the latter is more effortful to execute, but its successful stimulation could offer greater benefits for the environment (Jones et al., 2008).

2.1.1 The Sustainability-Marketing Paradox

As contemporary society is built upon the consumption of goods, curtailment behaviors and anti-consumption practices constitute not only a cure but a threat to the social order. An ideology that is based on economic growth seems to be in contradiction to conserve the planet. Similarly, marketing is perceived to be the antithesis of sustainability (Jones et al., 2008). However, marketing as influential tool to shape behavior plays a key role in stimulating more sustainable behaviors and lifestyles (Lehner, Mont & Heiskanen, 2016). It has been argued that studying current consumers' green behavior will help spread and change behavior in the future (Jones et al., 2008; Whitmarsh & O'Neill, 2010).

A change in lifestyle could result in sustainable long-term behavior change and thus depict a major goal for policymakers. Such a comprehensive lifestyle change affords more than the adoption of one specific behavior, but overarching changes in consumption practices (Isenhour, 2010). Therefore, a special interest in catalyst behaviors exists so that the adoption of one pro-environmental behavior leads to subsequent adoptions (Truelove, Carrico, Weber, Raimi & Vandenberg, 2014; Whitmarsh & O'Neill, 2010). However, these spill-over effects of behaviors can also happen in a rather negative way so that the positive contribution of one pro-environmental behavior justifies the performance of other rather unsustainable behavior (Whitmarsh & O'Neill, 2010).

2.1.2 Understanding Consumption

The neoclassical perspective always approached consumers as rational decision-makers and utility maximizers (Firat & Venkatesh, 1995; Trigg, 2001). In Sweden as globally, changes towards more sustainable lifestyles have been approached in an educational, information-based manner (Isenhour, 2010; McKenzie-Mohr, 2000). Furthermore, it was the basis for green marketing and CSR practices in an attempt to address environmentally concerned consumers, which turned out to be ineffective (Lehner, Mont & Heiskanen, 2016; Peattie & Peattie, 2009; Zabkar & Hosta, 2013). It used to be a common belief, that consumers make informed ethical choices, based on their rationality (Bertilsson, 2015).

In the 1970s a new perspective, Consumer-Culture-Theory, arose (Arnould & Thompson, 2018). This sociological perspective approaches consumption as a socio-cultural practice. This stream emphasizes the bounded rationality of consumers (Tversky & Kahneman, 1974). Our daily routines are highly characterized by habits, which are formed by repeatedly performing the same behaviors. Breaking habits is hard, but when repetitive actions are encouraged, such as making sustainable actions easy and creating incentives, it can lead to new habit formations (White, Habib & Hardisty, 2019). Besides that, we are highly influenced by our social surroundings. The sociological perspective thus highlights the subjectivity of consumers, the context in which decisions are made and that consumption helps us to define who we are (Belk, 1988; Firat & Venkatesh, 1995). To drive behavioral change, we must understand how consumers behave and for what reasons they consume. Late capitalism, with innumerable consumption choices, led to a consumerist society, where consumers face a constant identity crisis (Slater, 2005 cited in Soron, 2010). Consumption thus helps to construct and reconstruct an identity in a social context, in a way that products and brands act as cultural signifiers and identity markers. Consumption choices empower individuals to freely construct an identity in the plethora of signs and symbols (Arnould & Thompson, 2018; Soron, 2010).

2.2 Consumers' Self-Identity as Predictor for Behavior

Explaining and influencing behavior has been the goal of marketers and policymakers alike (Isenhour, 2010; White, Habib & Hardisty, 2019). Theories picturing what predetermines behavior and in reverse what needs to be changed to motivate behavioral change are abundant.

An established one is the Theory of Planned Behavior (TPB) (Paul, Modi & Patel, 2016; Shaw & Shiu, 2002a). As ascendant of the Theory of Planned Action, the socio-psychological model aims to predict behavior based on the idea that the intent to perform a certain behavior leads to its execution. To capture an individuals' intent, variables like his or her attitude, social norms, and perceived behavioral control towards a specific target, object, or event are measured (Sparks & Shepherd, 1992).

2.2.1 Shortcomings of the Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is often used to predict pro-environmental behavior, although it has been shown to be inconsistent and, in several studies, insignificant (Gupta & Ogden, 2009; Moser, 2015). Besides that, it has also been criticized for several shortcomings. One of the critiques is that subsequent predictions are only valid regarding specific behaviors, but overall orientations of individuals are not captured. Metaphorically speaking, consumers' attitudes "consist in fighting a nuclear threat by purchasing a family nuclear shelter, or pollution of drinking-water supplies by finding a reliable brand of bottled water" (Blackshaw, 2005, p.125 cited in Soron, 2010) and thus has a very myopic focus to universal problems. Another critique captures that the TPB mainly focuses on self-interests and thus does not capture the social context of consumers' decision making. Additionally, moral obligations, that are of high relevance in the context of pro-environmental behaviors, are left out by the TPB (Shaw & Shiu, 2002; Shaw, Shiu & Clarke, 2000). Besides that, the TPB does not address the so-called attitude-behavior gap as discussed in the introduction. A positive attitude does not necessarily lead to a translation into actual behavior (Gupta & Ogden, 2009).

2.2.2 The Self-Identity Construct

In accordance to these critics and to improve the predictive power of the TPB, several studies added, among others, the context-independent construct of self-identity (Charng, Piliavin & Callero, 1988; Gatersleben, Murtagh & Abrahamse, 2014; Shaw & Shiu, 2002; Sparks & Shepherd, 1992; Whitmarsh & O'Neill, 2010). Self-identity can be understood as the label that one uses to define oneself, either by choice or endowment (Reed et al., 2012). Instead of investing attitudinal statements like 'I perform environmentally friendly behaviors', the self is investigated through statements like 'I am an environmentalist'. The logic behind this construct is that once an issue, like sustainability, becomes the label and thus important to the individual's identity, behavior is altered consequently (Reed II & Forehand, 2019).

Self-identity captures the way an individual sees oneself by encompassing habits, consumption, goals, values, and narratives (Gatersleben, Murtagh & Abrahamse, 2014). Through one's identity, differentiation from others, and confirmation with values, beliefs, and behaviors of groups that one is attracted to is allowed. Consumption allows consumers to express the self to others, to build and enhance themselves (Belk, 1988; Trigg, 2001). Self-identity is thus a dynamic construct that captures the personal and social identity that one has or wants to have and the social context in which these subjective identities are (re-)constructed through social

interaction (Christensen et al., 2004; Whitmarsh & O'Neill, 2010). The social interaction that takes place through consumption is the communication of one's desired identity to others (e.g. to be an environmentalist). Consumption choices are made because of its communicative and symbolic value; that is what they mean to us and say about us (Gabriel & Lang, 2006). Different literature streams have tried to investigate the identity concept through various approaches. These different approaches led to different identity theories like social identity theory (Tajfel & Turner, 1979), identity theory (Burke, 1980; Stryker, 1968 cited in Hogg, Terry & White, 1995; Reed II & Forehand, 2019), Consumer Culture Theory (Arnould & Thompson, 2018), or originated in sociology (Charng, Piliavin & Callero, 1988; Reed II & Forehand, 2019).

Some socio-psychologists would presumably argue that an individuals' self-identity is already reflected in beliefs, values, and attitudes and that the addition of self-identity would not be a theoretical or empirical advance (Sparks & Shepherd, 1992). Nevertheless, research has repeatedly shown that the self-identity construct predicted behavior or behavioral intent over and above the TPB (Gatersleben, Murtagh & Abrahamse, 2014; Shaw & Shiu, 2002; Sparks & Shepherd, 1992; Terry, Hogg & White, 1999; Fekadu & Kraft, 2001 cited in Whitmarsh & O'Neill, 2010). Although this result had been surprising for the ones first operationalizing it in their studies (Charng, Piliavin & Callero, 1988; Sparks & Shepherd, 1992), it has continuously shaped the research realm, and lately the pressing topic sustainability.

2.2.3 Pro-Environmental Self-Identity

The extent to which a consumer identifies as a pro-environmentalist has been studied through the concept of pro-environmental self-identity (PESI). Just like self-identity predicts behavior, PESI shows to predict pro-environmental behavior (Brick, Sherman & Kim, 2017; Dermody et al., 2015, 2018; Gatersleben, Murtagh & Abrahamse, 2014; Shaw & Shiu, 2002; Sparks & Shepherd, 1992; Whitmarsh & O'Neill, 2010).

Charng, Piliavin & Callero (1988) found that identity explains behaviors better especially for repeated behaviors. Consumers are driven to keep a stable and consistent sense of self, both over time and across situations (Bhattacharya & Sen, 2003). More recent research from Whitmarsh and O'Neill (2010) and Gatersleben, Murtagh & Abrahamse (2014), confirmed this once more. They state that the pro-environmental self-identity (PESI) construct serves as a more stable, cross-situational construct than values and attitudes, as it allows for consistency and continuity. This can be explained through the fact that consumers avoid threatening the self as they want to uphold and defend their identities in social contexts (Bertilsson, 2015; Bhattacharya & Sen, 2003; Gatersleben, Murtagh & Abrahamse, 2014; Murtagh, Gatersleben, Cowen & Uzzell, 2015). The deficiencies of a model that is mainly based on self-interested motives can seemingly be overcome by the self-identity measure (Shaw & Shiu, 2002). The rational choice model on which the TPB is based – that consumers act as independent choice makers who maximize benefits – ignores how everyday consumption choices are made. They are embedded in social and cultural associations and other non-instrumental motivations like values, emotions, and self-conceptions. Behavioral change towards a more sustainable world requires a deeper understanding that is not strictly rational (Sorron, 2010).

While the cognitive construct of attitudes is easy to change through the providence of information (Ajzen, 2005 cited in Gatersleben, Murtagh & Abrahamse, 2014), self-identity is due to its stability and consistency over contexts harder to change, but therefore more interesting to research. Current information-based communication that resulted from the attitudinal research failed to result in the necessary change towards pro-environmental behavior and lifestyles (Abrahamse et al., 2005; Gatersleben, Murtagh & Abrahamse, 2014; Lehner, Mont & Heiskanen, 2016). Nevertheless, a similar gap like the attitude-behavior gap may appear. This so-called intention behavior gap pinpoints that even the intended behavior is not translated into actual behavior. This gap is easier to overcome than the attitude-behavior gap, as intentions are more likely to be translated into action, especially when easier to perform (Sheeran, Trafimow & Armitage, 2003). Understanding the self-identity measure and thus the sociology behind consumption may allow overcoming consumer cynicism (2015) and the intention-behavior gap. This can be achieved through more efficient ways of communicating which may stimulate the behavioral and lifestyle change that is needed (Dermody et al., 2018; Gatersleben, Murtagh & Abrahamse, 2014; Isenhour, 2010; Whitmarsh & O'Neill, 2010).

As consumption has communicative and expressive value, consumers may be more willing to participate in certain behaviors when they work as identity relevant signifiers through their display in a social context (Brick, Sherman & Kim, 2017; Soron, 2010).

2.3 Social Consumption Motivation

Why do people consume? Finding the answer to this philosophical question has been the goal of researchers and marketers ever since. In modernist times, the purpose of consumption was mainly to fulfill basic needs or to express status to others. Consumers derived utility from a product and the satisfaction of needs led to an increase in happiness (Firat & Venkatesh, 1995). The consumption of luxury goods in a social setting could furthermore help to display status and wealth (Veblen, 1899 cited in Trigg, 2001). Such conspicuous consumption could, therefore, serve the purpose of communicating one's role and standing in society to others. In contemporary consumerist society, consumption additionally serves to fulfill the goal of symbolizing one's (desired) identity to others (Belk, 1988; Fitzmaurice & Comegys, 2006). As we have seen in the previous section, consumption inhabits a communicative and symbolic value that is acquired in social contexts.

2.3.1 The Symbolic Meaning of Consumption

The identity and the cultural meaning that had been derived from one's role in society (e.g. as a company worker or father) has been transferred to consumer goods in contemporary times (Fitzmaurice & Comegys, 2006; McCracken, 1986). With every consumption choice, the individual purchases not only a product's utility but its symbolic meaning to the social surroundings. For example, one's possession and display of a Harley Davidson motorcycle communicates the membership to the biker community and the symbolic meaning (like e.g. masculinity and ruggedness) that is attached (Cova, 1997). Depending on the nature of the

product, the symbolic meaning varies; high-involvement products like cars and fashion are due to their observability better to communicate a self-project or a group membership than e.g. a light bulb or soap (Elg & Hultman, 2016).

2.3.2 The Need for Self-Expression

The extent to which one feels the need for self-expression through products and brands can be depicted by the concept of social consumption motivation (SCM). The concept encompasses the extent to which an individual's consumption choices (products, brands, behaviors) are guided by the opinion of others in the social context (Fitzmaurice & Comegys, 2006). SCM is closely related to materialism; this is the extent to which possessions are central to an individual's life and to which extent they help one to anchor a personal identity (Micken & Roberts, 1999 cited in Fitzmaurice & Comegys, 2006). The more materialistic someone is, the more well-being they derive from acquisitions, and the more they judge their own and others' success by the number and quality of accumulated possessions (Richins & Dawson, 1992). The more one's consumption is motivated by social reasons and the need to display an identity, the more important the observation and evaluations of others become (Fitzmaurice & Comegys, 2006). In contemporary Swedish consumer culture, it is however key not to stand out too much from the mainstream as consensus making and egalitarianism are values that are deeply embedded in society (Bertilsson, 2015; Isenhour, 2010). It is perceived to be bad to consume for status reasons (Johansson-Stenman & Martinsson, 2006). Some consumers appear to be cynical towards others who display themselves as too different from the middle. They are believed to not conform with the Swedish culture as they aim for being better than others (Bertilsson, 2015). Although Swedes may be critical towards others' need for distinction, they regardlessly consume status markers in the same cynical manner (Johansson-Stenman & Martinsson, 2006).

Both concepts, self-identity, depicting what you are and want to communicate to others, and SCM, as the need for expression of the identity, are highly intertwined and important to consider when illuminating contemporary consumption.

2.3.3 SCM in the Sustainability Context

In the sustainability context, social consumption motivation is of particular interest since real sustainable behavior would entail the reduction or avoidance of consumption. How green consumption and SCM influence pro-environmental behaviors has however only been studied to a limited extent (Dermody et al., 2015, 2018). Dermody et. al (2015) examined the impact of SCM on pro-environmental behaviors in emerging and industrialized markets and found consistent results. SCM served as a positive predictor of behavior in China and the United Kingdom (Dermody et al., 2015). Nevertheless, a follow-up study in China and Poland, only showed an indirect effect, through the mediator PESI. SCM did not predict pro-environmental curtailment behavior in the Chinese market (Dermody et al., 2018). In both studies, SCM showed to have a direct impact on PESI in all the markets, depicting the desirable expressive capability of a pro-environmental identity (Dermody et al., 2015). This kind of status-

enhancing consumption is captured by the concept of conspicuous sustainability (Sexton & Sexton, 2014). Dermody et al. (2015) nevertheless acknowledge that cultural differences exist and should be taken into account as they impact the predictive strength of the measure.

2.4 Conspicuous Sustainability and Social Visibility

Conspicuous consumption originally describes the consumption to openly display costly goods to communicate wealth and status to others (Veblen, 1899 cited in Trigg, 2001). The products to acquire these status traits are usually products from prestigious brands like e.g. cars, watches, and clothes. While in modernist times status was mainly expressed and obtained through the consumption of luxurious goods, austerity seems to work as a status marker in contemporary times (Delgado, Harriger & Khanna, 2015; Griskevicius, Tybur & Van den Bergh, 2010; Johansson-Stenman & Martinsson, 2006; Sexton & Sexton, 2014; Zabkar & Hosta, 2013).

2.4.1 Green as a Status Symbol

Griskevicius, Tybur, and Van den Bergh (2010) have found that green product alternatives were preferred over more luxurious products when status motives were activated. This is remarkable, as sustainable products are usually more expensive and/or of lower quality (Griskevicius, Tybur & Van den Bergh, 2010). The reason why consumers buy these can therefore not be explained only by utilitarian economic exchange. The functional value of (more) sustainable products, but also the high symbolic value of these products needs to be taken into consideration (Isenhour, 2010; Sexton & Sexton, 2014; Soron, 2010; Zabkar & Hosta, 2013). Green product alternatives allow consumers to not only act in a socially acceptable way but the chance to communicate the message that they a 'good citizen' to others. By conspicuously consuming green behaviors, consumers obtain status characteristics like e.g. being kind, intelligent, trustworthy, helpful, and cooperative (Griskevicius, Tybur & Van den Bergh, 2010; Luomala, Puska, Lähdesmäki, Siltaoja and Kurki, 2020; Millet & Dewitte, 2007). Furthermore, the consumption of green product alternatives can result in being perceived to be a more desirable friend, leader, and romantic partner (Griskevicius, Tybur & Van den Bergh, 2010; Luomala et al., 2020).

2.4.2 The Concept of Conspicuous Sustainability

Conspicuous sustainability thus describes that – just as luxurious goods – green consumption choices can work as status symbols. Unconditional altruistic behavior that is serving the purpose of maximizing the joint outcome at private costs, can serve as a costly status signal for the performant (Millet & Dewitte, 2007). That green products serve to fulfill status motives is downplayed by consumers when directly asked about their organic food consumption (Luomala et al., 2020). In a similar vein, consumers that bought a hybrid Prius reported environmental reasons as least important, and the statement the car makes about the driver as most important (Sexton & Sexton, 2014). Recent research has uncovered that the social status

an individual receives varies. While curtailment behaviors are associated with lower or neutral social status, eco-efficient behaviors like e.g. buying an electric car work better as a status signifier (Brick, Sherman & Kim, 2017; Uren et al., 2019).

2.4.3 Sustainability as Costly Signal

A theory that is often used to explain such status signifiers is the Costly Signaling Theory drawing from evolutionary biology (Zahavi, 1975). It explains that the display of behaviors that are costly – in a way that they either afford energy, time or risk – work as a signal of desirable qualities (Bliege Bird & Smith, 2005). In biology, for example, the large tail of a peacock works as such a signal. The tail constitutes a handicap when encountered by predators. However, the risk that resides in such a tail increases attractiveness to other peacocks and increases its mating chances (Nelissen & Meijers, 2011). In the context of conspicuous consumption, a behavior can work as a costly signal when its display involves monetary effort. The effort of a behavior depicts only one of four characteristics of costly signals. An action must be easily observable and result in unobservable associated quality traits for the individual (Griskevicius, Tybur & Van den Bergh, 2010). Lastly, the displayed behavior is supposed to result in an increase in fitness for the signaler. In this context, such a fitness benefit has been found for the driver of luxurious cars; people do not honk as quickly when the car ahead of them is more expensive (Doob & Gross, 1968 cited in Nelissen & Meijers, 2011).

When it comes to conspicuous sustainability curtailment behaviors, like taking public transport or shopping second-hand, may have lower financial costs but are more effortful than their unsustainable counterparts. As in the biological sense, the effort of behavior varies in its form. While some pro-environmental behaviors are more time-intensive, some are more costly or demand a sacrifice of quality (Whitmarsh & O’Neill, 2010). The findings of Uren et al. (2019) support this definition of effort; they have shown that financial costs and effort did not interact when predicting social status. De Nardo, Brooks, Klinksy and Wilson (2017) state that certain efforts for performing pro-environmental behaviors may increase social status in the moment, but loses that value over time. A fully electric Tesla might win from its previous status marker, the hybrid Prius (Young, 2015 cited in De Nardo et al., 2017), so does veganism win over vegetarianism. As it becomes more common to be a vegetarian, veganism is now becoming the new status maker (Khomani, 2015 cited in De Nardo et al., 2017). The continuous “fight” for social status markers may encourage the adoption of more environmental behaviors and sustainable consumption over time (De Nardo et al., 2017).

2.4.4 Social Visibility

In line with the Costly Signaling Theory, Griskevicius, Tybur and Van den Bergh (2010) found that green consumption alternatives are preferred in public over private settings. Individuals are more generous and are more likely to engage in pro-social behavior when being watched (Nettle, Harper, Kidson, Stone, Penton-Voak & Bateson, 2013; Van Bommel, Van Prooijen, Elffers & Van Lange, 2014; Van Rompay, Vonk & Fransen, 2009). In alignment with that, recent research has found that the social visibility of behaviors is moderating the relationship

between one's identity and performed pro-environmental behavior (Brick, Sherman & Kim, 2017). Brick, Sherman, and Kim (2017) found contrasting effects of social visibility, based on the extent to which one defines as pro-environmentalists. Individuals that defined themselves as anti-environmentalists avoided highly visible pro-environmental behaviors to keep their 'brown' reputation. On the other end did the 'greens' prefer highly visible sustainable behaviors. The social visibility had a moderating influence in the way that highly visible products helped pro-environmentalist to reinforce their pro-environmentalist identity (Brick, Sherman & Kim, 2017). Increased social visibility of pro-environmental behavior does not only serve to fulfill identity projects but has shown to be a predictor of social status (Uren et al., 2019). Eco-efficient behavior, like e.g. buying from an environmentally friendly brand, is easily observable by others and the motive, as well as the (financial) costs, are present for the observant. A product, brand, or behavior can only work as a costly signal and thus as a status symbol when it is effortful and observable by others (Uren et al., 2019). However, curtailment behaviors, like shopping second-hand, suffer from the fact that they are harder to observe. Lower social visibility and motive ambiguity hamper their potential as costly signal (Brick, Sherman & Kim, 2017; De Nardo et al., 2017; Uren et al., 2019). Consequently, these behaviors have lesser symbolic meaning. It is therefore not surprising that social consumption motivation predicted curtailment behavior negatively (Dermody et al., 2018). The motive behind a curtailment behavior could be frugality, environmentalism, or a combination of both. This motive ambiguity can then increase the risk of being perceived as having lower social status (De Nardo et al., 2017).

Social visibility is assumed to have a varying effect across contexts (Brick, Sherman & Kim, 2017). Since the need for status in Sweden is rather low compared to other countries (Bertilsson, 2015; Isenhour, 2010; Johansson-Stenman & Martinsson, 2006), we assume that curtailment behaviors are performed regardless. However, as mentioned earlier, Swedes have the highest disposable income in Europe and despite their environmental awareness, consumption increases (Isenhour, 2010).

2.5 Literature Framework Construct One

We hereby wish to summarize the above-discussed literature. Both pro-environmental self-identity (PESI) and social consumption motivation (SCM) predict current pro-environmental behaviors and in two studies also behavioral intentions (Sparks & Shepherd, 1992; Whitmarsh & O'Neill, 2010). Dermody et al. (2015, 2018) researched the influence of PESI on the relationship between SCM and pro-environmental behaviors. Two studies investigated the influence of social visibility (SVIS) on the relationship between pro-environmental self-identity (PESI) and pro-environmental on pro-environmental behavior (PEB) (Brick, Sherman & Kim, 2017; Uren et al., 2019). Figure 2.1 conceptualizes the relationships between the mentioned concepts.

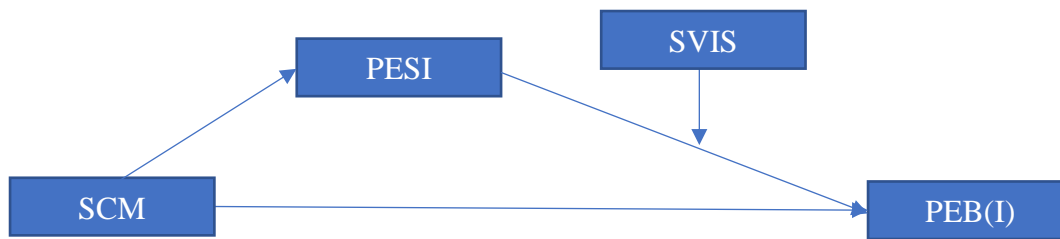


Figure 2.1 Conceptualized Framework Construct One

2.6 Personal and Social Meaning in Public Spaces

The concepts addressed, namely self-identity, social consumption motivation, and social visibility, as an important characteristic of an identity-reconstructing costly signal, all consider the social context in which consumption happens. The social context thus has a major influence on our consumption decisions. Places, where behaviors and thereupon identities can be observed and conspicuously displayed, are of high interest to understand consumers' decision-making.

2.6.1 Social Interaction in Public Spaces

Public spaces can constitute such a place as personal and social meaning can be constructed (Ujang, Kozlowski & Maulan, 2018). Oldenburg (1999) describes these places as “third places”. These depict locations – not home or the workplace – to which one can escape in order to meet and connect with friends, co-workers, and strangers (Mehta, 2013). Examples of such third places are community centers, schools, shopping streets, parks, plazas, sideways, and shopping malls (Altman & Zube, 1989; Carr et al. 1992, cited in Francis, Giles-Corti, Wood & Knuiman, 2012). Cova (1997) captures places where social links are (re)constructed as linking places. Social support and communality could work in a postmodern world to satisfy a user (Goodwin, 1994 cited in Cova, 1997).

Besides an individual's social experiences, functional and emotional elements are essential for favorable evaluations and to build attachments with places. The interaction in a place, form a places' identity and the subsequent associations make visitors' experiences more meaningful and memorable (Ujang, Kozlowski & Maulan, 2018). People thus bond and link through social interaction in public spaces to satisfy socialization needs and foster a places' identity.

2.6.2 Consumption in Public Spaces

Examples of public spaces where social interaction and consumption of low-involvement products takes place simultaneously are downtown shopping areas and shopping malls (Tunca & Anselmsson, 2019). Furthermore, everyday products are still mainly bought in brick-and-mortar stores (Jones et al., 2005). Nevertheless, small independent and authentic retailers are getting replaced by large mass-producing stores (Jones et al., 2005; Teller, 2008). The density

of these large stores is especially high in shopping malls. The rise of shopping malls has led to a weakened attachment to the downtown shopping area. These areas are no longer seen as the vital retail places as external shopping malls, as well as online retail, are taking away sales (Tunca & Anselmsson, 2019; Ujang, Kozlowski & Maulan, 2018). The e-commerce sector, although growing constantly, does not allow for social interaction and the observation of behaviors (Brick, Sherman & Kim, 2017) like shopping malls do. Tunca and Anselmsson (2019) argue that shopping malls attract a less sophisticated and less moral consumer segment than the downtown area. Also, malls are associated with consumerism (Jones et al., 2008; Day, 1999 cited in Nasution & Zahrah, 2012) As consumerism conflicts with the idea of degrowth, it could imply that it is less likely that pro-environmental behaviors are performed in a mall. Nevertheless, literature shows that mall shoppers have high needs for social affiliations (Swinyard, 1998). Even though under-researched, shopping malls depict a social place (Feinberg et al., 1989) and individuals could perform social activities and links (Bloch, Ridgway & Dawson, 1994; Cova, 1997; Francis et al., 2012; Ujang, Kozlowski & Maulan, 2018). Tunca and Anselmsson (2019) state that little attention has been paid to this issue, consumption being driven by how we want to be seen by others, in the retail literature. Shopping malls foresee consumers in their conspicuous consumption need (Jones et al., 2005) as well as in their need for social interaction (Feinberg et al., 1989). Through the development of shopping malls – which offer a lot of variety, promotion, and entertainment facilities – consumption does not get discouraged. Shoppers visit shopping malls for their convenience and the fact that prices are usually lower than in the city center (Tunca & Anselmsson, 2019). As mentioned earlier, promoting consumerism is the anti-thesis of sustainability (Hampl & Look, 2013). It can, therefore, be stated that there is a tension between consumerism and sustainable consumption choices. Retailers recognize the impact their business has on the environment and are actively taking their corporate social responsibility (Jones et al., 2008), which in our opinion is however limited in terms of an attempt to change consumers' behavior towards more sustainable practices. If retailers keep focusing on energy efficiency and supporting local communities, they do not contribute to discouraging consumerism through their daily retail practices.

2.7 Shopping Malls

In order to understand how to change consumers' behavior in shopping malls, we need to understand for what reasons shoppers visit malls. We deem it remarkable that consumers' actions in shopping malls have been insufficiently researched (Feinberg et al., 1989), given the fact that shopping malls are one of the most important shopping channels in today's society (Jones et al., 2005; Teller, 2008). The focus has always been on the store itself and communication in-store, rather than the mall as a whole (Bloch, Ridgway & Dawson, 1994).

2.7.1 Recreational and Social Activities at the Mall

The limited research is however very consistent in its findings. Contradicting to the longstanding belief that malls are just hubs for economic transactions, they have now turned into places for recreational and social activity (Graham, 1988 cited in Bloch, Ridgway & Dawson, 1994). Shopping malls thus no longer just serve the utilitarian value of shopping, but also fulfill a hedonic pleasure through service outlets, entertainment providers, and several food options (Bloch, Ridgway & Dawson, 1994; Calvo-Porrall & Lévy-Mangín, 2018; Swinyard, 1998). Recent literature shows that consumers experience enjoyment and excitement through a variety of offerings such as music, events, gaming areas, and movie theaters (Calvo-Porrall & Lévy-Mangín, 2018; Kesari & Atulkar, 2016; Makgopa, 2018). According to Kim, Lee, and Suh (2015) customers visit a mall for both shopping and culture, arguing that it has become part of their lifestyle.

Feinberg et al. (1989) state that shopping malls are seen as a more social place to shop, compared to the downtown shopping area. Consumers also experience hedonic pleasure from the social interaction in which shopping is seen as a chance to meet and talk about things not necessarily related to the retail environment (Bäckström, 2011; Calvo-Porrall & Lévy-Mangín, 2018; El-Adly & Eid, 2015). According to Swinyard (1998), those who enjoy social interaction and have a high need for belonging, are more likely to be heavy mall visitors. Besides that, Swinyard (1998) showed that there is a positive relationship between those seeking excitement at the shopping mall and the frequency of their visits (Swinyard, 1998). El Hedhli, Chebat and Sirgy (2013) summarize the above by stating that consumers meet at the shopping mall to consume entertainment options and to socialize. A visit to the shopping malls fulfills their need for leisure and enhances their social well-being (El Hedhli, Chebat & Sirgy, 2013).

2.7.2 Changing the Shopping Mall Environment

Research shows that when the image of a mall – also understood as the attractiveness of a mall – is managed well, it may lead to customer satisfaction, higher visiting as well as buying intention and possibly word-of-mouth promotion (El Hedhli, Chebat & Sirgy, 2013; Ha & Im, 2012). The perception consumers hold about a shopping mall is influenced by several factors. The most researched factors that have a significant impact on loyalty intention and satisfaction are tenant variety, entertainment facilities, promotional activities and the physical environment (Anselmsson, 2006; Calvo-Porrall & Lévy-Mangín, 2018; El Hedhli, Chebat & Sirgy, 2013; Mohammad Shafiee & Es-Haghi, 2017; Ortegón-Cortázar & Royo-Vela, 2017). Teller (2008) supports the above and states that the environment of a shopping mall allows for a better adaptation to consumers' needs than the downtown shopping area because it acts as one centrally managed unit. It is much easier to include atmospheric stimuli such as music, smell, decoration, and change the layout (Teller, 2008). Teller (2008), Anselmsson (2006), and Calvo-Porrall and Lévy-Mangín (2018) state that tenant variety is the most important pull factor and image influencer. This is supported by Chebat, Sirgy and St-James (2006), who argue that improvements in mall image are beneficial to the stores and vice versa. When the image of stores within a shopping mall is positive, this leads to an overall positive image of the mall (Chebat, Sirgy & St-James, 2006).

To our knowledge, there is no literature on the impact on shopping malls' image when including tenants that allow for sustainable behaviors – such as donating clothes – or tenants that offer sustainable options such as second-hand shopping and repair services. As far as we know, sustainability is not a concept that has been studied in the shopping mall context, but only in relation to specific categories – such as clothing (Stål & Jansson, 2017) – and to specific behaviors – such as buying fair-trade products (Shaw & Shiu, 2002).

The only available literature concerning shopping malls is about sustainable building design and store features (Ogle, Hyllegard & Dunbar, 2004; Ortegón-Cortázar & Royo-Vela, 2017). Ogle, Hyllegard and Dunbar (2004) e.g. describe the usage of natural or energy-efficient light and the use of recycled materials in store design. Their findings suggest that changes to the physical environment, through including a more sustainable retail design, positively influence buying intentions since these consumers wish to communicate their identity as an environmentally responsible citizen (Ogle, Hyllegard & Dunbar, 2004). Ortegón-Cortázar and Royo-Vela (2017) found a significant positive effect on mall image through changes in the physical environment that were related to the inclusion of natural spaces, such as environments with vegetation and natural materials. We believe this way of looking at environmentalism is myopic and does not aim for long-term lifestyle changes.

2.7.3 Shopping Mall Management

The management of downtown shopping streets and shopping mall management is very different. Since malls are managed as a single unit – by e.g. real estate or retail companies -, they have the power to choose tenants that fit their positioning, and “force” these tenants into certain strategies and marketing efforts (Teller, 2008). As mentioned earlier, the variety – in terms of brands, stores, and services – is important for a malls' image (Ortegón-Cortázar & Royo-Vela, 2017). Teller (2008) supports this and adds that shopping malls' profit from large retailers that are well known since they attract the highest share of visitors. Malls are less suitable for smaller retail tenants (Levy & Weitz, 2006; Teller, 2008) as the layout of malls is not designed for them.

This may be an explanation of why sustainable consumption and shopping malls do not go well together. For both economic as well as layout reasons, it is simply hard to include more sustainable options such as second-hand stores and repair providers. Nevertheless, there are several shopping malls in Sweden – such as Emporia in Malmö (Myrorna Secondhand, 2020) – that already offer space to such tenants besides the larger retailers, to foresee in consumers' needs. A large real estate provider – INGKA Centres – collaborates with its tenants during the yearly “sustainability week” event in April, by organizing workshops and educating consumers on their environmental impact (A. Jensen, personal communication, 4 March 2020).

2.8 Mall Image and Self-Congruence

Chebat, Sirgy and St-James (2006) were one of the first to acknowledge the impact of “self-identification” on the image of a shopping mall. They state that stores are known to have a

certain “store image” (Martineau, 1958 cited in Chebat, Sirgy & St-James, 2006; Mazursky & Jacoby, 1986), but among others claim that shopping malls do so too (Bearden, 1977; Chebat, Sirgy & St-James, 2006; Downs, 1970).

2.8.1 The Concept of “Self-Congruence”

More recent studies also acknowledge this self-identification as an important factor besides tenant variety, entertainment facilities, promotional activities, and the physical environment (El Hedhli, Chebat & Sirgy, 2013; Ha & Im, 2012). They have shown that consumers prefer to visit a shopping mall where they can meet other shoppers who are like them. Simply put; people they can identify with (El Hedhli, Chebat & Sirgy, 2013). Sirgy (1985) was the first to introduce the concept of self-congruity and has been the basis for several studies. When other shoppers at a shopping mall match one’s personal identity, “self-congruence” occurs (El Hedhli, Chebat & Sirgy, 2013; Ha & Im, 2012).

2.8.2 Symbolic Meaning through Other Shoppers

The hedonic shopping value is interlinked with the symbolic meaning the retail environment increasingly tries to provide. As mentioned earlier, shopping is no longer focused on delivering tangible and functional offerings. Tangible environmental cues – e.g. changes to the physical environment of a shopping mall – have been extensively studied, but the impact of shoppers on other shoppers – intangible environmental cues – has not received much attention (Chebat, Sirgy & St-James, 2006; Zhang & Bloemer, 2008). Self-congruence happens to predict hedonic shopping value and loyalty intentions (Ha & Im, 2012; O’Cass & Grace, 2008) just like tangible factors such as tenant variety, promotional activities, and the physical environment (Calvo-Porrá & Lévy-Mangín, 2018). Loyalty intention entails both word-of-mouth as well as the intention to visit the mall again (Calvo-Porrá & Lévy-Mangín, 2018; Ha & Im, 2012; Ortegón-Cortázar & Royo-Vela, 2017). Zhang & Bloemer (2008) call for more empirical research due to the inconsistent results of the moderating effect of self-congruence. As the congruence of a shoppers’ self-identification and the image of other shoppers in the mall environment, a symbolic attribute, is likely to play an important role in the way consumers perceive the mall (Ha & Im, 2012). When self-congruence can take place, shoppers may experience psychological benefits, through which we can assume that a shopping mall has then succeeded in providing symbolic meaning. We wish to express that shopping mall management should pay more attention to intangible cues such as self-congruence, since tangible cues are already common in today’s retail environment.

2.8.3 Increasing the Connection between Malls and Its Visitors

Shopping mall management can encourage shoppers’ need for social interaction and entertainment by organizing social events and activities (Ha & Im, 2012). When we combine the above with previously mentioned theories on pro-environmental self-identity and social consumption motivation, we can argue for environmentally-focused events which may lead to

self-congruence between shopper segments who care about the environment and who want to show this to others (Chebat, Sirgy & St-James, 2006; El Hedhli, Chebat & Sirgy, 2013; Sirgy, 1985). Chebat, Sirgy, St-James (2006) argue that shopping mall management should pay attention to how a mall's image fits the culture and identity of their visitors. They also state that the image of a mall gets influenced by the image of the stores that are located inside (Chebat, Sirgy & St-James, 2006). Studies on image transfer indicate that smaller stores are positively impacted by the image of major stores, such as department stores or international chains. Discounters, however, have a negative image transfer on those smaller stores (Kirkup and Rafiq, 1994 cited in Chebat, Sirgy & St-James, 2006). The impact of the inclusion of stores focused on pro-environmental behaviors has not been researched. Given this, we can assume that when a mall emphasizes the larger stores by anchoring them - which will then positively influence the mall image - and includes smaller stores that offer sustainable options, the overall mall image will still be positive. This kind of spill-over effect (Whitmarsh & O'Neill, 2010) gives both shoppers, the ones that come for the commercial stores and the ones that want to perform more sustainable behaviors, the opportunity to experience a sense of self-congruence.

2.8.4 “Self-Brand Connection” for Sustainable Options

The shopping mall can even play a bigger role through the concept of “self-brand connection”. We, in line with Merrilees, Miller, and Shao (2016), believe that shopping malls - with its stores, brands, and products - can function as a brand itself. Self-brand connections are the link between a brand - or in our case a shopping mall - and a consumer's identity (Escalas, Gallo & Gaustad, 2019). Escalas and Bettman (2003) believe that such connections are of importance for consumers' identity construction. A brand that helps a consumer extend him or herself to achieve his or her identity goal (Belk, 1988) is likely to be rewarded with increased loyalty intentions (Escalas, Gallo & Gaustad, 2019). These connections are likely to evolve when a salient reference group has a preference for this brand (Escalas & Bettman, 2003). Self-brand connections can be divided into experiential and symbolic. While the first one touches on the experiences one has had with a particular brand in the past, the latter one captures if the brand helps with one's self-communication (Escalas, Gallo & Gaustad, 2019). Consumer-company identification depicts a similar concept, and captures the relationship a consumer builds with a company. Just as self-brand connections, it captures the need for identification. Bhattacharya and Sen (2003) argue that such identifications cannot solely be imposed by companies, as they must be sought after by consumers. The level of identification with a brand, a company or a mall can, besides increased loyalty, lead to consumers promoting the company, recruiting new customers and defending the company against negative information (Bertilsson, 2015; Bhattacharya & Sen, 2003). These concepts are, however, not interchangeable as consumer-company identification draws upon social identity theory, while self-brand connection aims to capture self- and social identity simultaneously (Bhattacharya & Sen, 2003; Escalas & Bettman, 2003; Kettle, 2019; Reed II & Forehand, 2019). As the concept pro-environmental self-identity is based on identity theory, we wish to be consistent by focusing on self-brand connections rather than consumer-company identification.

By making sure there is a match between the shoppers' identities and the mall itself, including its products and brands, literature suggests that the mall becomes more attractive (Ha & Im, 2012). Nonetheless, the attractiveness of a company is dependent on the competitive landscape. A mall's attractiveness would thus be relative to other malls in a shoppers' consideration set (Bhattacharya & Sen, 2003). We assume that environmentalists build self-brand connections with shopping malls because they provide them with the ability to conspicuously perform pro-environmental behavior and thus helps them fulfill their pro-environmental identity project (e.g. through second-hand shopping, eating vegetarian, buying sustainable fashion brands).

2.8.5 Symbolic violence

Pro-environmentalists publicly perform pro-environmental behaviors that could, according to us, be copied by other consumer segments whose motivation to consume is based on conspicuous sustainability. That is, those who want to satisfy their personal needs and need for status (Zabkar & Hosta, 2013). The extent to which a shopping mall should invest in these kinds of actions in order to drive behavioral change should be carefully considered (A. Jensen, personal communication, 4 March 2020). Consumers are likely to adapt their behaviors to the observable actions of other members of a group they can identify with (Argo, 2019; Christensen et al., 2004; Luomala et al., 2020; Terry, Hogg & White, 1999). However, when the group differences are too big, as Brick, Sherman, and Kim (2017) show through identifying the "greens" and the "browns", behavior will not be copied but completely ignored. In other words, when a shopping mall focuses too extensively on the desires of one specific group, e.g. the "greens", it may negatively affect another group, e.g. the "browns", as they may experience a threat to their selves and may not be able to connect with the mall and its shoppers anymore. Bertilsson (2017), just as Dutton and Dukerich (1991), claims that changes in a company's identity may lead to consumer resistance. As certain green behaviors and products gradually become normal over time (Rettie, Burchell & Riley, 2012), we claim that changes in a mall need to be considered carefully to avoid negative consequences for the mall's image and in turn intention to visit.

We however assume that the differences in groups in Sweden are less polarized compared to the United States. Even though Swedes would state they do not care about others' opinions, it is anchored in their culture to conform to social norms (Isenhour, 2010). Thus, the so-called imposed symbolic violence (Arnould & Thompson, 2018) on Swedish consumers', unlike those in the United States, may actually lead to conformity with the desired behavior (Isenhour, 2010). Given this, the shopping mall can thus play a major role in driving behavioral change.

2.9 Literature Framework Construct Two

Figure 2.2 conceptualizes the relationship between the most highlighted concepts. Self-identification shows to be part of mall attractiveness (MA) (El Hedhli, Chebat & Sirgy, 2013; Ha & Im, 2012). These factors together and separately predict mall loyalty. Mall loyalty can be understood as word-of-mouth promotion or the intention to revisit the mall (Calvo-Porrá &

Lévy-Mangín, 2018; Ha & Im, 2012; Ortegón-Cortázar & Royo-Vela, 2017). Self-brand connection, just like self-congruence, has the same effect on loyalty intentions (Escalas & Bettman, 2003). In this case, loyalty implies being loyal to a brand. We believe that these two concepts can be merged into one, in which self-congruence and self-brand connection are highly interlinked, and together predict loyalty.

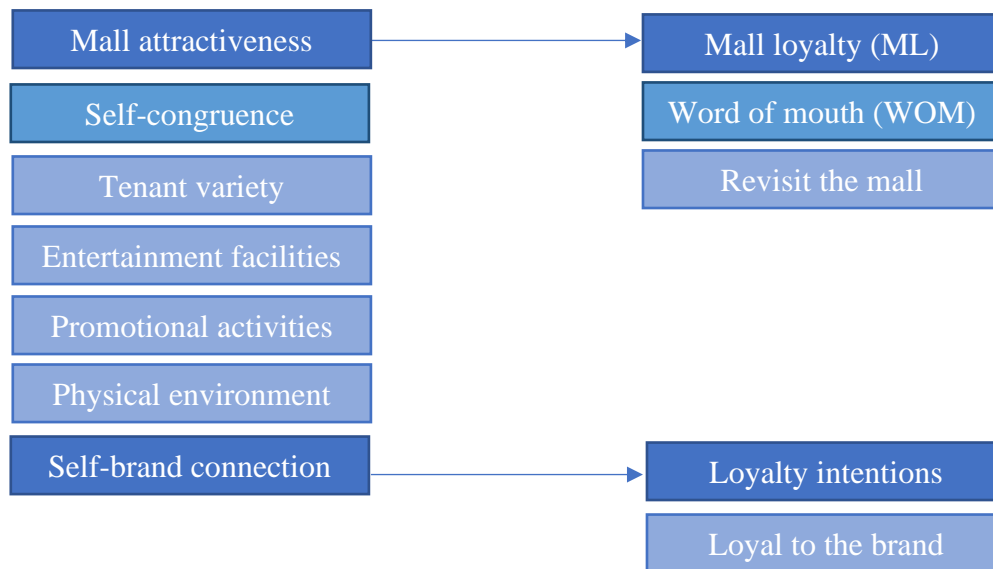


Figure 2.2 Conceptualized Framework Construct Two

2.10 New Ways of Sustainability Marketing

The marketing discipline has long been accused of stimulating unsustainable consumption (Abela, 2006; Rettie, Burchell & Riley, 2012; Sheth & Parvatiyar, 1995; Stearns, 2006). As mentioned before, green marketing and CSR initiatives have been proven to be ineffective in terms of driving behavioral change (Finger, 1994; McKenzie-Mohr, 2000; Mohammad Shafiee & Es-Haghi, 2017; Peattie & Peattie, 2009), as it relies on consumers being rational decision-makers (Hansen & Schrader, 1997; Lehner, Mont & Heiskanen, 2016). Isenhour (2010) argues that relying on consumer education to change the culture of consumption is overly optimistic. This is confirmed by Horne (2009) who states that the information-overload makes it simply impossible for consumers to process all information, and accordingly, participate in pro-environmental behaviors.

2.10.1 Nudging Shoppers

Tversky and Kahneman (1974) were the first to state that people have bounded rationality and make most of their decisions, especially everyday decisions, automatically. Lehner, Mont, and Heiskanen (2016) as well as White, Habib, and Hardisty (2019) do not see marketing as a way to inform the consumer consciously, as in the neoclassical perspective, but as an influential tool to steer the consumer unconsciously. In behavioral sciences, it is believed that the

environment influences our decisions. Thaler and Sunstein (2009) were the first to introduce the term “nudge”. Nudges are used to “alter people’s behavior in a predictable way without forbidding any options or significantly changing their economic incentives” (Thaler & Sunstein, 2009, p. 8). Nudges are used to enable behaviors and decisions that are beneficial to society, and thereby influence automatic and intuitive processes. Changing the physical environment, framing of information, introducing default options, communicating feelings and use of social norms are examples of nudging techniques (Lehner, Mont & Heiskanen, 2016).

Even though effective, nudging is considered as unfair and even immoral (Sunstein & Reisch, 2013). There is a growing resistance towards marketing manipulation attempts (Bertilsson, 2015). Consumers nowadays have shown to be capable of identifying nudges. Especially those who are highly educated are less prone to such techniques (Sunstein & Reisch, 2013). Companies and brands should, therefore, be careful in the usage of such influential tools (Lehner, Mont & Heiskanen, 2016).

2.10.2 New Habit Formation Through Changing the Environment

According to Verplanken and Wood (2006), almost half of our everyday consumption is strongly habitual. Habit change is crucial for sustainable behavior change (Withmarsh, O’Neill & Lorenzoni, 2011). Lehner, Mont and Heiskanen (2016) claim that changing the context in such a way that consumers are unable to carry out their normal behaviors, creates the perfect conditions to break habits. Sustainable actions are simply perceived to be effortful and hard to carry-out (McKenzie-Mohr, 2000; Uren et al., 2019). By making such behaviors easier to perform, such as making them more accessible and visible, the more likely they will be executed and such behaviors may turn into sustainable habits (Steg & Vlek, 2009; White, Habib & Hardisty, 2019). Product placement shows to be an effective environmental cue to make the behavior easier to perform (Lehner, Mont & Heiskanen, 2016). E.g. the placement of a water pitcher led to more water consumption (Verplanken & Wood, 2006). Consumers are simply known to take the path of least resistance. Offering more sustainable default options will therefore automatically lead to more pro-environmental behaviors (Lehner, Mont & Heiskanen, 2016; Theotokis & Manganari, 2015). Once associations between environmental cues and the adoption of behavior are made, the action is likely to be maintained over time (Verplanken & Wood, 2006).

Framing information is another way to break habits and create new ones. According to Argo (2019), signs, stating rules and directions, are usually used to communicate information to their shoppers. Such signs can facilitate identity-relevant actions (Argo, 2019) and may be used to promote desirable pro-environmental behaviors. This is supported by Lehner, Mont, and Heiskanen (2016) who argue that framing of information can be used to activate certain values, incorporated in ones’ self-identity. Besides messages that speak to ones’ values, loss-framed messages show to be effective (White, Macdonnell & Dahl, 2011). Message framing can thus be used to encourage sustainable choices (White, Habib & Hardisty, 2019). Nevertheless, these messages should be specified to certain customer segments. As carbon dioxide offsets may be of interest to Republicans, they will not stimulate Democrats (Hardisty, Johnson & Weber,

2010). Where using reusable shopping bags is perceived to be green and already widely accepted, this is not the case for, e.g. buying organic food. It may be accepted by pro-environmentalists, but not by the mainstream consumer. It is therefore up to marketers to make use of repositioning strategies and assure the transformation of certain behaviors from not normal to normal. Such strategies work best when introduced gradually (Rettie, Burchell & Riley, 2012). Rettie, Burchall, and Riley (2012) therefore, among others, are strong advocates of truly understanding your customers and targeting them accordingly to drive behavioral change. Different segments should be considered and not be targeted in a similar manner (Abrahamse et al., 2005; Balderjahn et al., 2018).

2.10.3 Identity Campaigning

According to the literature, self-identity seems to predict behavior (Gatersleben, Murtagh & Abrahamse, 2014; Shaw & Shiu, 2002; Sparks & Shepherd, 1992; Terry, Hogg & White, 1999; Whitmarsh & O'Neill, 2010). Dermody et al. (2015) call for identity campaigning as a potential route for encouraging sustainable consumption and pro-environmental behavior since pro-environmental self-identity is such a strong predictor. Consumers make use of brands to construct their identity (Belk, 1988) and hereby wish to connect with brands and companies (Bhattacharya & Sen, 2003; Escalas & Bettman, 2003). Additionally, consumers – especially those with salient relevant identities – show to be receptive towards messages that call on their identities and show a fit with a given company (Bhattacharya & Sen, 2003; Costa Pinto et al., 2016; Reed et al., 2012).

Marketers can thus make use of several identity messages to speak to their consumers. Identity-defining messages link identity expression to certain behaviors, such as pro-environmental behaviors, and show to be more effective than identity-referencing messages that simply call upon the target identity (Bhattacharjee, Berger & Menon, 2014). In case someone is a sports fan the message “DirectTV, all the sports you love, all in one place” (Bhattacharjee, Berger & Menon, 2014, p.295). Costa Pinto et al. (2016) take it a step further by looking at the underlying intentions for expressing one’s identity. There are those who participate in sustainable behavior for personal reasons, so-called self-transcendence intentions, or for social reasons and thus self-enhancement intentions. They suggest marketers to make use of personal identity priming to speak to pro-environmentalists, which is likely to lead to the performance of pro-environmental behaviors. Several studies however indicate that some react defensive and belittle those who display more sustainable actions (Dickinson, 2009; Feygina, Jost & Goldsmith, 2010) as they experience a threat to their self-identity (Gatersleben, Murtagh & Abrahamse, 2014; Murtagh et al., 2015). According to Miller and Ross (1975), consumers are simply likely to attribute positive outcomes to their own behavior and relate negative results to others. This is in line with consumer cynicism as discussed earlier (Bertilsson, 2015).

Those customers may consume for social reasons. It is recommended for marketers that environmental message for such a customer segment should be consistent with self-interest (Schuitema & Groot, 2015) to drive them to behave more sustainably (Costa Pinto et al., 2016). Marketers could attract self-enhancement-oriented consumers through social identity-priming, by using messages like “Caring for *our* planet never goes out of *style*.” (Costa Pinto et al., 2016

p. 749). Self-benefits are thus highlighted, which may help overcome the barriers of sustainable action (Gleim et al., 2013). Such marketing efforts, in which identities or personal characteristics are being targeted, may influence consumption behavior and indirectly work as a salient identity marker (Kettle, 2019).

Nevertheless, identity marketing can also backfire as consumers may experience that they can no longer freely express their identities as marketers use their identities to convey marketing messages (Bhattacharjee, Berger & Menon, 2014). Taking away the sense of agency may result in counterproductive effects of identity marketing (Dhar & Wertenbroch, 2012). This is in line with Bhattacharya and Sen (2003) who argue that identification with the company cannot be imposed upon consumers. A company may, therefore, be likely to change its own identity to better fit its overall customers. However, Bertillon (2017) argues that changes in the company identity can be seen as a threat to a consumer's sense of self, e.g. certain customer segments, who identified with the original company identity. Gradual changes may help in such a transformation (Rettie, Burchell & Riley, 2012). In other words, identity campaigning shows to be effective but should be carefully considered, especially when the identities of customers differ heavily. As mentioned earlier, it is of importance to understand which identities customers hold and what their underlying motivations are (Abrahamse et al., 2005; Balderjahn et al., 2018; Peattie & Peattie, 2009; Rettie, Burchell & Riley, 2012).

2.10.4 Social Influence

As mentioned before, self-identity consists of one's personal and social identity (Reed II & Forehand, 2019). Both identities can be primed as discussed in the previous section. To understand the underlying driver of self-enhancement, we take a closer look at the social identity. Literature shows that people want to be perceived by others in a positive manner to enhance self-esteem (Bhattacharya & Sen, 2003; Dutton & Dukerich, 1991; Granzin & Olsen, 1991). Social interaction allows for social comparison and the constant display of the self to gain social approval (Baumeister, Tice & Hutton, 1989; Escalas & Bettman, 2003) and is thus likely to happen at the shopping mall. Approval is most likely to occur when shoppers can identify with other shoppers at the mall (Ha & Im, 2012). In turn, the identification with a pro-environmental ingroup is a key determinant of sustainable choices and actions (Gupta & Ogden, 2009; Van der Werff, Steg & Keizer, 2014) and consumers are likely to adapt their behaviors to observable actions of their pro-environmental ingroup (2019).

Argo (2019), among others, argues that marketers could focus on activating a "good consumer identity" as it may result in environmentally sustainable behavior and gives the consumer status characteristics such as being kind, cooperative and trustworthy (Griskevicius, Tybur & Van den Bergh, 2010; Millet & Dewitte, 2007). It is however unclear whether the undesirable identity of being perceived poor and cheap when shopping second-hand can be overcome by the obtainment of such characteristics (Argo, 2019; De Nardo et al., 2017). When marketers overcome this motive ambiguity and highlight such characteristics repeatedly using social norms and affective techniques, consumers may be more likely to perform the desired behavior (White, Habib & Hardisty, 2019).

2.10.5 Social Marketing Techniques

Kotler and Zaltman (1971) were the first to introduce the concept of “social marketing”. Social marketing relies on tools from commercial marketing but aims for changing behavior to increase the well-being of individuals and society (McKenzie-Mohr, 2000; Peattie & Peattie, 2009). Social marketing, unlike green marketing, does not only address those already concerned about the environment but looks at the target market as a whole and considers its context (Peattie & Peattie, 2009; Zabkar & Hosta, 2013). Additionally, social marketing campaigns focus on two-way communication and relationship building (Peattie & Peattie, 2009), rather than the one-way marketing manipulation attempts consumers become resistant towards (Bertilsson, 2015). The concept has been applied to several environmental issues, such as promoting recycling (Zikmund & Stanton, 1971). A pro-environmentalist may identify as a “typical recycler” and therefore recycles (Mannetti, Pierro & Livi, 2004).

A consumer who does not identify as such can be nudged by marketers using social norms (White, Habib & Hardisty, 2019). Social norms seem to be a better predictor of behavioral change than the earlier discussed factor of self-interest, and work best with reference to the ingroup (Nolan, Schultz, Cialdini, Goldstein & Griskevicius, 2008; White & Simpson, 2013). These so-called injunctive norms can bring across what is considered normal or socially desirable (White, Habib & Hardisty, 2019). For social norms to influence behavior, they have to be salient to the individual (Cialdini & Goldstein, 2004). When it is socially desirable to recycle your trash, consumers are most likely to do so in a public context where others can observe them (Green & Peloza, 2014; Peloza, White & Shang, 2013) According to Isenhour (2010), conformity is deeply embedded in Swedish culture and social norms, therefore, seem to be an appropriate technique. Social norms can be implemented by making the behavior easy to perform, such as placing enough recycling bins in a mall (Ludwig, Gray & Rowell, 1998), and making it visible through prompts (Osbaldiston & Schott, 2012). Prompts to engage in sustainable behaviors work best when they are large and clear and placed close to where the behavior is performed (Werner, Rhodes & Partain, 1998). Furthermore, they are easy to implement and rather cheap, and therefore a good initial strategy (Schultz, Oskamp & Mainieri, 1995).

Besides injunctive norms, speaking to ones’ emotions has shown to be effective as it considers the non-reflexive rather than the rational consumer (White, Habib & Hardisty, 2019). When consumers derive hedonic pleasure from participating in pro-environmental behaviors – such as “warm glow” feelings and feelings of pride – it can motivate the maintenance of sustainable behaviors over time (Antonetti & Maklan, 2014; Giebelhausen et al., 2016). Marketers could thus use messages that compliment consumers on their previous behavior with the aim of making them reperform it. Such messages may raise feelings of guilt for those who do not yet perform pro-environmental behaviors. Using guilt in messages however shows to be effective as it reminds consumers to reconsider their current standards of behavior (Steenhaut & Van Kenhove, 2006) and is mainly effective when used in a subtle way (Trudel, Argo & Meng, 2016). A subtle approach may speak to the humble Swede (Isenhour, 2010) who does not want

to stand out too much from the middle (Bertilsson, 2015) and is likely to conform to what is socially desirable.

Social norms however should be used carefully (Kronrod, Grinstein & Wathieu, 2012). When a certain sustainable behavior is not yet perceived to be normal nor socially desirable, the usage of social norms can unintentionally lead to a decrease in the execution of behaviors (Cialdini, 2003; Rettie, Burchell & Riley, 2012). Marketers should apply the same carefulness to the use of emotions. Fear appeals or too much focus on guilt may leave consumers with the feeling of being unable to live up to certain expectations, which is likely to result in denial of sustainable behaviors (O'Neill & Nicholson-Cole, 2009).

3 Theoretical Framework and Hypotheses

In this section, we elaborate on the conceptual framework that is operationalized to answer the research questions. After a summary of the reviewed literature and an introduction to the constructs used, hypotheses are stated, and the assumed relationships are visualized in conceptual and statistical models inspired by Hayes (2013).

3.1 Adapted Conceptual Framework from Literature

In chapter two, we have shown two models that summarize the literature ([construct one](#), [construct two](#)). These models serve as the basis for our study to answer the research questions:

RQ1: To which extent does a consumers’ self-identity and what others think about his/her consumption choices influence the intention to perform pro-environmental behaviors?

RQ2: To which extent does a shopping mall that adopts pro-environmental behaviors become more attractive to its shoppers and encourages them to advocate it?

As visualized in figure 3.1, we merged the two models from the literature and adjusted them to make them suitable for our study. Here, we briefly explain what adjustments have been made to the original models and how the two constructs relate. In the next paragraphs, we address the research questions and the corresponding hypotheses separately, in which a more detailed explanation of all arrows is given.

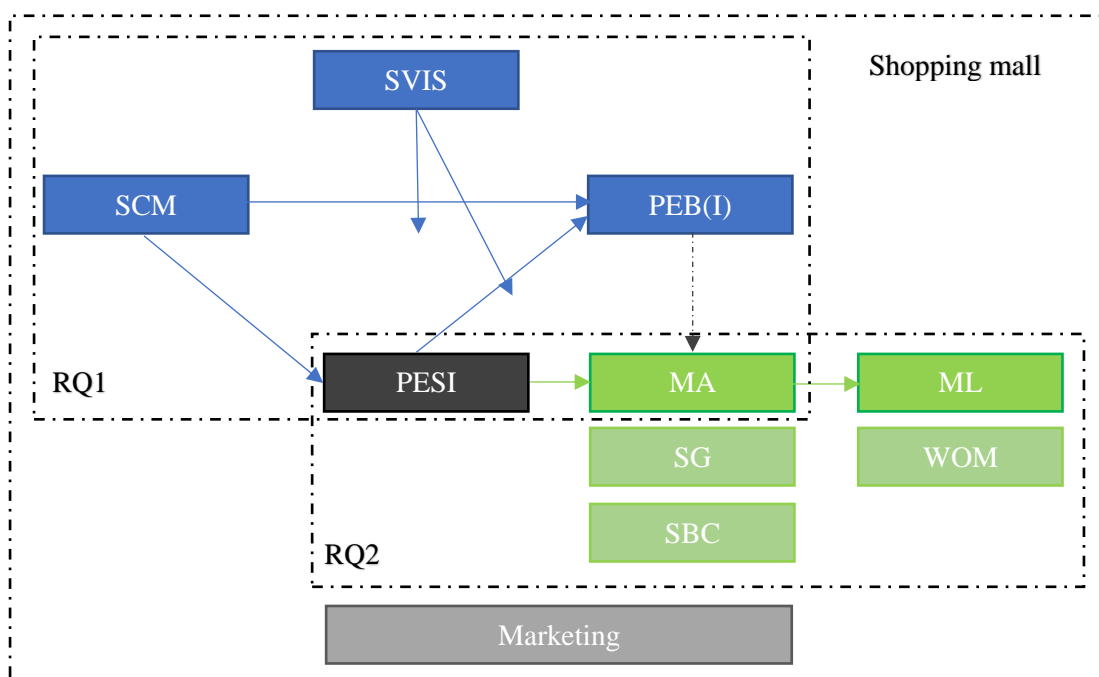


Figure 3.1 Conceptual Framework Study

One change we made is adding an arrow from social visibility of behaviors (SVIS) on the relationship between social consumption motivation (SCM) and pro-environmental behavioral intentions (PEB). We are hereby the first to assess this relationship. Additionally, we decided to take the construct to the shopping mall context. We reformulated the meaning of mall attractiveness. In our study, mall attractiveness consists of self-congruence (SG) and self-brand connection (SBC). The literature shows that self-congruence (SG) is one of the parts of mall attractiveness (MA) and predicts mall loyalty (ML) (El Hedhli, Chebat & Sirgy, 2013; Ha & Im, 2012). Self-brand connection (SBC) also predicts loyalty intentions, but this has not studied in the mall environment before (Escalas & Bettman, 2003). We limited our definition of mall loyalty to word-of-mouth (WOM) (Ha & Im, 2012). Moreover, we introduce the influence of pro-environmental self-identity (PESI) on mall attractiveness (MA), which results in an arrow between the two. The arrow between pro-environmental behaviors (PEB) indicates that when a shopping mall adopts pro-environmental behaviors, the mall becomes more attractive to those who identify as pro-environmentalists (PESI). Finally, marketing is part of the model. This is outside the scope of our study design, as the outcomes of the research questions serve as a preliminary basis for marketing implications for shopping mall management. We discuss the marketing implications throughout chapter [6](#) and in the practical implications in section [7.3](#).

3.2 RQ1: Conceptual Framework and Hypotheses

We consume, to (re)construct our self-identity and communicate it to others (Belk, 1988; Firat & Venkatesh, 1995; Soron, 2010). In turn, the extent to which one considers the opinion of others important in this is captured by the construct of social consumption motivation (SCM) (Dermody et al., 2015, 2018; Fitzmaurice & Comegys, 2006; Gatersleben, Murtagh & Abrahamse, 2014). Social consumption motivation has been shown to have a direct effect on pro-environmental behavior but has been shown to be partly or fully mediated by pro-environmental self-identity (Dermody et al., 2018, 2018; Gatersleben, Murtagh & Abrahamse, 2014). Furthermore, Whitmarsh et. al (2010) assumed that pro-environmental behavior is consumed conspicuously to enhance social status. This is in line with the findings that pro-environmental behavior works as status signifier (Brick, Sherman & Kim, 2017; De Nardo et al., 2017; Delgado, Harriger & Khanna, 2015; Griskevicius, Tybur & Van den Bergh, 2010; Luomala et al., 2020; Sexton & Sexton, 2014; Uren et al., 2019; Zabkar & Hosta, 2013) when visible in the social context (Brick, Sherman & Kim, 2017; Uren et al., 2019). Social visibility showed to moderate the relationship between an individual's pro-environmental self-identity and pro-environmental behavior (Brick, Sherman & Kim, 2017). This explains that consumers conspicuously communicate their level of PESI to others. We believe that the direct effect of social consumption motivation on pro-environmental behavior is moderated by social visibility as well in the way that individuals that care to a greater extent about what others think about their consumption motivation rather consider visible behaviors. Furthermore, we wish to capture the social context of consumption and thus focus on an insufficiently researched environment, namely shopping malls, as they provide a public space where consumption can be observed by others (Francis et al., 2012; Tunca & Anselmsson, 2019). The fact that malls are perceived to promote to promote consumerism (Day, 1999 cited in Nasution & Zahrah,

2012; Tunca & Anselmsson, 2019), and are centrally managed management, they depict an interesting context. When looking at shopping malls, it became apparent that few shopping malls offer the chance to perform pro-environmental behaviors, which is why we were forced to investigate an imaginary future shopping mall that offers a selection of pro-environmental behaviors. The selection of behaviors are further explained in [4.3.4](#) Consequently, we investigate the impact on pro-environmental behavioral intentions.

The above is summarized in the following hypothesis, conceptualized in figure 3.2.

H1: SCM has a direct effect on PEBI, moderated by SVIS (H1b) and an indirect effect on PEBI, mediated via PESI (H1c), which in turn has a direct effect on PEBI, moderated by SVIS (H1a).

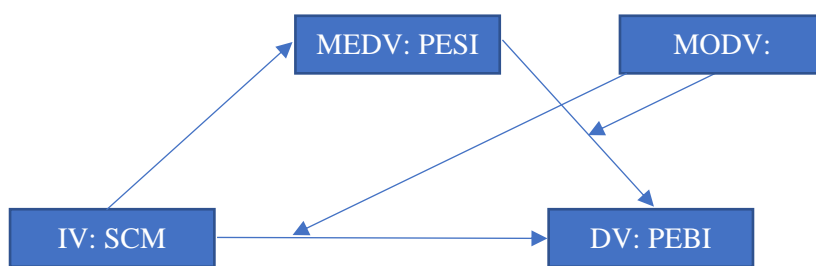


Figure 3.2 Conceptual Diagram Hypothesis 1 (model 15 PROCESS macro syntax)

We break down this hypothesis in three graspable hypotheses as visualized in the statistical diagram in figure 3.3:

H1a: PESI has a direct effect on PEBI, moderated by SVIS.

H1b: SCM has a direct effect on PEBI, moderated by SVIS

H1c: SCM has an indirect effect on PEBI, mediated by PESI

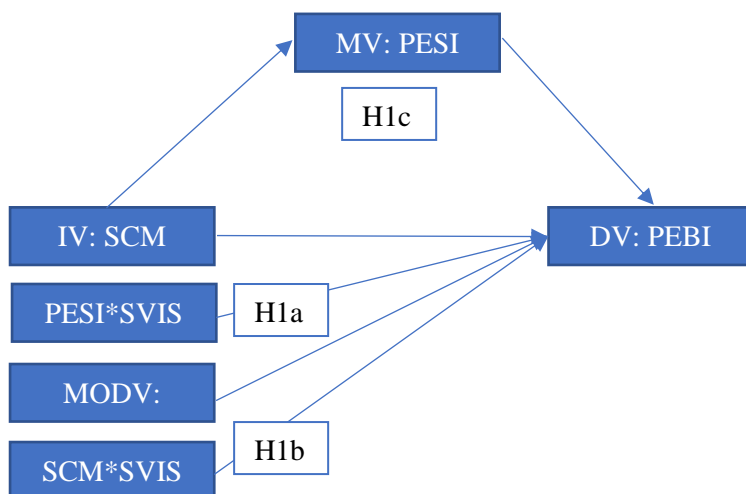


Figure 3.3 Statistical Diagram Hypothesis 1 (model 15 PROCESS macro syntax)

3.3 RQ2: Conceptual Framework and Hypotheses

The next step of our research investigates the impact of the adoption of pro-environmental behaviors on shopping mall's attractiveness and thus shopper's loyalty intention. Literature has shown that such attractiveness and consequently loyalty intentions can be predicted by the congruence between ones' self and the shoppers at a mall (Chebat, Sirgy & St-James, 2006; El Hedhli, Chebat & Sirgy, 2013; Ha & Im, 2012). In a similar manner can a brand, that helps an individual to fulfill her or his identity goal, lead to a connection between the self and the brand. Such a connection leads, in turn, to higher loyalty with the brand as well. We, in line with Merrilees, Miller & Shao (2016) believe that a shopping mall can work as a brand. Because contemporary malls are not considered to be a place that stimulates pro-environmental behavior, but consumerism (Day, 1999 cited in Nasution & Zahrah, 2012; Tunca & Anselmsson, 2019), we assume that individuals that label themselves as pro-environmentalists are not attracted to concurrent malls. In case, a future mall adapts pro-environmental behaviors we suppose an increase in attractiveness and loyalty intentions.

The above let us combine the concepts of self-congruence and self-brand connection to measure mall attractiveness as a unified predictor of loyalty intentions. We will refer to this as mall attractiveness (MA). As we want to test our assumptions, we made use of a story treatment, to test MA and ML for an imaginary mall in which PEB are performable.

Consequently, we will research our second research question through the following hypothesis as conceptualized in figure 3.4:

H2: Mall attractiveness (MA) serves as a mediating variable between PESI and loyalty intention (ML), both for the current and the future mall setting.

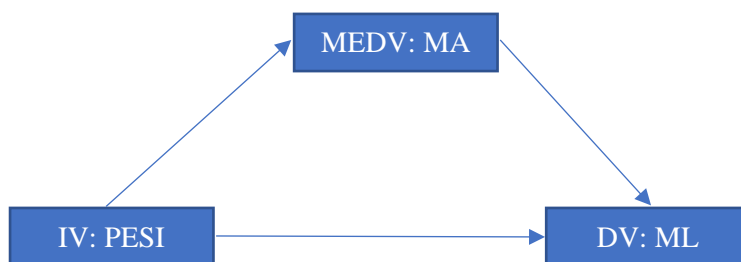


Figure 3.4 Conceptual Diagram Hypothesis 2 (model 4 PROCESS macro syntax)

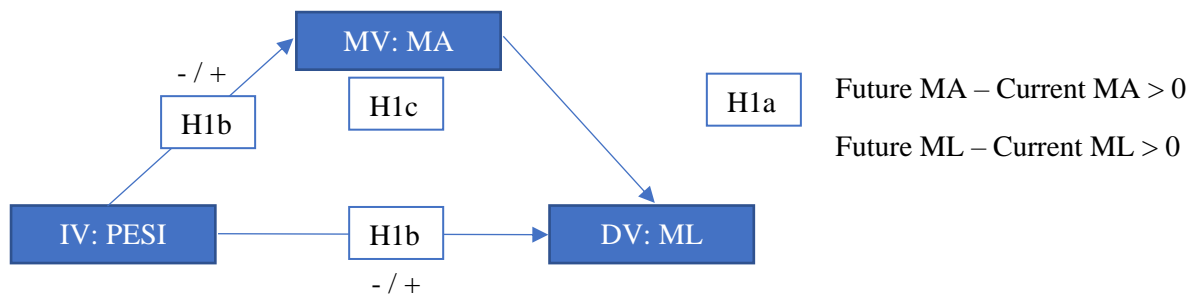
We again break down this hypothesis into separate hypotheses, as visualized in the statistical diagram (figure 3.5):

H2a: The Current Mall is less attractive (Current MA) and individuals are less loyal (Current ML) when compared to a future mall that has adopted pro-environmental behaviors (Future MA, Future ML).

H2b: There is a negative association between PESI, current mall attractiveness (Current MA) and current loyalty intention (Current ML).

H2c: There is a positive association between PESI, future mall attractiveness (Future MA) and future loyalty intention (Future LM).

H2d: Mall attractiveness (MA) has a direct effect on loyalty intention (ML), both for the current and future setting.



4 Methodology

In this chapter, the methodology of this thesis will be presented. First, we discuss ontology and epistemology as part of our research philosophy. Secondly, we describe our research strategy and design. This is followed by the sampling process, empirical data collection method, and data analysis approach. Lastly, we discuss the reliability and validity of our study.

4.1 Research Philosophy

There is no definitive answer to the way business and management research should be done. We hereby discuss our view about the nature of the relationship between theory and research in this section (Bryman & Bell, 2015). We address the different ontological and epistemological assumptions so that we can apply the proper methods for answering our research questions. Understanding these assumptions can increase the quality of our research (Easterby-Smith, Thorpe, Jackson & Jaspersen, 2018).

4.1.1 Ontology

Ontology addresses the researchers' views about the nature of reality. It influences the assumptions a researcher makes and thus what methods and strategies will be applied (Bryman & Bell, 2015; Easterby-Smith et al., 2018). There are several ontological positions varying from realism to relativism. Take for instance the international debate about climate change in natural sciences. Realists argue that this phenomenon exists independently of any observations made about them, whereas relativists argue that it depends on the perspective from which we look at them. It can be stated that these different types of researchers have not agreed on a definitive answer to the climate-change debate. Similar debates happen in social sciences, where the focus lies on the behavior of people (Bryman & Bell, 2015). Our research focuses on behavioral change towards more pro-environmental behaviors in which we touch upon theories that have been researched from all three typical social science ontologies: internal realism, relativism, and nominalism (Easterby-Smith et al., 2018). The question that remains is: are social phenomena beyond our influence or are they a product of social interaction (Bryman & Bell, 2015)?

As researchers for this study, we are somewhat familiar with the relativist and nominalist approach which embraces the influence of context and that reality is dependent (Easterby-Smith et al., 2018). Our academic background allowed us to get insights into Consumer Culture Theory and sociology, which caught our interest (Arnould & Thompson, 2018). We gained knowledge about theories such as identity construction and conspicuous consumption by understanding consumers from different perspectives. Researchers in this literature stream argue that there are many 'truths' and facts are dependent on the observer (Collins, 1983).

Some even argue that there is no truth, as everything is constructed by human (Arnould & Thompson, 2018; Cunliffe, 2001). When researching our thesis topic to a further extent, we came across several articles that acknowledge these ontological views but tried to prove the theories by adopting the internal realist view (e.g. Brick, Sherman & Kim, 2017; Griskevicius, Tybur & Van den Bergh, 2010). A view that acknowledges that truth exists – e.g. once scientific laws are discovered they are absolute –, but realizes that facts cannot be accessed directly (Easterby-Smith et al., 2018).

We perceive that this latter approach is not only an addition to our personal academic development but also one that is of high relevance for practical implications. Since our original aim was to work together with a retail space provider, we figured they were more interested in the numerical outcomes of this study as they allow for easier practical implementations such as segmentation of consumers. Nevertheless, there will be a clear theoretical contribution by adopting this internal realist approach, as we combine several previous studies of this kind into one thesis. We thereby acknowledge that one truth exists regarding the impact of pro-environmental self-identity and social consumption behavior on pro-environmental behavior and mall attractiveness. However, as Easterby-Smith et al. (2018) also argue, internal realists have difficulties operationalizing and measuring social concepts. We hereby already want to acknowledge that it is not possible to have an accurate measure of this “true” phenomenon in an absolute sense. This nevertheless does not change the fact that relevant measures of each concept in this study will enable us to come to a conclusion of reality. A reality about the relationship between the concepts measured in this thesis.

4.1.2 Epistemology

Epistemology is the theory of knowledge. It addresses questions like “how do we know what we know?” and “how is knowledge acquired?” (Easterby-Smith et al., 2018, p.69). It concerns the researchers’ view on what can be seen as acceptable knowledge in a specific discipline (Bryman & Bell, 2015; Saunders, Lewis & Thornhill, 2009). Since the early 1970s, there has been a trend from a positivistic approach – applying objective methods – towards constructionism. An approach that believes that reality is not objective, but socially constructed and therefore allows for interpretive methods (Burns & Burns, 2008; Habermans, 1970 cited in Easterby-Smith et al., 2018). It is the period in which the literature stream Consumer Culture Theory gained a lot of attention (Arnould & Thompson, 2018).

As we adopt an ontological view of internal realism, we embrace the epistemological assumption that knowledge is of significance solely when based on observations of external reality. Burns and Burns (2008) argue that many everyday observations and opinions are twisted through subjectivism and prejudice. Given this, we adopt an independent stance and presume measuring the social world in an objective manner to be more effective (Easterby-Smith et al., 2018). It is however important to keep in mind that positivist studies are less valid in behavioral science than in natural sciences, since humans are capable of reflecting on their behavior (Burns & Burns, 2008).

To apply methods in the right manner, we consider several principles. The main principle states that the observer must be independent of what is being observed (Bryman & Bell, 2015; Burns & Burns, 2008; Easterby-Smith et al., 2018). Another philosophical assumption of positivism is that research needs to be conducted in a way that is value-free (Bryman & Bell, 2015). In other words, how to study the concepts should be determined by objective criteria which we have taken from literature. The purpose of theory is to result in hypotheses that can be tested, as stated in chapter 3. Additionally, Easterby-Smith et al. (2018) argue that those concepts need to be operationalized and then reduced to simple elements so that they can be measured quantitatively. The way we operationalized our measurements is discussed in section 3.3. As quantitative research ultimately aims for formulating laws to understand reality causally and factually, the generalization of results is of importance (Burns & Burns, 2008). The sampling process is explained in section 4.4 and external validity is discussed in paragraph 4.7.3.

4.2 Research Approach

In this section, the research approach is presented. For our study we make use of a deductive research approach resulting in the use of the quantitative method: online surveys. Our study is cross-sectional and shows to be both context as well as context independent.

4.2.1 Deductive Research

Burns and Burns (2008) argue that both deductive, as well as inductive approaches, are needed for effective decision making in the business world. The concepts that we are studying are already widely covered in qualitative studies. We, therefore, do not aim for generating new theories through an inductive approach but embrace a deductive research approach as our theoretical framework and hypotheses already suggest. Burns and Burns (2008) seem to support our decision, by stating that a deductive approach and thus a quantitative study should be applied in later phases of research. The researcher should be aware of what will be tested, and all of the aspects of the study need to be clearly designed before data is collected (Burns & Burns, 2008). According to Bryman and Bell (2015), a deductive approach implies that a set of theoretical ideas drive data collection and analysis. We developed several hypotheses to investigate the relationship between pro-environmental identity (PESI) and social consumption motivation (SCM) on pro-environmental behaviors (PEB), as well as the relationship between PESI and mall attractiveness (MA) on mall loyalty (ML). Since we are studying and testing already existing theories, we hereby quantitatively measure our concepts. A quantitative method allows for more accurate and efficient estimations of measurements and relationships between the constructs studied. However, it may miss some contextual detail (Burns & Burns, 2008). Certain concepts have more than one measurement, which will be explained in more detail in section 4.3. The way we analyze our data is further explained in section 4.6. The eventual goal is to deduct conclusions from the stated hypotheses and to aim for generalization of our results to a certain extent.

4.2.2 Survey Method

According to Saunders, Lewis, and Thornhill (2009) and Bryman and Bell (2015), a survey strategy is most common in a deductive research approach. It is also a frequently used strategy in business and market research (Saunders, Lewis & Thornhill, 2009). Survey research assumes that there are certain patterns in human behavior.

We initially wanted to do surveys in the mall environment. However, due to the outbreak of COVID-19 during the thesis process, our partner INGKA Centres canceled the collaboration. We contacted 28 other retail space providers in the whole of Sweden, but unfortunately, our attempts were unsuccessful. We were forced to change from mall intercept to web-based surveys. The disadvantages of this change of research method and biases are described in the limitations section (7.4).

An online survey however also has several advantages over mall intercept surveys. It is less costly and time-consuming than face-to-face interviews, especially when a large sample is desired. Besides that, the internet has the potential to reach typical groups that are normally underrepresented (Shaughnessy, Zechmeister & Zechmeister, 2012). The respondent can answer in its own time and at its own pace. As no direct contact takes place, respondents will not experience pressure or embarrassment, and the mood or appearance of the interviewer does not influence the results of the survey (Burns & Burns, 2008; Shaughnessy, Zechmeister & Zechmeister, 2012). Easterby-Smith et al. (2018) describe this effect as the Hawthorne effect: human behavior can be affected by the presence of an interviewer, and often leads to socially desired answers. In our case, that could mean that respondents would state that they care more about the environment than they actually do (PESI) and care less about what others think of them buying certain brands than they, in fact, do (SCM). This effect is also recognized by Shaughnessy, Zechmeister, and Zechmeister (2012). Another advantage is that the anonymity with an online survey is much easier to guarantee. Respondents may also feel that confidentiality is higher with online surveys compared to those conducted face-to-face. The higher the feeling of confidentiality the more truthful the responses (Burns & Burns, 2008). Regardless of these advantages, we must acknowledge that due to the imaginative nature of many of the questions, respondents might experience difficulty when filling out the survey.

4.2.3 Cross-Sectional Analysis

A cross-sectional design is very common in a positivist approach, due to its economic nature. It is especially suitable when the goal of the study is of descriptive and predictive nature (Burns & Burns, 2008). A cross-sectional design examines respondents at a particular time and allows for the comparison of differences (Easterby-Smith et al., 2018). In our study, we examine shoppers at a particular moment and make comparisons within our research sample. Our study is descriptive in terms of shopping mall and pro-environmental behavior, and it focuses on the predictive effect of pro-environmental self-identity, social consumption motivation, social visibility, and mall attractiveness. A cross-sectional analysis, therefore, seems to be very suitable. Preferably, we would have conducted a longitudinal design to assess why observed patterns are there (Easterby-Smith et al., 2018). This was not possible, due to time constraints.

4.2.4 Context (In)dependent

To generalize results and thus assure external validity, most scholars argue that the objective of ontological internal realist and epistemological positivist views is to produce universal theories (Easterby-Smith et al., 2018). Theories that are derived from one context and can be applied to another. Some researchers however argue, that in the light of particular organizational or social settings, the outcomes are context-dependent and results may not be generalizable across cultures (Cook & Brown, 1999). In the latter case, for research to then have theoretical value, it should focus on these local practices.

In our study, we contribute both to universal theory as well as to local knowledge. We contribute to the universal theory by assessing the predicting effect of several variables. Additionally, our literature review showcases that there are different results across different cultures. We assume that the results of our study in Sweden will be very different from other cultures. The results may even differ when the study is performed in another environment than a shopping mall. We hereby also contribute to local knowledge with relevant managerial implications. Over the last decade, it is increasingly accepted that local theories are the new way of explaining behavior across borders (Taylor, 1999; Hobday & Rush, 2007 cited in Easterby-Smith et al., 2018).

4.3 Research Design

The choice for an online self-completion questionnaire and the context in which we have placed our study influence the survey design. The next paragraphs will describe the questionnaire setup by elaborating on the measurements taken from the literature.

4.3.1 Survey Tool

This study consists of one main study that was set up with SoSciSurvey. The decision to work with SoSciSurvey was easy to make since we have previous experience with the tool and it allows for several technical options such as randomizing questions, filter questions, embedding multimedia, and easy data transmission to SPSS. The survey tool is user-friendly, as it allows for device optimization, is easy to complete, and can be made appealing to the eye. According to Burns and Burns (2008), the visual appearance of the questionnaire influences the response rate. We, therefore, aimed for a short introduction, to the point questions and white space so that respondents would not mark the answers in the wrong place. We presented questions that were related together and separated questions by starting them on a new page. Moreover, this survey tool allowed for mandatory questions. When participants tried to go to the next question, they got reminded that they had to fill out all the answers first. This assures no missing values in our eventual data set.

4.3.2 Ethical Considerations

Easterby-Smith et al. (2018) highlight the importance of research ethics, especially when it comes to the protection of research participants. They argue that it is first of all important to inform respondents about the content of the study (Bryman & Bell, 2015; Easterby-Smith et al., 2018). We, therefore, began the questionnaire with a short introduction, covering our names, the purpose, length of the study, and our contact information. By this, we made sure participants had enough information to be able to make an informed decision whether they want to participate or not (Bryman & Bell, 2015). We included the following sentence to ensure the principle informed consent: “By clicking ‘next’, you agree with participating in this study”. No one was obliged to join and could exit the survey at any moment. Another important principle encompasses confidentiality (Easterby-Smith et al., 2018). We ensured respondents in our introduction that there is no data gathered that allows for tracing back answers to a specific individual. As section [4.3.10](#) shows, we only included demographics questions of a wide character. The digital distribution of our survey assures the anonymity of our study even further. At the end of the questionnaire, respondents have the option to fill out their contact details. It is clearly stated that this is optional. We hereby believe no ethical aspects were violated in this study. [Appendix A](#) shows how the information was presented.

4.3.3 Questionnaire Setup

The first question in the survey assessed which language respondents preferred: English or Swedish. Depending on the answer, the participants were then forwarded to the appropriate questionnaire version. Questions regarding the primary nationality and if our respondents had a Swedish personal number followed. After investigating the constructs of pro-environmental self-identity (PESI) and social consumption motivation (SCM), the frequency with which respondents have performed ten specific pro-environmental behaviors (PEB) in the past was investigated. From this point on, questions were constantly investigated in the shopping mall context. To increase respondents’ imagination, two pictures of a typical mall and one of a futuristic, green-looking mall were included. Furthermore, several questions regarding shoppers’ most frequently visited shopping mall were asked. The first question of these context-dependent questions, asking which shopping mall she or he has most frequently been visiting, fulfilled two goals. On the one hand, respondents could presumably picture this mall better when writing its name down. On the other hand, the question functioned as a filter question in a way that respondents who stated that they “never visit shopping malls” were redirected to a survey page where the reasons for not visiting were assessed. For those respondents, the questionnaire ended here. For everyone else, the perceived attractiveness of their most frequently visited mall and the social visibility of different pro-environmental behaviors (PEB) was researched next. Participants were then asked to imagine that the mall they most frequently visit adopted the PEBs as highlighted throughout the survey. Their intention to perform these behaviors in this imaginary future mall and the attractiveness of the mall were subsequently illuminated. The questionnaire closed off with demographic information, the opportunity to provide contact details, and an open text field for potential comments. A final page, thanking participants for their help depicted the end of our survey.

4.3.4 Component 1: Pro-Environmental Self-Identity

The variable pro-environmental self-identity (PESI) has been studied in previous research (Dermody et al., 2015, 2018; Gatersleben, Murtagh & Abrahamse, 2014; Shaw & Shiu, 2002a; Sparks & Shepherd, 1992; Uren et al., 2019; Whitmarsh & O'Neill, 2010). Sparks & Shepherd (1992) were the first to operationalize the identification with green consumerism. Whitmarsh & O'Neill (2010) modified the statements by Sparks & Shepherd and slightly modified them into PESI statements. Dermody (2015) adapted four of these and added a statement from Roberts (1996): "Each consumer's behavior can have a positive effect on society by purchasing products sold by socially responsible companies". This statement, however, is intended to measure Perceived Consumer Effectiveness (PCE). The PCE statement was kept, however, due to insufficient factor loadings, the two following statements: "I would be embarrassed to be seen as having an environmentally-friendly lifestyle" and "I would not want my family or friends to think of me as someone who is concerned about environmental issues" were dropped. In a follow up study of Dermody et al. (2018), the same measures were taken and the two insufficient statements were excluded again due to their insufficient factor loadings. An overview of all statements used by the above authors can be found in [Appendix B](#).

The most recent article that operationalized PESI did not give insights into the items operationalized (Uren et al., 2019). One statement they mention in their article is as follow: "I think of myself as someone who is very concerned with environmental issues" which was also covered by all four articles in [Appendix B](#). We, therefore, assume that Uren et al. (2019) used very similar statements to measure PESI. Besides measuring PESI, public identity was measured as well, originating from social identity theory. An example of a statement they used to measure this type of identity is: "It is important to me that others see me as a person who acts environmentally-friendly" (Uren et al., 2019). Brick, Sherman et al. (2017) measure environmentalist identity in a similar manner. Unlike previous studies, Uren et al. (2019) adopted a seven-point Likert scale and achieved great internal reliabilities. As the unique part of variance explained by the two different identity measures of was only rather small (<5%) we aim to incorporate both literature streams in our self-identity measure. This approach is in line with the argumentation of Reed et al. (2012), that there should not be a differentiation between self- and social identity, as it is the same concepts, applied to a different domain.

We decided to follow Dermody et al. (2015, 2018) and adopted the statements of Whitmarsh & O'Neill (2010). Even though two of the four items had shown insufficient factor loadings, we include all of the statements. One reason for that is internal validity. We prefer reducing the number of items afterward over not including them in the first place. We slightly modified the measure "I would not want my family or friends to think of me as someone concerned about environmental issues" to a positive statement ("I want my family or friends..."). We decided to include the statement by Roberts (1996) that Dermody et al. (2015) adapted in their study as well, to not only cover environmental sustainability but also social sustainability. As Uren et al. (2019), we capture responses on a seven-point scale (strongly disagree, disagree, somewhat disagree, neither agree nor disagree, somewhat agree, agree, strongly agree). We do so to investigate the respondent's opinion in more detail than it would be possible on a five-point

scale. Other constructs of our research have been measured on a seven-point Likert scale as well and thus consistency was another reason that choice (Marañón, 2020a).

4.3.5 Component 2: Social Consumption Motivation

The way the variable social consumption motivation has been measured is more consistent in the literature (Dermody et al., 2015, 2018; Fitzmaurice & Comegys, 2006). To our knowledge, it has always been investigated through four different items based on research by Moschis (1981). In the previously mentioned studies, respondents were asked to rate the following statements on a five-point scale: “Before purchasing a product, it is important to know...” (1) “...what others think of different brands or products.”, (2) “...what kinds of people buy certain brands or products.”, (3) “...what others think of people who buy certain brands or products.” and (4) “...what brands or products to buy to make a good impression on others.”. These items have consistently shown high internal reliabilities (Dermody et al., 2018, 2018; Fitzmaurice & Comegys, 2006). We adopted these four measures and chose a seven-point Likert scale.

4.3.6 Component 3: Social Visibility

To measure social visibility, Uren et al. (2019) conducted a qualitative study on how visible certain behaviors are. Their initial 33 behaviors got reduced to 16, which cover eco-efficient and curtailment behaviors. Curtailment behavior was not necessarily less visible than efficiency behavior. Visibility moderated the effect of cost and effort on social status. Brick, Sherman & Kim (2017) introduced the social visibility measure as follows: “These behaviors can reduce a persons’ greenhouse gas emissions. Some of these actions can be easily observed by other people. Some actions are more private. Please rate the following behaviors on how socially visible they are: that is, how much they can be observed by other people.” Participants rated 21 behaviors on a seven-point semantic differential scale ranging from “not at all visible” to “extremely visible”. Visibility showed a moderating effect on the relationship between pro environmentalist identity on pro-environmental behavior. They found that the more visible behaviors are, the more often they were performed (Brick, Sherman & Kim, 2017).

We operationalized this construct by using the same scaling and wording as Brick, Sherman, and Kim (2017) to measure it. The behaviors we investigated regarding their social visibility had to be executable in the shopping mall environment and thus required us to sort out and modify behaviors that had been assessed by other researchers (Brick, Sherman & Kim, 2017; Dermody et al., 2015, 2018; Uren et al., 2019; Whitmarsh & O’Neill, 2010). Which behaviors have been investigated is discussed below.

4.3.7 Component 4: Pro-Environmental Behavior

Several studies that we found through our literature review had measured pro-environmental behavior (Brick, Sherman & Kim, 2017; Dermody et al., 2015, 2018; Sparks & Shepherd, 1992; Uren et al., 2019; Whitmarsh & O’Neill, 2010). Whitmarsh and O’Neill (2010) reported

that their British participants showed to perform several green behaviors mainly occasionally. Sparks & Shepherd (1992) as well as Whitmarsh and O'Neill (2010) measured both, past behavior as well as behavioral intentions. They measured intention through statements as "I intend to eat organic vegetables during the next week". Both studies found that self-identity predicts behavioral intentions regardless of past behavior. Past behavior, however, had a significant effect on behavioral intentions on itself and predicted a unique part of the variance in behavioral intentions (Sparks & Shepherd, 1992; Whitmarsh & O'Neill, 2010).

The discussed studies investigated various behaviors differently, however, the way Whitmarsh and O'Neill (2010) measured PEB has been adopted by several other studies (Dermody et al., 2015, 2018). Whitmarsh & O'Neill (2010) measured pro-environmental behavior through the following statement: "Please indicate how often you take each action." A four-point Likert scale (never, occasionally, often, and always) was used to examine 24 different behaviors. These items showed great internal consistency. Some of their investigated behaviors were: "Turn off lights you're not using", "Recycle", "Turn off the tap while you brush your teeth" and "Walk, cycle or take public transport for short journeys". These behaviors are not performable in a shopping mall and thus irrelevant for us. However, behaviors like "Reus[ing] or repair items instead of throwing them away" or "Buy[ing] products with less packaging" are highly interesting for our context. In total, we deemed 5 out of 17 behaviors executable in a shopping mall. Dermody et al. (2015) used five behaviors that all happen to be performable in a mall. Brick, Sherman & Kim (2017) investigated 21 different behaviors of which ten are performable in a shopping mall and four behaviors in the study of Dermody et al. (2018) were relevant for us. Uren et al. researched 16 behaviors of which four are performable in a shopping environment. Three of these were categorized as highly visible. Only one of all these pro-environmental behaviors was related to clothing (Brick, Sherman & Kim, 2017). In an interview with Alma Jensen, Global Sustainability Specialist at Ingka Centres, it became however clear that they intend to focus more on sustainable consumption regarding clothing. This is currently offered through environmentally friendly clothing brands and might in the future be done through more circular behaviors like second-hand shopping and repair services (A. Jensen, personal communication, 4 March 2020; Stål & Jansson, 2017). Stål & Jansson (2017) researched several Swedish fashion firms and found that these are including more sustainable textiles options, allow consumers to repair their items, and put take-back systems in place, allowing for clothes than to be sold second-hand.

To avoid making our survey too extensive, but to still achieve relevant results, we decided to investigate ten eco-efficient and curtailment behaviors that cover a wide range of domains in a shopping mall. These behaviors are "Using reusable shopping bags when shopping", "Bringing your own cup to a café when ordering takeaway", "Buying vegetarian food", "Buying clothes from environmentally-friendly brands", "Educating yourself about environmentally-friendly behavior", "Eating organic, locally grown or food that is in season", "Getting shoes or clothes repaired so they last longer", "Donating or returning clothes so they might love a second life", "Buying second-hand clothes or items", "Buying products with less packaging". We deduced these behaviors from literature but modified them to fit our research. For instance, Brick, Sherman, and Kim (2017) separately investigated the frequency of respondents buying organic, locally grown, or seasonal food. We acknowledge that these are different behaviors, but for our

research, which does not aim to investigate one of these, in particular, a combination allows for reduced complexity while not impacting the quality of results. Another reason for a combination is the, presumably, equal social visibility. A more detailed overview of the different behaviors and how they were combined or modified can be found in [Appendix B](#).

These behaviors were assessed multiple times in the survey to measure different constructs. As Sparks & Shepherd (1992) and Whitmarsh and O'Neill (2010), we wished to research past behavior and the intent to perform it in the future. To investigate the frequency of past behavior, we adapted the approach of Whitmarsh and O'Neill (2010). Respondents were asked "How often do you..." followed by one of the ten selected behaviors. The answers were captured on a five-point Likert scale (1=Never, 2=Rarely 3=Sometimes 4=Often 5=Always). The intention to perform these behaviors was captured slightly differently by us. Respondents were asked to imagine a future context and were instructed as follows: "Imagine in the near future, you will be able to perform all the actions below in the shopping mall you most frequently visit. How likely would you perform these actions? Please rate the following actions." The formulation of the measured behaviors was accordingly modified to e.g. "I would use reusable shopping bags when shopping". The answers were recorded on a seven-point Likert scale where '1' is Extremely unlikely" and '7' Extremely likely.

4.3.8 Component 5: Mall Attractiveness

The fifth component encompasses mall attractiveness. It was measured through the concepts of self-brand connection and self-congruence. While the latter one captures the link between a consumers identity and a brands' – or in our context mall's – identity (Escalas, Gallo & Gaustad, 2019), self-congruence captures the alignment of one's self and other shoppers in the mall (Ha & Im, 2012). By researching these two constructs simultaneously we aim to capture the connection of our respondents to their current and future mall as well to its shoppers. An increased connection has shown to lead to greater loyalty to a mall or brand (Escalas & Bettman, 2003; Ha & Im, 2012). We thus measure loyalty intentions to capture if a strengthened mall attractiveness then also leads to higher loyalty intentions.

Ha & Im (2012) were the first to measure self-congruence in the shopping mall context. They adopted and modified the six-item scale from Sirgy et al. (1985). El Hedli, Chebat, and Sirgy (2013) also measured shopper self-identification by adopting three items from the self-congruity measure by Sirgy, Dhruv, and Mangleburg (2000). We adopt two statements that showed the highest factor loadings – one each from the studies of Ha and Im (2012) and El Hedhli, Chebat, and Sirgy (2013). These statements, namely "The typical shoppers to this mall are very much like me" and "I can identify with people who shop at this mall", are measured on a seven-point Likert scale. To measure the self-brand connection, we chose two measures from Escalas, Gallo, and Gaustad (2019) of and modified them as follows: "I can identify with the mall and its stores (brands, products, services)" and "The shopping mall and its stores (brands, products, services) help me to become the person who I want to be". As Escalas, Galls, and Gaustad (2019), we examine respondents' opinions on a seven-point Likert scale. The

scaling adjectives ranged from “Strongly disagree” to “Strongly agree”.

4.3.9 Component 6: Mall Loyalty

Loyalty intentions with a mall can be measured through word-of-mouth and the intention to revisit. As it is hard to measure the intention to revisit a future mall, we limited the measurement for loyalty intention to word-of-mouth items. We adopt two out of four items from Zeithaml, Berry, and Parasuraman (1996) which were also used by El Hedli, Chebat, and Sirgy (2013) as well as Ha and Im (2012). The items have shown great internal consistency. The statements “I will say positive things about the shopping mall.” and “I will encourage friends and relatives to visit this shopping mall.” are measured on a seven-point Likert scale. For the imaginary future shopping mall of respondents, the same items for self-congruence, self-brand connection, and mall loyalty are measured but modified into subjunctive statements.

4.3.10 Component 7: Socio-Demographics and Shopping Motivation

Lastly, to get better insights into respondents’ socio-demographics and shopping motivations, some more general questions were included in the questionnaire that serve as descriptive variables. One of those follows a filter question about the respondents’ most frequently visited mall. In case they stated to not visit shopping malls, we tried to illuminate the reasons with the multiple response question: “What is the reason that you don't visit shopping malls?”. We provided respondents with nine different pre-formulated answers as well as an open text option “Other”. Another question that leads to valuable insights examined which behaviors are performable in the respondent’s current mall. The ten pro-environmental behaviors discussed above were investigated through another multiple response question.

Additionally, we provided the options to choose “I don’t know.” and “I believe my shopping mall offers none of these.” A measure that was included because of its worth for the shopping malls that our respondents most frequently go to, is the value that they derive from visiting it. Ha & Im (2012) classified these into hedonic and utilitarian shopping values. We adopted two statements of each and measured them on a seven-point scale. To measure the utilitarian value we chose two questions with the highest factor loadings from Ha and Im (2012): “While shopping at this mall, I can find the items that I am looking for” and “I can accomplish just what I want to do on my shopping trip”. The hedonic shopping value was captured through the items of “I enjoy my shopping trip for its own sake, not just for the items I would buy.” and “Shopping at this mall is truly a joy, I experience a sense of adventure.”. These statements were slightly modified from the ones Ha and Im (2012) used. Besides the primary nationality, which was enquired at the very beginning of the survey, other socio-demographic measures like age, gender, disposable income, and occupation were investigated right before the survey ended. More information about these measures can be found in [Appendix A](#).

4.3.11 Controlling for Bias

The items of the dependent variable – pro-environmental behavior (PEB) and mall attractiveness (MA) – got measured repeatedly throughout the survey. One may argue that respondents could therefore no longer answer in an unbiased way since they recognize the questions. We however believe that it allows for critical thinking whether their behavior or overall evaluation of the mall's attractiveness changed, which would mean that it makes these measures more valid rather than less (Burns & Burns, 2008). Regardless, we work with a survey tool (SoSciSurvey) through which we can randomize the order of the items so that respondents would not be able to recall the foregoing answers to the questions. By constructing the questionnaire in the order described above, we attempt to control for possible biases (Easterby-Smith et al., 2018). The independent variables pro-environmental self-identity (PESI) and social consumption motivation (SCM) are consciously investigated first, without any interference of the shopping mall context. The bias that might occur through the repeated investigation of PEB and MA in our survey is thus controlled for by randomizing the items.

4.4 Sampling Process

In this section, the sampling strategy, sampling method, and sample size are presented. We also discuss sampling error and possible sampling biases that may occur.

4.4.1 Sampling Strategy

The target population in this study are inhabitants in Sweden of 18 years and older who visit shopping malls in urban areas. We included two questions that served as filter questions to make sure only suitable respondents are included in our sample. One of them was whether respondents have a Swedish personal number, so that we could filter out those who live in Sweden for less than a year. The second filter was whether respondents are going to a shopping mall or not. As mentioned in the section on ethical considerations (4.3.2), we did not include any questions that could lead back to the individual. We therefore did not include a question on postal code, as we found this is an intriguing question and could then assure anonymity. We use the shopping mall name instead to figure out the urban areas.

According to Easterby-Smith et al. (2018), common examples of sampling bias in business and management research are excluding groups of people, distribution method and language used. We tried to exclude as little groups as possible by sharing our survey with as many different types of people as possible, as explained in the empirical data collection section (4.5.3). Those without access to a computer or social media however had zero change of being included (Burns & Burns, 2008). To overcome the language bias, we made sure our survey was both available in English and Swedish. This also increased the likeliness of including the less educated or older generations. Sampling bias is further discussed in paragraph 7.4.1.

4.4.2 Non-Probability Sampling

The initial aim of this research was to distribute the survey through a probability approach, as positivistic research aims for generalizing results. As mentioned earlier, we faced constraints to do mall intercept surveys as our collaboration with INGKA Centres was canceled due to the worldwide pandemic. As the option of probability sampling is not open, we make use of the alternative approach: non-probability sampling. In this type of sampling, not everyone in the population has the same chance of being included in the sample (Burns & Burns, 2008). This makes that we cannot calculate the sampling error: the mean of the sample and the true mean cannot be computed. Therefore, the results of this study can statistically not be generalized to the population (Burns & Burns, 2008; Easterby-Smith et al., 2018). An even more serious sampling error is sampling bias. We however tried to control for this by making sure not too many units with one specific characteristic – such as young respondents, just females or students – are selected. The way we gathered our data, is further explained in paragraph [4.5.3](#). Burns and Burns (2008) and Hogg, Tanis, and Zimmerman (2015) state that non-probability sampling is a common approach in business research since time limitations and economic expenses make probability sampling often impossible. Even though non-probability sampling approaches are not generalizable, they are still valuable. Inclusion in our case was based on convenience and our judgment. Convenience sampling is valuable since it can most easily reach a high enough sample size and snowball sampling helps find respondents you would otherwise be unable to reach (Easterby-Smith et al., 2018). It is however important to bear in mind that non-probability sampling is most prone to the principle of bias. We have mentioned this several times before and further discussed is in the empirical data collection section ([4.5.3](#)) as well as in the eventual limitations chapter ([7.4.1](#)).

4.4.3 Sample Size

According to Bryman and Bell (2015), there is no definitive answer to how big your sample size should be. They also state that absolute size is more important than relative size, indicating that the sample size is not really depending on the total population size (Bryman & Bell, 2015).

According to Marañon (2020b), the sample size for studies that aim for problem-solving or test-marketing studies require a minimum size of $n=200$. Our study can be considered such a study as it researches the effect of implementing pro-environmental behaviors in shopping malls. These studies however typically have a range between 300-500 respondents (Marañon, 2020b). Brick, Sherman, and Kim (2017), a very relevant article for our research, shows sample sizes that align with the above (study 1: $n=375$, study 2: $n=332$, study 3: $n=437$). Considering the above and the fact that we are limited by time, money, and the availability of observations (Hogg, Tanis & Zimmerman, 2015), we aimed for a minimum sample size of $n=300$.

4.4.4 Convenience, Snowball and Judgmental Sampling

Since the time frame for this master thesis is limited, convenience sampling is most appropriate for our study (Bryman & Bell, 2015). We selected respondents based on their availability and

their willingness to respond (Burns & Burns, 2008; Easterby-Smith et al., 2018) by making use of our network and social media. We are aware that the availability of respondents very much depends on the time or day we reach out to them – the so-called timing effect (Burns & Burns, 2018) –, and that we are constrained by the permission we need to get from admins to access certain Facebook groups. Burns and Burns (2008) argue that this may result in unreliable data. There are however several advantages of convenience sampling which is why it is a commonly used method. It is quick, not complicated, and low in cost (Bryman & Bell, 2015; Burns & Burns, 2008; Easterby-Smith et al., 2018).

The sample derived through our network can also be considered snowball sampling (Burns & Burns, 2008; Easterby-Smith et al., 2018). As we are both international students, our Swedish network is not extensive. We, therefore, used our initial Swedish contacts to get in touch with other Swedish people. We made sure the initial contact met the criteria for inclusion and that we informed the contacted person about these requirements so that they could pass on the survey to the right people (Easterby-Smith et al., 2018). More specifically, we asked students to share it with older family members.

The sample derived from the Facebook groups can be considered a judgmental sample, as we identify the groups in which the survey would be shared (Burns & Burns, 2008). We are aware that this is not the desired way of gathering data, but since these extraordinary times did not allow us to be more consistent and reliable in our sampling, we had no other choice.

4.5 Data Collection

This section is dedicated to the data collection method which included a pre-test, the Swedish survey design, empirical data collection, and the eventual number of respondents. As mentioned before, the empirical data collection consisted of one main study which was conducted using the digital survey tool SoSciSurvey.

4.5.1 Pre-Test

We performed a pre-test in early April to test and optimize our questionnaire design. It is important to fix spelling and grammar errors as well as reformulating questions that are misunderstood by the test respondents (Reynolds, Diamantopoulos & Schlegelmilch, 1993). Pre-testing helps to remove ambiguity, trial instructions, and is an adequate test for examining the range of response options (Burns & Burns, 2008). Since we could no longer do the surveys in the mall, it was important to make sure all questions were understood correctly as we, as interviewers, would not be able to give instructions (Burns & Burns, 2008; Shaughnessy, Zechmeister & Zechmeister, 2012).

In total, ten respondents – who meet the requirements of our target population – pre-tested our survey through the “pre-test mode” of SoSciSurvey: four master students in business administration, two bachelor students in engineering, two professors in business administration (marketing, statistics), one employee in physics (Schrödinger) and one marketing manager at a shopping outlet (Stockholm Quality Outlet). By asking respondents from different

backgrounds, we made sure that the concepts were not only understood just by a certain group of people (e.g. business administration background).

The main feedback we received was that we had to clarify certain questions by giving a concise introduction, especially for the question about social visibility. Through the pre-test, it became apparent that the construct was perceived to be abstract and confusing. We changed the wording of the bipolar adjectives of the scale endpoints from “visible” to “observable” which made the construct better to understand. To improve the survey experience, the seven-point scale was transformed into a slider scale to make the construct more imaginable a triangular graphic was adopted. The test-respondents clearly stated that the survey requires focus, which may negatively affect the validity of our results. Additionally, we changed one negative statement (which was taken from literature) into positive, as we wanted to increase the understandability of the statements. We modified “I would not want my family or friends to think of me as someone who is concerned about environmental issues” to “I want my family or friends to think of me as someone who is concerned about environmental issues.” We double-checked the literature and saw that the factor loading for this negative statement was rather low, so changing it so that it would lead to less confusion, is somewhat justifiable. Besides that, we changed “Each consumer’s behavior can have a positive effect on society by purchasing products sold by socially responsible companies” into “Everyone can have a positive effect on society...”, as the first part of the statement was considered being confusing. We also included some “non”-options, such as “I don’t visit shopping malls” and “My shopping mall does not allow me to perform these behaviors”. Lastly, we changed “neutral” as our middle option for our 7-point Likert Scale into “undecided”, so that it became less favorable for a respondent to pick this option to achieve more significant results.

Besides these ten respondents, we asked five additional respondents to fill out the pre-test so that we could measure the time they spend on our survey. We found that they took between 7-20 minutes to complete it. This is quite long compared to other questionnaires, so we decided to include an incentive for people to fill it out. We agreed on giving away four vouchers of in total 1000 SEK (1x 400 SEK, 1x300 SEK 1x 200 SEK 1x 100 SEK) for the shopping mall of their preference. Respondents could participate by filling out their email address or phone number at the end of the survey. The four winners will get notified in June.

4.5.2 Survey Translation to Swedish

After the final changes to the English version were made, we started translating the questionnaire to Swedish. As our sampling strategy suggests, we did not want to exclude any groups. Especially not those living in Sweden but unable to understand English or prefer the Swedish version. We carefully considered this option, as poor translations can result in valueless data (Behling & Law, 2000). Behling and Law (2000) argue that survey translations to another language should achieve semantic, conceptual, and normative equivalence with the source language. Semantic equivalence refers to the words and sentence structure, that should express the same meaning in both languages. Conceptual equivalence encompasses that the same concepts are being measured although wording might be different. The translated text should also take into account the social norms of a specific culture, which is covered by

semantic equivalence (Behling & Law, 2000; Harkness, Pennell & Schoua-Glusberg, 2004). Harkness, Pennell, and Schoua-Glusberg (2004) argue that translators often pay too much attention to the words rather than the meaning of the question. To overcome this, we asked one Swedish student and a landlord in Sweden to translate our survey and write down the challenges they encountered. After having received both translations, we merged the translations with this Swedish student. We went through all the questions to ensure the meaning of the questions was correctly translated and did not leave room for ambiguity. We sometimes had to reformulate and restructure the questions. By doing so, we achieved both semantic and conceptual equivalence. Conceptual equivalence was no issue, as there were no questions that were sensitive or inappropriate. The first two steps of translation, namely translation and evaluation, were covered. The last stage of translation included the review process. The survey translations were pre-tested by one engineer, one professor, and four Swedish master students. The results were used to make final changes to the Swedish survey.

4.5.3 Empirical Data Collection

The sample was targeted through personal survey requests via social media and the survey was posted in several Facebook groups. We made use of our networks to reach out to Swedish inhabitants. We addressed our friends via WhatsApp, acquaintances via Facebook, professionals via LinkedIn, professors via email as well as management of shopping malls that showed to be interested in our study. The Facebook groups were chosen based on our judgment. We did not want to reach out to sustainability-focused groups as this would most likely influence our results. Instead, we looked at Facebook groups that are similar in the urban areas in Sweden, such as Malmö, Stockholm, and Gothenburg, but also Helsingborg and Lund. We asked the master students who pre-tested the Swedish survey for suggestions on appropriate Facebook groups. They suggested several “housing” as well as “buy and sell” groups, that were often owned by the same admins. We contacted them and they were more than happy to help us distribute the survey. The message we sent to the admins and the post we shared in the Facebook groups can be found in [Appendix C](#).

We grasped respondents’ attention by highlighting the incentive and stating that we could use their help in these pandemic times. By highlighting this incentive, we expected to reach those acting out of self-interest besides the already willing participants coming from our network. We consciously decided to not include what the study is about, so that respondents would not participate in the study simply because of them loving shopping malls or being advocates of sustainability. By doing so, we could ensure a broader scope of respondents (Easterby-Smith et al., 2018) and capture more reliable answers (Burns & Burns, 2008).

In an attempt to avoid sampling bias, we made sure we posted our survey in several Facebook groups so that we for example would not just approach female, students, or highly educated people. Examples of such groups are “Parents in Malmö”, “Expats in Gothenburg” and “Gymnasielärare I Svenska”. We found that admins in the southern area of Sweden were more likely to reply to our request and share the questionnaire, compared to Stockholm and Gothenburg. We already stated that our sampling method is prone to sampling bias. We hereby also want to acknowledge that distributing our survey through social media is very prone to

selection bias. Both under-coverage of certain groups and self-selection lead to biases and may result in unreliable data (Bethlehem, 2010; Shaughnessy, Zechmeister & Zechmeister, 2012). We acknowledge that choosing groups based on our own intuition is distorted by cognitive biases (Tversky & Kahneman, 1974) and although the choice for these groups seemed reasonable, they may not have been adequate. This is further discussed in limitations section of our study (7.4.1).

As it took some time to translate the questionnaire to Swedish, we decided to already distribute the English version. The English version was online from the 9th of April until the 23rd. The Swedish survey was available from the 16th of April until the 23rd. A total of 77 personal survey requests – varying from fellow-students to friends, professors, and professionals – were sent out. Several of them shared the survey link with their friends and family. We posted our survey in 26 Facebook groups (16 English, 10 Swedish) with 139,521 members in total. The exact number of survey requests is, due to our sampling method, unknown. The response rate for online surveys is nevertheless typically very low, usually below 15% (Burns & Burns, 2008). When dividing the number of completed surveys by the number of Facebook group members, we can state a response rate of 0.4%. This response rate is however rather inaccurate as respondents could be in several of those groups and we approached respondents ourselves, who in turn addressed others. The actual response rate is thus lower than the stated 0.4%. A downside of non-response, is that respondents differ on important characteristics from those who do not respond (Burns & Burns, 2008; Shaughnessy, Zechmeister & Zechmeister, 2012). Moreover, we can state that people we approached personally, were very likely to fill out our survey thanks to our personal connection. This resulted in many responses from students (n=134).

4.5.4 Number of Respondents

We checked our data collection at several moments throughout the data collection period to check whether the minimum sample size of n=300 was already reached. We eventually did so on the 23rd of April, reaching a sample of n=336. Of which 251 were filled out in the English language.

In total, 786 started our survey. 28% dropped out, resulting in 563 completed surveys. 508 participants have a Swedish personal number (n= 55) and 434 of them go to shopping malls. 74 respondents thus stated they are not going to shopping malls. Our pre-study showed that the test respondents took 7-20 minutes. We, therefore, took 7 minutes as an absolute minimum to complete the survey. We filtered out everyone who took less than 7 minutes, resulting in 350 respondents (n= 84). We assume that the incentive we offer could have been a reason for these respondents to complete the survey. We believe the data from those who answered in less than 7 minutes is not reliable.

Out of these 350 respondents, none were younger than 18 years and the majority comes from the main urban areas in Sweden. Table 4.1 shows that the sample matches the prerequisites of the target population.

Target population	Sample results
Visits shopping malls	Regularly visits a mall (85.43%), never visits one (14.57%)
Above 18 years old	18-24 (23.51%), 25-34 (38.10%), 35-44 (17.56%), 45-54 (11.91%), 55-64 (7.44%), 65+ (1.49%)
Urban areas	Malmö (27.38%), Stockholm (21.73%), Lund (18.75%), Gothenburg (12.80%), Helsingborg (11.61%), other (7.73%)

Table 4.1 Sampling Results

4.6 Data Analysis Methods

In this section, we discuss normality of our results, how we decided on the use of certain tests, and how we performed those. As our data was of ordinal level and not normally distributed, we decided for non-parametric tests to investigate correlations, group differences, and regressions.

4.6.1 Inspired by Literature

The data analysis is performed through SPSS. The reviewed literature provided some guidance for our data analysis. Besides qualitative approaches (Griskevicius, Tybur & Van den Bergh, 2010) (multiple) regression analysis is very commonly used in social studies like ours (Brick, Sherman & Kim, 2017; Elliott, 2013; Gatersleben, Murtagh & Abrahamse, 2014; Shaw & Shiu, 2002a; Sparks & Shepherd, 1992; Uren et al., 2019; Whitmarsh & O’Neill, 2010). Regression analyses are performed to investigate the predicting effect of independent variables on one or multiple dependent variables. Another approach is structural equation modeling (SEM), which has been operationalized by several relevant studies as well (Ha & Im, 2012; Moser, 2015). An analysis that moves beyond testing a certain model fit like in multiple regressions and SEM is the SPSS PROCESS macro syntax which has just recently gained more attention in this research realm (Dermody et al., 2015, 2018). We perform the analysis with a 95% confidence interval to keep Type 1 errors at a minimum (Burns & Burns, 2008).

4.6.2 Normality Testing

To use parametric tests, at least 15 observations per item are required per independent variable, normal distribution of all variables, no multicollinearity, and an acceptable level of homoscedasticity (Burns & Burns, 2008). We meet the first requirement. To assess whether normality can be assumed, we perform normality tests for all variables included in the theoretical framework. We first looked at the significance levels for the Shapiro-Wilk test for normality. However, as this test is very sensitive as it rejects the null hypothesis (non-normality) at very small sample sizes, we also look at the results of the Kolmogorov-Smirnov

test for normality. Both tests expressed non-normality for all variables ([Appendix F](#)) Furthermore, we tested normality for the utilitarian and hedonic shopping value and faced non-normality again. Past behavior is the only variable that seems to be normally distributed (Kolmogorov-Smirnov, $p=.065$). As these tests are quite sensitive, we also looked at the histograms. It seemed as normality could still be assumed for pro-environmental self-identity, pro-environmental behavioral intentions, social visibility, current mall attractiveness, and current mall loyalty. All variables, except hedonic Shopping Value, show positive kurtosis and all, except SCM, are negatively skewed ([Appendix F](#)).

In conclusion, we can see that too many variables are not normally distributed. Since our variables are of ordinal level and we made use of non-probability sampling, we decided to make use of non-parametric tests throughout our analysis.

4.6.3 Non-Parametric Correlation Analysis

To analyze the associations between variables as proceeding analysis to investigate hypotheses H1a, H1b, H2b, and H2c we perform a correlational analysis.

As we do not have continuous variables but ordinal data, we need to make use of the Spearman’s ranked order correlation test. Statistical hypotheses for this correlational analysis are more general compared to a Pearson correlation. The null hypothesis states the variables are independent implying that there is no association. The alternative hypothesis (H1) thus indicates an association. When researching a one-tailed Spearman’s ranked correlation, a direction of the association is implied. This leads to the following statistical hypotheses (table 4.2):

	Positive correlation	Negative correlation
H0	The effect is less than or equal to zero	The effect is greater than or equal to zero
H1	The effect is greater than zero	The effect is less than zero

Table 4.2 Statistical Hypotheses One-Tailed Spearman’s Ranked Correlations

Important to bear in mind is that ‘rho’, as an estimate of the strength of this correlation, will always provide a lower estimate of correlation than Pearson’s ‘r’ as it does not consider all the data. According to Burns and Burns (2008), there is no single way of measuring the strength of the correlation between two variables. As it is easier to compare correlation coefficients in wording rather than small numbers, we make use of the following indications: 00-.19 “very weak”, .20-.39 “weak”, .40-.59 “moderate”, .60-.79 “strong” and .80-1.0 “very strong” (Evans, 1996).

4.6.4 Non-Parametric Paired Sample T-Test

To research hypothesis H2a, we compared the means of current mall attractiveness with future mall attractiveness with a Wilcoxon signed-rank test as a non-parametric alternative to a paired samples t-test. This test allows us to compare means of a related sample (Burns & Burns, 2008) as this was necessary for our study. We presented a story about their most frequently visited shopping mall adopting pro-environmental behaviors but drew the data from the same respondents. This story can however be seen as a treatment. We do the same for the variable loyalty intention. We thus make use of a so-called one-group, pre-post design (Burns & Burns, 2008; Easterby-Smith, Thorpe & Jackson, 2015) as conceptualized in figure 4.1. This design however is not very effective, since there are still uncontrolled variables (Burns & Burns, 2008).



Figure 4.1 One-Group, Pre-Post Design

4.6.5 Non-Parametric Regression Analysis

The overarching goal of our study was not just to find associations between variables, but to understand the effect of one variable on another. We, therefore, needed to perform regression analyses for all our hypotheses and behaviors. As our research questions suggest, we research both moderated and mediated indirect effects. Hayes (2013) states that an indirect effect is rarely normally distributed. In addition to this, did the non-normal distribution of our variables not allow for a linear or multiple regression. We thus made use of Hayes' non-parametric test for regressions: SPSS PROCESS macro syntax (v. 3.4.1) (Hayes, 2013), which is a downloaded extension.

As can be seen in our theoretical framework for hypothesis one, we researched the moderating effect of social visibility on the independent variable (SCM) as well as on the mediating variable (PESI) on the dependent variable pro-environmental behavioral intention (PEBI). Besides that, we research whether PESI serves as a mediating variable between SCM and PEBI (moderated by social visibility). We hereby make use of model 15 as proposed by Hayes (2013) as it allows us to investigate all hypothesized relationships in one. To investigate hypothesis two, we operationalize model 4 of the PROCESS macro syntax, depicting a simple mediation model. As the output of this type of analysis does only provide effect sizes (R^2) for the whole model, and it does not show R^2 changes for each predictor, we report the coefficients for the direct and indirect effects. Furthermore, standardized coefficients (b) are not shown for moderated models. To be consistent, we therefore only report the unstandardized coefficient (B) for both models in our theoretical framework.

A heteroscedasticity consistent standard error (Cribari-Neto) was used to control for violations of homoscedasticity. By controlling for it, the results are more robust and will turn out less

significant (Hayes, 2013). Statistical significance is tested through bootstrapping. Bootstrapping procedures involve the generation of multiple random samples within your sample, overcoming non-normality. By analyzing 5000 random samples, accurate confidence intervals are provided (Hayes, 2013). We report lower (Boot-LLCI) and upper bound (Boot-ULCI) confidence intervals instead of associated probability levels (p / sig). When confidence intervals cross zero, this indicates that there is either no linear relationship or the relationship is due to chance (Bah, 2001).

4.6.6 Depth of Analysis

As we asked respondents to imagine a specific shopping mall when answering the questions, we can imagine that the results for a specific shopping mall may significantly differ from our overall results. We, therefore, assess the two theoretical models for the total number of respondents as well as examine differences among shopping malls.

4.7 Research Quality Criteria

Easterby-Smith et al. (2018) state that the meaning of reliability and validity is different depending on the epistemological continuum. As we have embraced a positivist approach, the way we look at reliability and validity, both internal and external, are discussed in this section.

4.7.1 Reliability

To assess a study's reliability, we must look at the internal consistency. Internal consistency assesses how closely a set of items is related (homogeneity of items). As we took our measurements from previous studies, we made sure that these studies all achieved a Cronbach's Alpha level of $\alpha=.7$ and higher (Schutte et al, 2000 cited in Bryman & Bell, 2015; Burns & Burns, 2008). All our measurements have achieved an internal consistency of $\alpha=.7$ and higher, except pro-environmental self-identity which scored $\alpha=.695$. Even though this is below the $\alpha=.7$ we still accept it as some researchers argue that a reasonable alpha value lies between $\alpha=.6$ and $\alpha=.7$ (Taber, 2018; Van Griethuijsen et al., 2015).

An overview of all Cronbach's Alpha levels can be found in [Appendix E](#). We saw that the Cronbach's Alpha level for social consumption motivation increased when taking out the item "...what others think of different brands or products" and dropped it accordingly. The Cronbach's Alpha level hereby increased from $\alpha=.827$ to $\alpha=.848$.

4.7.2 Internal Validity

According to Burns and Burns (2008), validity encompasses whether the variables measure what it is supposed to measure. Internal validity refers to the assurance that results are true, credible, and conclusions correct. Without internal validity, results are not externally valid (Burns & Burns, 2008; Easterby-Smith, Thorpe & Jackson, 2015). There are several types of internal validity such as content and construct validity (Burns & Burns, 2008).

Content validity can be assessed through pre-testing (Burns & Burns, 2008). We tested whether our pre-testers understood the concepts correctly, as explained in the section about pre-testing (4.5.1). We increased internal validity by making changes to ensure the understandability of the questionnaire. Internal validity can also be increased by assuring anonymity and by capturing responses from those interested in the topic (Burns & Burns, 2008; Easterby-Smith et al., 2018). As we assure anonymity, respondents were more likely to answer truthfully which leads to more valid responses. Nevertheless, we cannot avoid that some questions may have been answered in a socially desirable way (Easterby-Smith, Thorpe & Jackson, 2015). Even though we did not approach admins of Facebook groups focusing on sustainability or shopping malls, we found several respondents in other Facebook groups who were very interested in the topic as they stated in comments under our survey request. We, therefore, assume that we gathered several valid responses. Nevertheless, as our pre-testers stated that some focus is needed and we found that some respondents took a long time completing the survey, this may have impacted the validity of the study as they were not concentrated enough.

Construct validity encompasses the scales or tests used to measure constructs appropriately (Burns & Burns, 2008). Our measurements are taken from the literature. We examined the way these researchers stated their questions and adopted this including their measuring method such as scales and multiple-choice. This has been extensively described in the measurements section as part of 4.3. These studies showed high Cronbach's Alpha levels for the items measured, just like we did in our study, which is essential for supporting the construct validity.

The reliability only implies that the items are measuring the same thing, but do not indicate what they were measuring (Burns & Burns, 2008). The section on content validity already indicated that our pre-testers understood the concepts correctly. To assess whether the actual respondents understood the survey as well, we included a comment section that allowed us to update the survey while it was live. We received a couple of qualitative remarks. It seems that respondents understood the concepts correctly, but that some of them may have been incorrectly measured. Take for instance those who do not take away coffee since they simply do not drink it, or do not donate clothes as they wear it until it is worn out. We however consciously decided to not include alternative answer options, as this would make the analysis more complicated. We hereby acknowledge that the survey has some flaws, however limited, impacting our internal validity.

4.7.3 External Validity

An internally valid study may not be externally invalid (Burns & Burns, 2008). This is the case for our study, as the results observed are most likely a result of the selection of individuals, due to non-probability sampling (Easterby-Smith et al., 2018). As we experienced, several individuals were very open-minded and keen to help. This can be understood as sampling bias as we exclude those who are less keen and may have different views (Easterby-Smith, Thorpe & Jackson, 2015). Non-respondents may also have different characteristics and therefore non-probability sampling does not indicate a true reflection of the population (Shaughnessy, Zechmeister & Zechmeister, 2012). As mentioned earlier in paragraph 4.4.2, due to our sampling method as well as the fact that we chose to conduct a study that is context-dependent,

our results cannot be generalized to the whole population. Nevertheless, we can provide valuable insights to shopping mall management regardless of the generalizability of the results.

4.7.4 Replicability

Bryman & Bell (2015) advocate the replicability of studies. Researchers must ensure that it is possible to reproduce a study and that the results of the study must be accurate. It is therefore of importance to report procedures and findings to such an extent that it can be replicated (Bryman & Bell, 2015). As already shown in the measurements section (4.3), we have been very detailed in our explanation where the items in our questionnaire come from and why they have been chosen. We also aim to guide the reader and possible future researchers throughout our data analysis, by explaining the procedures thoroughly in the easiest and most transparent way possible. We do not only deem this necessary for the replicability of the study, but also for its read- and understandability since our data analysis mainly contains non-parametric tests of which the PROCESS macro syntax is not yet a usual one (Hayes, 2013).

5 Analysis and results

In this section, we discuss the preparation of our data and give insights into the descriptive results of our study. We then continue with the main analysis by illuminating the overarching hypotheses. In the end we summarize which hypotheses can be supported.

5.1 Preparation of Data

Before starting the data analysis, we had a closer look at our data. By looking at the time spent on each of the survey pages it became apparent that some respondents filled out some survey pages unusually quickly and always chose the same answer. We assume that these participants did not answer honestly and completed the survey to win the incentive. We excluded those and consequently, the valid number of respondents decreased by 14 to $n=336$.

The data output of SoSciSurvey automatically labels variables and orders answers. An important step was to check whether there were any errors in our original survey setup. As we worked consistently, we only found one minor labeling error. We reordered the ranks for the frequency of visits. As we used one negative statement in our survey design, we had to recode the answers from negative to positive to work with it in the analysis. As we had several multiple response questions, we redefined these variables and changed variable names to eight characters, as Hayes (2013) suggests when using the PROCESS macro syntax. We did not observe any missing values due to our questionnaire setup, making responses mandatory.

5.1.1 Aggregated Values

Before running the analysis, several variables had to be computed into a new variable. We aggregated the values for pro-environmental self-identity (five items), social consumption motivation (three items), pro-environmental behaviors and behavioral intentions (ten items), current and future mall attractiveness (both four items), and current and future loyalty intentions (two items each). All aggregated values have acceptable Cronbach's Alpha levels ([Appendix E](#)). To answer the hypotheses, we also look at the pro-environmental behaviors separately as we want to research the moderating effect of social visibility for every single behavior.

5.2 Descriptive Statistics

This paragraph gives insights into the reasons why respondents do not go to a shopping mall and the socio-demographics of those who do visit malls.

5.2.1 Reasons to Not Go to a Shopping Mall

74 respondents do not go to shopping malls. The main reasons for not going to shopping malls are that respondents “prefer the downtown shopping area” (n=34, 45%), “don’t like the crowds” (n=24, 33%), “buy everything online” (n=22, 29%) or stated that malls are “too far away” (n=19, 26%). Other reasons that were stated less often were that respondents “don’t do the shopping”, think that “the variety of stores is too little”, “get annoyed by the sales associates” or “get overwhelmed by the many choice options”. An open response option led to some qualitative findings as well:

I prefer shop houses / markets, they are less impersonal.

I only buy second-hand clothes and vegan, plastic/packaging free foods and they don't often sell that at malls.

All my clothing is second-hand. Everything else I buy from the regular store and the street market.

I prefer going to Arabic stores for fresh food and to second-hand store for clothes and furniture.

5.2.2 Socio-Demographics

To have a better understanding of our respondents, we briefly present the socio-demographics. All respondents live in Sweden of which almost half hold the Swedish nationality (n=163, 48,51%). The remaining 173 respondents come from 54 different backgrounds. Mainly females (n=243, 72,3%) participated in our study. Most respondents were in the age category 25-34 years old (n=128, 38,10%) followed by the age category 18-24 (n=79, 23,51%). The 55+ categories seem to be underrepresented constituting not even 10 percent of the sample. Most respondents either have a master’s (n=151, 44,94%) or bachelor’s (n=135, 40,18%) degree. Most participants are either currently full-time employed (n=145, 43,14%) or students (n=134, 39,88%). The income level frequencies support the finding that many of our respondents are students as almost 30% stated that their income is below 150K (n=97). One-fifth of the respondents did not want to state their income.

5.3 Shopping Mall Frequencies and Analysis

As this is an empirical study on shopping malls with the possibility of giving managerial recommendations, we first discuss frequencies and descriptive statistics regarding shopping malls.

5.3.1 Areas and Mall

Our 336 respondents go to 61 different shopping malls. When looking at the locations of the stated malls, we can confirm that our study covers respondents from the main urban areas in Sweden (Malmö=27.38%, Stockholm=21.73%, Lund=18.75%, Gothenburg=12.80%, Helsingborg=11.61%). There are several shopping malls that our respondents most frequently

visit as shown in table 5.1. An overview of all areas and shopping malls can be found in [Appendix D](#). In the following analysis, we will also dive into the results for the most frequently visited shopping malls.

Shopping mall	n	%
Nova Lund, Lund	60	17.86
Emporia, Malmö	50	14.88
Väla, Helsingborg	38	11.31
Triangeln, Malmö	22	6.55
Nordstan, Gothenburg	20	5.95
Mall of Scandinavia, Stockholm	20	5.95

Table 5.1 Frequency (n) and Percentage of Respondents' Most Frequently Visited Malls

5.3.2 Location, Visit Frequency and Motivation

More than half of the respondents stated that they take public transport or go by car to visit their shopping mall (n=206, 60.31%). The others can go there by foot or bike. Only 18.75% (n=63) of our respondents go to a shopping mall once a week or more often. Most respondents go there once or twice a month (39.29%, n=132) or once every two months or less (41.96%, n=141). When looking at the shopping malls separately, there seem to be differences in the frequency of visits ([Appendix D](#)). Particularly shoppers at Nova Lund (n=60) and Emporia (n=50) seem to shop less often compared to the other malls. As the level of observations is rather low, we cannot further investigate this phenomenon.

The motivation to visit shopping the stated malls is more utilitarian oriented (M=4.88, SD=1.17) than hedonic oriented (M=3.50, SD=1.55). The Wilcoxon signed rank test confirms this by showing that there are significant differences in means (Z=-11.881, sig=.000). In other words, respondents do seem to find what they are looking for and accomplish what they want to do on their shopping trip. They however do not agree with the statements on enjoying their shopping trip for its own sake and experiencing a sense of adventure. This is also the case for the six most stated shopping malls ([Appendix G](#)).

5.3.3 Past, Performable and Intended Pro-Environmental Behavior

In general, we can state that our respondents seem to perform all pro-environmental behaviors either sometimes or often (M=3.33, SD=0.56). "Using reusable bags" is performed most often (M=4.36, SD=0.82), and "Bringing your own mug to a café when ordering takeaway" is performed rarely (M=2.10, SD=2.10). [Appendix D](#) shows the means and standard deviations for all behaviors, also specified per mall. It looks like shoppers at Nordstan (Gothenburg)

perform more pro-environmental behaviors. The small sample sizes do not allow for further investigations (Burns & Burns, 2008).

In our study, we also assessed whether respondents deem these behaviors as performable in a shopping mall ([Appendix D](#)). They were able to select several answers and we thus report valid percentages. Most respondents checked the following behaviors: “Buy vegetarian / vegan food in store” (64.73%), “Buy reusable shopping bags” (48.45%), “Buy clothes from environmentally friendly brands” (40.72%) and “Donate or return clothes for a second life” (34.11%). The least performable behavior is “Educating myself about environmentally friendly behavior” (6.59%).

We have found some interesting descriptive results. Even though “Bringing your own cup to a café when ordering takeaway” is rarely done by our respondents, they state it is possible to perform it in a shopping mall (31.40%) and they are (rather) likely to perform this behavior in their future mall ($M=4.82$, $SD=1.70$). Besides that, respondents state that they educate themselves about environmentally friendly behavior ($M=3.42$, $SD=1.00$), but only 6.59% checked that their shopping mall offers them the possibility to do so. The intention to participate in educational events in the future shopping mall shows a neutral result ($M=4.00$, $SD=1.77$). When looking at the mall results individually, we see that the behavior “Shop second-hand clothes/items” was checked by 57.58% of the respondents that visit Emporia in Malmö. It seems like the other most frequently visited malls do not offer second-hand shops. Nevertheless, respondents stated that they sometimes shop second-hand clothes or items ($M=2.84$, $SD=1.03$) and that they are likely to do so when their mall offers the possibility ($M=5.07$, $SD=1.69$). An overview of the means and standard deviations of the ten behaviors can be found in [Appendix D](#).

The above indicates that past behavior may influence behavioral intention. Several studies (Sparks & Shepherd, 1992; Whitmarsh & O’Neill, 2010) have investigated the relationship between past pro-environmental behaviors and future intentions, as well as the relationship between pro-environmental behavior and past pro-environmental behaviors. To confirm these findings as part of our descriptive analysis, we perform a Spearman’s ranked order correlation analysis ([Appendix G](#)). Past pro-environmental behavior and pro-environmental behavioral intentions are positively and strongly correlated ($\rho=.650$, $\text{sig}=0.000$). Pro-environmental self-identity and past behavior also show to have a positive moderate association ($\rho=.574$, $\text{sig}=.000$). As these effects, including the predictive effects, have already been researched extensively, we will not further investigate these effects and merely focus on behavioral intentions.

5.4 Main Analysis: Research Question One

RQ1: To which extent does a consumers' self-identity and what others think about his/her consumption choices influence their intention to perform pro-environmental behaviors?

To answer research question one and the derived research hypothesis, we perform correlation analysis and a moderated mediation regression analysis. As shown in the theoretical framework, we aim to prove our hypotheses by looking at parts of the model separately. We therefore first examine H1a-H1d.

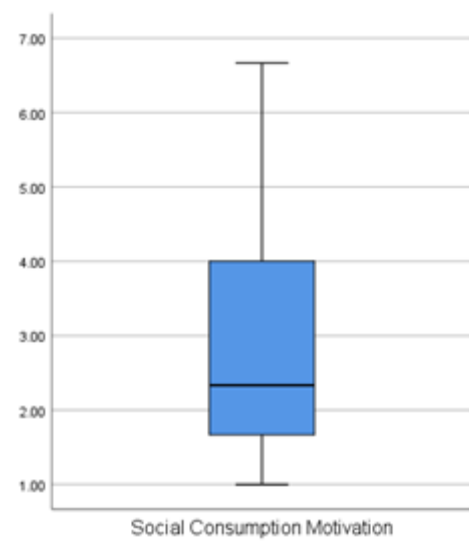


Figure 5.1 Boxplot Social Consumption Motivation

To research this hypothesis, we first dive into the means of the relevant variables. Overall, our respondents seem to identify as pro-environmentalists ($M=5.76$, $SD=0.68$). Additionally, our respondents have low levels of social consumption motivation ($M=2.78$, $SD=1.40$). Our respondents do not seem to care about what others think of their consumption behavior and do not necessarily want to make a good impression on others. The high standard deviation however shows that the answers varied per respondent as visualized in figure 5.1. As shown, most values can be found below four and are thus negative.

Respondents also show to be likely to perform pro-environmental behaviors in a future mall that adopts those behaviors ($M=5.41$, $SD=0.85$). Small standard deviations for both, the self-identity measure and pro-environmental behavioral intentions, support this assumption. However, when looking at the behaviors individually, we see that the standard deviation is quite high. This indicates the answers varied across respondents. Nevertheless, the tendency towards pro-environmental behavioral intentions is above the neutral level (4.00). In general, our respondents seem to have a positive intention to perform these behaviors in their future shopping mall (figure 5.2).

Respondents also show to be likely to perform pro-environmental behaviors in a future mall that adopts those behaviors ($M=5.41$, $SD=0.85$). Small standard

PEBI	M	SD
Use reusable shopping bags	6.42	1.04
Donate or return clothes	6.01	1.25
Buy products with less packaging	5.89	1.17
Eat organic, locally grown, seasonal food	5.65	1.22
Buy clothes from environmentally friendly brands	5.55	1.13
Buy vegetarian/vegan food in store	5.37	1.52

Get shoes or clothes repaired	5.27	1.44
Shop second-hand clothes / items	5.07	1.69
Take own mug to a takeaway café	4.82	1.70
Participate in educational events	4.00	1.77

Table 5.2 Mean and Standard Deviation Pro-Environmental Behavioral Intentions

The aggregated mean for social visibility (SVIS) shows to be 3.95, which indicates that respondents did not perceive our chosen behaviors to be extremely observable nor observable at all (SD=1.08). As the standard deviation for SVIS is a bit higher, we look at the behaviors separately through a boxplot, as shown in figure 5.3.

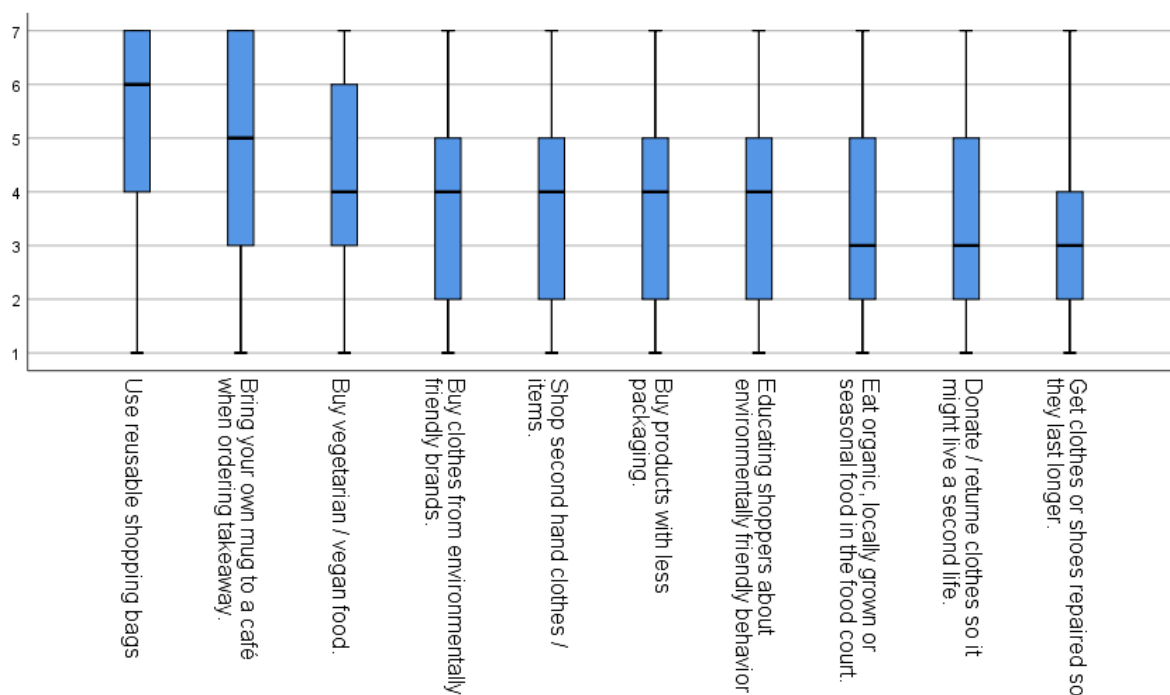


Figure 5.2 Mean and Standard Deviation Social Visibility

Five behaviors seem to hover around the middle point of the scale (M=3.63-4.30). Only two behaviors are perceived to be quite observable: “Using reusable shopping bags” (M=5.44, SD=1.63) and “Bringing your own cup to a café when ordering takeaway” (M=4.79, SD=2.04). Three behaviors are perceived as rather not observable: “Getting shoes or clothes repaired” (M=3.18, SD=1.77), “Returning/donating clothes” (M=3.34, SD=1.20), “Eating organic, locally grown or seasonal food in the food court” (M=3.51, SD=1.70). The high standard deviations and the comparatively small mean difference between, what appears to be, the most and least observable behavior, explain that the perceived social visibility of those behaviors seems to vary substantially across respondents ([Appendix D](#)).

H1a. PESI has a direct effect on PEBI, moderated by SVIS

To see to which extent pro-environmental self-identity (PESI) and pro-environmental behavioral intentions (PEBI), as well as social visibility (SVIS) and PEBI, correlate, we perform a Spearman's correlation analysis. As the literature indicates a positive correlation (Argo, 2019; Brick, Sherman & Kim, 2017; Griskevicius, Tybur & Van den Bergh, 2010; Uren et al., 2019), we choose to perform a one-tailed significance test. As we saw differences in means in SVIS per behavior, we include the ten different pro-environmental behaviors in this analysis. The statistical hypotheses are as follow:

H0: The effect is less than or equal to zero

H1: The effect is greater than zero

All behaviors seem to positively correlate with PESI as they have a significance level of close to near zero. The aggregated value shows a moderately strong correlation ($\rho=.457$, $p=.000$) and the behaviors on itself vary from very weak ($\rho=.154$, $p=.000$) to moderate ($\rho=.463$, $p=.000$). We can also confirm a significant positive correlation between SVIS and PEBI for all investigated behaviors ([Appendix G](#)). The correlation between is less strong compared to the previous analysis, as the Spearman's correlation coefficient varies from very weak ($\rho=.09$) to weak ($\rho=.382$). We thus reject the null hypothesis for both correlation analyses and accept the alternative hypothesis that there is a positive correlation effect. We can hereby assume that the more a respondent identifies as pro-environmentalist, the more likely they intend to perform pro-environmental behaviors in a future shopping mall. Besides that, it seems that the more visible behaviors are, the more they are performed.

As correlation does not equal causality, we examine the above relationships through a non-parametric PROCESS macro syntax regression analysis. The statistical hypotheses are as follow:

H0 = There is a no linear relationship

H1 = There is a linear relationship

As the PROCESS macro syntax does not allow for assessing direct effects on itself, we insert the moderating variable social visibility (SVIS). A limitation of this type of regression analysis is that we cannot report the effect sizes of the direct effect separately. PESI shows to have a direct positive effect on PEBI ($B=1.1974$, $se=.2583$, $Boot-LLCI=.7008$, $Boot-ULCI=1.7079$) as the confidence intervals do not cross zero. There is thus a linear relationship (reject H0, accept H1) and PESI predicts PEBI. Furthermore, does PESI show to be a significant predictor for all behaviors, except for "Participating in educational events about environmentally friendly behavior" ($Boot-LLCI=-.1951$, $Boot-ULCI=1.0303$). As we saw earlier in the analysis, respondents seem to educate themselves but are not interested in performing this behavior in a shopping mall. These findings are in line with the correlation analysis. In other words, the more a respondent identifies as a pro-environmentalist, the more likely they would perform pro-environmental behaviors in their future shopping mall. Although not part of our main analysis, the aggregated values for SVIS and PEBI are significant and positively correlated, and we also found a positive direct predicting effect of the aggregated value of SVIS on the aggregated value PEBI ($B=1.1575$, $se=.3752$, $Boot-$

LLCI=.4457, Boot-ULCI=1.9184). As stated earlier, we believe more insightful to look at the behaviors separately, as they all have different levels of perceived visibility and behavioral intentions. Accordingly, we only found a direct effect of SVIS for six behaviors.

Social visibility had a direct, predicting effect for the following behaviors: “Buy reusable shopping bags”, “bring your own cup to a café when ordering takeaway”, “Buy vegetarian/vegan food in store”, “Buy clothes from environmentally friendly brands”, “Donate/return clothes so they can live a second life” and “buy products with less packaging”. The bootstrap confidence intervals did not cross zero for any of these behaviors. The coefficients, bootstrap standard error and confidence intervals can be seen in Table 5.3.

In other words, SVIS does not fully seem to predict pro-environmental behavior but must not be considered irrelevant.

As there is a direct effect of PESI on PEBI, we now research whether SVIS serves as a moderator in this relationship. As the results show, SVIS seems to influence the linear relationship between PESI and PEBI when aggregated ($B=-.1575$, $se=.0615$, $Boot-LLCI=-.2836$, $Boot-ULCI=-.0415$). However, when again looking at the behaviors separately, social visibility only serves as a moderator for three of the behaviors. The moderation applies to the behaviors: “Buy products with less packaging”, “Donate or return clothes so it can live a second life” and “Buy reusable shopping bags when shopping”. As Table 5.3 illustrates, the bootstrap confidence intervals for these behaviors do not cross zero. The unstandardized coefficients consistently appear to be negative, lowering the effect of PESI on the pro-environmental behavioral intentions. In other words, the lower the level of social visibility, the more impact PESI has on the behavioral intention of those three behaviors. The variance explained through this moderation is with $R^2\Delta$ of 2.01%, 2.11%, and 2.12% rather small as can be seen in [Appendix G](#).

Direct & Moderated Effects of SVIS on PEBI	Coefficient (B)	SE	Boot-LLCI	Boot-ULCI
Using reusable shopping bags	.9613	.4090	.2153	1.7917
Moderated effect of PESI	-.1322	.0654	-.2664	-.0128
Donating / returning clothes so they can live a second life	.8427	.3874	.0750	1.5899
Moderated effect of PESI	-.1383	.0629	-.2604	-.0131
Buying products with less packaging	1.0128	.2939	.4266	1.5922
Moderated effect of PESI	-.1458	.0473	-.2383	-.0497
Bringing your own cup to a café when ordering takeaway	1.1478	.4369	.2539	1.9772
Buying vegetarian / vegan food	1.1520	.3959	.3953	1.9691

Buying clothes from environmentally friendly brands	.7397	.3451	.0762	1.4353
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Table 5.3 Direct and Moderated Effects of Social Visibility on PEBI

As PESI serves as a consistent predictor for nine out of ten behaviors and social visibility directly predicts six, but the interaction is only significant for three behaviors, we can only support H1a for the first part and do not accept the moderating effect. Consequently, we partly accept H1a.

H1b. SCM has a direct effect on PEBI, moderated by SVIS

To see to which extent social consumption motivation (SCM) and pro-environmental behavioral intentions (PEBI) correlate, a Spearman’s correlational analysis is performed. The literature is not consistent in the effect of SCM on PEBI. We, therefore, perform a two-tailed significance test, which indicates that the correlation could be positive or negative. The statistical hypotheses are as follow:

H0: There is no association

H1: There is a correlation

SCM shows a significant negative correlation with the aggregated value of pro-environmental behavioral intention ($\rho = -.110$, $p = .044$). The strength of the correlation appears to be very weak. When diving into the different behaviors separately, it is remarkable that only three out of ten behaviors show to have significant correlations. We can therefore only reject the null hypothesis and accept the alternative hypothesis for: “Use reusable shopping bags” ($\rho = -.155$, $p = .004$), “Donate or return clothes” ($\rho = -.121$, $p = .027$) and “Buy products with less packaging” ($\rho = -.196$, $p = .000$). In contrast to our assumption, the more a respondent cares about what others think about their consumption behavior, the less likely they perform pro-environmental behaviors in their future shopping mall. The results for all behaviors can be seen in [Appendix G](#).

Even though the correlation analysis shows a significant negative correlation between SCM and PEBI, SCM does not show to be a significant predictor for the aggregated value of PEBI (Boot-LLCI = $-.2166$, Boot-ULCI = $.2563$). The confidence intervals cross zero and we thus accept the null hypothesis that there is no linear relationship between SCM and PEBI. When looking at the behaviors separately, we find one significant predictive effect. SCM has a direct positive effect on “Buy vegetarian/vegan food in store” ($B = .3745$, $se = .1636$, Boot-LLCI = $.0547$, Boot-ULCI = $.7017$). This implies the more a respondent cares about what others think of him/her when buying certain brands or products, the more likely this respondent will buy vegetarian/vegan food in their future shopping mall. This is not the case for other behaviors. As only one behavior is significant, we can conclude that SCM on itself is not a predictor of PEBI.

As already analyzed in hypothesis H1a, social visibility (SVIS) does not predict the intent to

perform four out of ten behaviors. SCM on itself is also not a predictor for PEBI. We now research whether the relationship between SCM and PEBI may be moderated by SVIS. This moderating effect seems to be exclusively the case for “Buy vegetarian / vegan food in store” ($B=-.0834$, $se=.0329$, $Boot-LLCI=-.1489$, $Boot-UCLI=-.0192$) and “Buy clothes from environmentally friendly brands” ($B=-.0640$, $se=.0265$, $Boot-LLCI=-.1155$, $Boot-ULCI=-.0155$) as the bootstrap confidence intervals do not cross zero. In both cases, the unstandardized coefficient is however rather small and negative. The negative coefficients are surprising as they express that higher visibility decreases the effect of SCM on PEBI. As the unstandardized coefficients are very small in comparison with the coefficients for PESI and limited to only two behaviors, we can conclude that social visibility (SVIS) does not moderate the relationship between SCM and pro-environmental behavioral intentions (PEBI). We hereby do not support H1b and assume that the intent to perform pro-environmental behavior is not motivated by the opinion of others regarding (consumption) behavior. We deem the two significant results to be Type 3 errors, indicating misleading incorrect results (Burns & Burns, 2008).

H1c. SCM has an indirect effect on PEBI, mediated by PESI

As hypothesis H1b indicated, social visibility (SVIS) does not moderate the relationship between social consumption motivation (SCM) and pro-environmental behavioral intention (PEBI). We now investigate whether SCM has an indirect effect on PEBI, mediated by pro-environmental self-identity. The statistical hypotheses for this test are:

H0: There is no mediating relationship

H1: There is a mediating relationship

As part of this analysis, we firstly look at the relationship between SCM and PESI, which is the same for every investigated behavior. This relationship is negative and insignificant ($-.0252$, $se=.0252$, $BootLLCI=-.0779$, $BootULCI=.0271$) as the bootstrap confidence interval includes zero. Consequently, the null hypothesis needs to be accepted for this relationship. Furthermore, the SPSS output shows no moderated mediation for any of the behaviors as the confidence intervals cross zero repeatedly. We thus have to accept the null hypothesis that there is no mediating relationship. PESI thus does not seem to mediate the relationship between SCM and the different pro-environmental behaviors. The confidence intervals per behavior can be found in [Appendix G](#) under “ModMed”. This result pinpoints that the opinions of others regarding ones’ pro-environmental behavioral intentions were not relevant for our respondents, regardless of their level of pro-environmental self-identity. We thus cannot support H1c.

H1. SCM has a direct effect on PEBI, moderated by SVIS (H1b), and an indirect effect on PEBI, mediated via PESI (H1c), which in turn has a direct effect on PEBI, moderated by SVIS (H1a)

Surprisingly, the overall regression models for every single behavior express a predictive effect on pro-environmental behavioral intentions ($p > .0024$) as can be seen in [Appendix G](#). The R^2 indicates the overall effect size of the model, which seems to vary from 8.03% to 31.32%.

Whether this effect size is due to a direct or indirect effect, mediated or moderated, cannot be observed from these results. This would indicate that we can support H1. However, as we divided the main hypothesis into graspable parts, we saw that we cannot support the underlying hypotheses. Only the direct effect of pro-environmental self-identity (PESI) on pro-environmental behavioral intentions (PEBI) is supported (H1a). It, therefore, seems that the significant effect of the models and the size of it (R^2) can be solely explained by the effect of PESI and partly social visibility (SVIS). Instead of just assuming this effect, we try to simulate a direct effect by making use of model 1 which investigates a simple moderation (Hayes, 2013).

Table 5.4 shows the $R^2\Delta$, in other words, the change in effect size when social consumption motivation (SCM) and the moderating effect of SVIS on the relationship between SCM and the separate PEBIs are excluded. Important to keep in mind is that the moderating effect of social visibility on PESI is still part of model 1. Nevertheless, we see very small changes in effect size between model 15 and model 1. This indeed confirms our assumption that the effect of PESI accounts for most of the variability explained through model 15. We hereby do not support our overall hypothesis H1.

Behavior	$R^2\Delta$	R^2 Model 15	R^2 Model 1
Educate yourself about environment	n/a	n/a	n/a
Buy products with less packaging	2.81%	.3132	.2851
Shop second hand clothes/items	1.00%	.1590	.1490
Donate/return clothes...	1.70%	.0983	.0813
Get shoes/clothes repaired...	0.14%	.1188	.1174
Eat organic, locally grown, or seasonal food...	0.10%	.0803	.0793
Clothes from environmentally friendly brands	2.08%	.2565	.2357
Buy vegetarian/vegan food in store	1.74%	.2259	.2085
Bring your own cup to café...	1.54%	.1727	.1573
Using Reusable bags when shopping	0.83%	.1488	.1405

Table 5.4 Change in Effect Size Mediating Relationship

5.4.1 Summary of Findings Research Question One

Table 5.5 shows an overview of the researched hypotheses. As the sub-hypotheses can only be partly or not supported at all, we conclude that H1 is rejected.

Hypotheses	Supported
H1 SCM has a direct effect on PEBI, moderated by SVIS and an indirect effect on PEBI, mediated via PESI, which in turn has a direct effect on PEBI, moderated by SVIS.	No
H1a PESI has a direct effect on PEBI, moderated by SVIS.	Yes, partly
H1b SCM has a direct effect on PEBI, moderated by SVIS.	No, No
H1c SCM has an indirect effect on PEBI, mediated by PESI.	No, No

Table 5.5 Supported Hypotheses RQ1

We hereby have another look at our research question one. It seems that only pro-environmental self-identity (PESI) influences respondents' intention to perform pro-environmental behaviors (significant for nine out of ten behaviors). The extent to which our respondents care about what others think of their consumption choices did not seem to have a predicting effect. The latter finding is contradicting our expectations. Even though this result is insignificant, social visibility could still moderate the relationship between social consumption motivation and pro-environmental behavioral intentions. Nevertheless, also this hypothesis could not be accepted. As these results are not what we expected, we discuss possible reasons in the chapter [6](#).

The results of our study indicate that pro-environmental behaviors are likely to be adopted. Table 5.6 summarizes the results of different parts of the analysis.

Behavior	Past PEB (M) (1-5)	Intention (M) (1-7)	PESI – PEBI (B)	SVIS – PEBI (B)	Indirect effect
Use reusable bags	4.36	6.42	1.1106	0.9613	-0.1322
Donate/return clothes	4.03	6.01	0.7791	0.8427	-0.1383
Buy products with less packaging	3.32	5.69	1.1433	1.0128	-0.1458
Vegetarian/vegan food	3.42	5.37	0.9674	1.1520	
Buy environmentally friendly clothes	2.93	5.55	0.9888	0.7397	
Bring own cup to café	2.01	4.82	1.5451	1.1478	
Eat organic, local, or seasonal food	3.51	5.65	0.5988		
Repair shoes/clothes	3.29	5.27	0.8448		
Second-hand clothes or items	2.94	5.07	0.9674		
Educate yourself about environment	3.42	4.00			

Table 5.6 Ranked Order of Behaviors to Adopt

Besides the means of past performed behaviors and behavioral intention, we included the coefficients (B) of the non-parametric regression analyses. In the last column “indirect effect”, we included the results of the moderating effect of social visibility on the relationship between PESI and pro-environmental behavioral intentions (PEBI). Table 5.6 shows a ranked order of the different behaviors that are most likely to be adopted based on the outcomes of our study.

5.5 Main Analysis: Research Question Two

RQ2: To which extent does a shopping mall that adopts pro-environmental behaviors become more attractive to its shoppers and encourages them to advocate it?

To answer research question two and the derived sub hypotheses, we make use of the following non-parametric tests: Wilcoxon signed rank test for comparing means (H2a), correlation analysis (H2b-H2c) and PROCESS macro syntax (H2).

H2a. The Current Mall is less attractive (Current MA) and individuals are less loyal (Current ML) when compared to a future mall that has adopted PEB (Future MA, Future ML)

We examine whether the means for mall attractiveness and loyalty intention of the current mall (Current MA) are significantly lower compared to the mall attractiveness (Future MA) and loyalty intention (Future ML) of a future mall which adopted pro-environmental behaviors (PEB). By looking at the means of the current and future setting, we already spot differences ([Appendix D](#)). We assume that those are significant. Since our variables are of ordinal level, we investigate this hypothesis through a Wilcoxon signed ranks test.

Observation one represents the current situation and observation two represents a future observation, which has undergone a treatment. The treatment in our case is a story in which we tell the respondents that their shopping mall (that they frequently visit) has adopted pro-environmental behaviors. Even though the measurements are not taken at two different times, the survey design, the image used, and the shared story, all serve to increase respondent’s imagination of a future point in time.

The statistical hypotheses of this Wilcoxon Signed Rank Test are:

H0: the paired population means are equal

H1: the paired population means are not equal

The results show us that there are significant differences in means for Current MA (M=3.86, SD=1.20) and Future MA (M=4.80, SD=1.15) conditions; $z=-10.30$, $p = 0.000$. There was also a significant difference in means for Current ML (M=4.20, SD=1.32) and Future ML (M=5.78, SD=.88) conditions; $z=-14.41$, $p = 0.000$. We hereby reject the null hypothesis for both situations and accept the alternative hypothesis H1: “the paired population means are not equal.” These results suggest that the adoption of PEBs significantly increases both future mall attractiveness and loyalty intentions. We thus support hypothesis H2a. We believe that this

significant result is influenced by the high level of pro-environmental self-identity of the respondents. The results can be seen in [Appendix G](#).

H2b. There is a negative relationship between PESI, and current mall attractiveness (Current MA) and current loyalty intention (Current ML)

We first assess whether there is an association between pro-environmental self-identity (PESI) and current mall attractiveness (Current MA) and loyalty intentions (Current ML) through a correlation analysis. As this hypothesis indicates a direction, we make use of a one-tailed test of significance. We then examine whether PESI is a significant positive predictor for these two variables.

The statistical hypotheses for the correlation analysis are:

H0: The effect is greater than or equal to zero

H1: The effect is less than zero

PESI and Current MA ($\rho = -.147$, $p = .003$) as well as PESI and Current ML ($\rho = -.136$, $p = .006$) show to be significant and negatively correlated. We, therefore, reject the null hypothesis and accept H1 “The effect is less than zero”. According to Evans (1996), the correlation coefficients are expressing a “very weak” negative relationship between the ranks of PESI and Current MA as well as Current ML as they are below .19. That means, the higher the rank in PESI, the less attractive the mall currently is and the lower the current loyalty intention. We interpret this result as follow: respondents with a pro-environmental self-identity seem to be unable to identify with other shoppers at the mall, and the mall and its stores itself, including brands, products, and services. The results can be seen in [Appendix G](#).

As correlation does not indicate causality, we now examine whether PESI is a significant predictor. The statistical hypotheses for this non-parametric regression analysis are:

H0 = There is a no linear relationship

H1 = There is a linear relationship

Our results show that PESI seems to be a negative predictor for Current MA ($B = -.2343$, $se = .1012$, $Boot-LLCI = -.4388$, $Boot-ULCI = -.0413$) confirming a linear relationship. 1.78% of the variance in Current MA can be explained through PESI ($R^2 = .0178$). The level to which our respondents identify themselves as pro-environmentalist thus only predicts a small portion of the attractiveness of their current mall. These results are in line with the performed correlation analysis. There seems to be no linear relationship between PESI and Current ML as the confidence intervals include zero ($B = -.0265$, $se = .0472$, $Boot-LLCI = -.1186$, $Boot-ULCI = .0682$). In contrast with the correlation analysis, PESI appears to not have a significant relationship with Current ML. We consequently can only partly support hypothesis H2b.

H2c. There is a positive relationship between PESI, and future mall attractiveness (Future MA) and future loyalty intention (Future LM)

As for the previous hypothesis, we use a one-tailed Spearman's test as we research the correlation between variables pro-environmental self-identity (PESI) and mall attractiveness (Future MA) as well as loyalty intentions in the future setting (Future ML). The statistical hypotheses are as follow:

H0: The effect is less than or equal to zero

H1: The effect is greater than zero

Pro-environmental self-identity and Future MA and ML show to have an associated probability of close to near zero (.000). We therefore also reject the null hypothesis and accept H1, stating that the effect is greater than zero. When looking at the correlation coefficients, we see that the relationship between these variables is positive. PESI and Future MA have an effect size of $\rho=.277$ and PESI and Future ML have an effect size of $\rho=.259$, indicating a weak relationship as the correlation coefficients are between .20 and .39 (Evans, 1996). The higher the level of PESI of respondents, the more attractive did they perceive a future mall and expressed higher loyalty intentions towards it. We, therefore, assume that when a mall would adopt pro-environmental behaviors, those who identify as pro-environmental will be more likely to identify with other shoppers at the mall and the mall itself. The intention to recommend it to their friends and to say positive things about it will thereby increase as well.

Again, we assess whether there is a linear relationship between PESI, Future MA, and Future ML through a non-parametric mediated regression analysis. When analyzing the predictive effect of PESI, we find positive significant results for both Future MA ($B=.5482$, $se=.1092$, $Boot-LLCI=.3270$, $Boot-ULCI=.7534$) and Future ML ($B=.1226$, $se=.0545$, $Boot-LLCI=.0142$, $Boot-ULCI=.2291$). We thus reject the null hypothesis of no linear relationship and accept the alternative hypothesis that there is a linear relationship. These positive results are in line with the results of the correlation analysis. As the coefficients indicate, the linear relationship between PESI and Future MA ($B=.5482$) is stronger than between PESI and Future ML ($B=.1226$). PROCESS macro syntax only allows us to report the effect size of PESI on Future MA. 10.58% of the variance in future mall attractiveness can be explained through PESI. Nevertheless, the unstandardized coefficient expresses that the effect size for Future ML is lower than the 10.58% for the Future MA. In other words, a rather small proportion of the variance in future mall loyalty intentions can be explained through PESI. As both variables show positive significant linear relationships, we can say that H2c is supported. All inferential statistics can be seen in detail in [Appendix G](#).

H2d. Mall attractiveness (MA) has a positive direct effect on loyalty intention (ML)

As the hypothesis indicates a positive correlation, we make use of a one-tailed Spearman's correlation analysis. Our results show that there are significant correlations between current mall attractiveness (Current MA) and current mall loyalty (ML) ($p=.000$) and future mall

attractiveness (Future MA) and future loyalty intentions (Future ML) ($p=.000$). Consequently, we reject the null hypothesis and accept the alternative hypothesis, stating that the effect is greater than zero. The current MA and ML are positively correlated with a correlation coefficient of $\rho=.888$, which indicates a very strong positive association. Future MA and ML are strongly positively correlated ($\rho=.666$, $p=.000$) (Evans, 1996).

We now research the predicting effect of Current MA on Current ML. The result shows that Current MA is a significant positive predictor of Current ML as the confidence intervals do not include zero and the unstandardized beta coefficient ($B=.9918$) is above zero ($se=.0227$, Boot-LLCI=.9480, Boot-ULCI=1.0364). We, hereby, reject the null hypothesis and accept that there is a linear relationship. The PROCESS macro syntax does not allow us to report the effect size. The above supports the finding of the correlation analysis that there is a strong positive association. As for the current setting, we found that mall attractiveness also predicts loyalty intentions in the future. There is a significant positive relationship between Future MA and Future ML ($B=.4962$, $se=.0409$, Boot-LLCI=.4188, Boot-ULCI=.5772). The unstandardized coefficient shows to be lower than for the relationship between Current MA and Current ML ($B=.9918$) and thus, Future MA shows to be a less strong predictor for Future ML ($B=.4962$). We deem this understandable, due to the imaginative nature of questions asked in the survey. This is also supported by the correlation coefficients, pinpointing that Current MA and ML had a stronger positive association ($\rho=.89$) than Future MA and ML ($\rho=.67$). Regardless, we found that mall attractiveness has a positive direct effect on loyalty intentions, in both current and future settings ([Appendix G](#)). Our findings thus support hypothesis H2d.

H2. Mall attractiveness (MA) serves as a mediating variable between PESI and loyalty intention (ML), both for the current and the future setting

As the sub-hypotheses already indicate, there are several significant linear relationships between variables. The only insignificant one is between pro-environmental self-identity (PESI) and current mall attractiveness (Current MA). Especially for this relationship, it is interesting to assess whether mall attractiveness (MA) serves a mediator.

The statistical hypotheses for this non-parametric regression analysis are:

H0 = There is a no mediating relationship

H1 = There is a mediating relationship

The result for the whole model, treating Current MA as a mediating variable, shows to have an associated probability of close to zero ($se=.3283$, $p=.000$) with an effect size of $R^2=.8125$. This implies that 81.25% of the variance in current mall loyalty (Current ML) can be explained through the model. As PESI is an insignificant predictor of Current ML on itself, and as PESI only constitutes for 1.78% of the current MA, the effect can presumably be explained through Current MA. We observe an indirect effect which implies mediation. Current MA fully mediates the relationship between PESI and Current ML (Boot-LLCI=-.4388, Boot-ULCI=.0413). The indirect effect is however negative ($IE=-.2324$, $se=.1012$). This implies that

those who identify as pro-environmentalist can simply not identify with the mall and its shoppers, and therefore have negative loyalty intentions.

We already saw that PESI has a direct positive effect on future mall loyalty (Future ML). To see whether future mall attractiveness (Future MA) mediates this relationship, leading to a bigger effect size, we examine the whole regression model ([Appendix G](#)). The model shows to have an associated probability of close to zero ($se=.4198$, $p=.000$). As both PESI and Future MA serve as predictors for Future ML, we compare the unstandardized coefficients to determine the most predictive variable. Future MA shows to be substantially stronger ($B=.4962$) than PESI ($B=.1226$). 46.56% of the variability in Future ML can be explained through these two variables ($R^2=.4656$). This is lower compared to the effect size of the model for Current MA and Current ML (81.25%), which we again deem understandable due to the imaginative nature of the questions. Like in the previous analysis, there also appears to be a significant indirect effect between PESI and Future ML mediated by Future MA (Boot-LLCI=.1590, Boot-ULCI=.3918). This effect is positive ($IE=.2720$, $se=.0592$). This makes sense as the effects on itself are all positive and significant. We thus reject the null hypothesis and accept the alternative hypothesis that there is a linear relationship that is mediated.

The above analyses seem to support the overarching hypothesis. Current mall attractiveness partly mediates the relationship between PESI and mall loyalty in the current and the future setting. We thus accept H2.

	Hypotheses	Supported
H2	Mall attractiveness (MA) serves as a mediating variable between PESI and loyalty intention (ML), both for the current and the future setting.	Yes
H2a	The Current Mall is less attractive (Current MA) and individuals are less loyal (Current ML) when compared to a future mall that has adopted pro-environmental behaviors (Future MA, Future ML).	Yes
H2b	There is a negative relationship between PESI, current mall attractiveness (Current MA), and current loyalty intention (Current ML).	Partly
H2c	There is a positive relationship between PESI, future mall attractiveness (Future MA), and future loyalty intention (Future LM).	Yes
H2d	Mall attractiveness (MA) has a positive direct effect on loyalty intention (ML), both for the current and the future setting.	Yes

Table 5.7 Supported Hypotheses RQ2

5.5.1 Summary of Findings Research Question Two

Table 5.7 shows that we support all sub-hypotheses and we conclude that H2 is accepted. We now have another look at research question two. It seems that a shopping mall that adopts pro-environmental behaviors becomes indeed more attractive to its shoppers, as the means for future mall attractiveness and future loyalty intentions are significantly higher. This is also captured in the negative predicting effect of PESI on current mall attractiveness, as shoppers who identify as pro-environmentalists are unable to identify with the mall and its shoppers. Pro-environmental self-identity does not predict current loyalty intentions on itself, but it is mediated by the influence of current mall attractiveness. Pro-environmental self-identity is a strong predictor for both, mall attractiveness and loyalty intentions in the imaginary mall. The extent to which respondents identify as pro-environmentalists explains the extent to which they embrace shopping malls that adopt pro-environmental behaviors. This is visualized in figure 5.3.

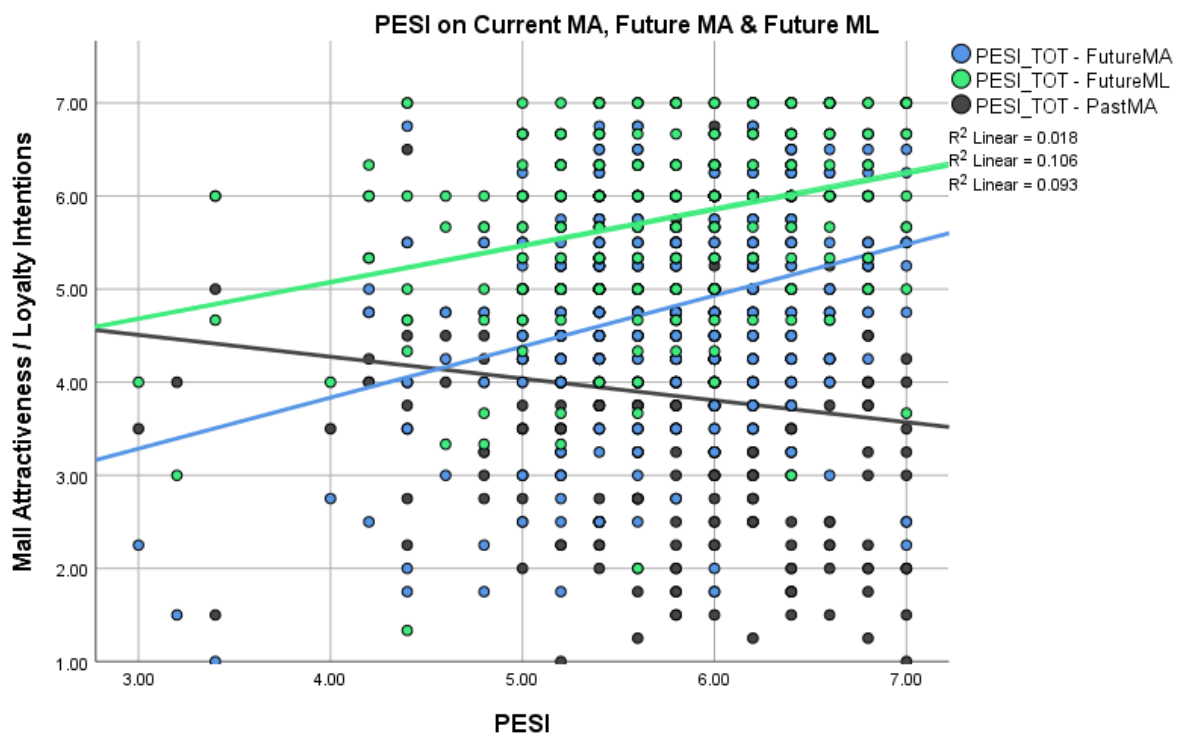


Figure 5.3 The Predicting Effect of PESI on MA and ML

In any case, mall attractiveness predicts mall loyalty. Besides that, mall attractiveness seems to mediate the relationship between PESI and loyalty intentions. We can, therefore, conclude that a mall can influence the extent to which consumers perceive the mall to be attractive and the extent to which they want to advocate it, by making sure it matches the identity (pro-environmental or not) of its visitors. This is further discussed in the next chapter.

6 Discussion

This chapter is designated to the discussion of the results of this quantitative study. We discuss the reasons for the emergence of these results in comparison to the earlier presented literature. We highlight what is in line with the literature, what is contradicting, and which new insights we gained through this study. The discussion of the results is divided into three parts, starting with the descriptive results of the study, followed by the results of the two hypotheses. Besides that, we discuss our results in the light of marketing implications for shopping mall management at the end of every section.

6.1 Visitors at the Shopping Mall

To discuss our results, we need to understand who our respondents are and where they shop. Our respondents indicated that they shop at 61 different shopping malls. Even though shopping malls differ in the extent to which they offer pro-environmental options, we observe a general tendency in our study. We believe as we cover so many different shopping malls, that the results and the corresponding suggestions are of value to shopping malls in general in Sweden.

Our results show that our respondents are mainly female (72.32%), below 34 years old (61.61%) and highly educated (91.07%). As the literature indicates, females – due to their altruistic traits -, young and highly educated people are more likely to consume more sustainably (Aspara, Luo & Dhar, 2017; Eagly, 2009; Gifford & Nilsson, 2014; Gilg, Barr & Ford, 2005). This is in line with our findings, as our sample expresses a very high level of pro-environmental self-identity (PESI) ($M=5.76$). As our respondents only cover limited characteristics of the population, it might be that these results are not representative for other groups in the population. Underrepresentation of certain groups is further discussed in the limitations section [7.4.1](#). It seems that there is at least one segment in our sample, the “pro-environmentalist shoppers”, that could be a target group for shopping mall management and marketers. We presume this segment should be treated differently from those with lower levels of PESI. This is in line with the approach by Rettie, Burchell, and Riley (2012) who, among others, argue that understanding your customers and targeting them accordingly is of importance for truly changing behavior (Abrahamse et al., 2005; Balderjahn et al., 2018). It could be true that this sample does picture Swedish consumers to some extent, including their level of pro-environmental self-identity, and could, therefore, serve as an important message to shopping malls and their management. Sweden is namely considered a frontrunner in becoming environmentally sustainable (Isenhour, 2010; Lidskog & Elander, 2012). Keeping the possible restricted generalization of the results in mind, we however discuss several suggestions for shopping mall management in relation to the findings of this study and the discussed literature.

6.1.1 Visiting the Mall is No Habit

As we argue in the introduction and the literature review, low-involvement products have a big environmental impact (Elg & Hultman, 2016; Isenhour, 2010; Moser, 2015). We state that low-involvement products are products bought on an everyday basis as they are part of daily routines and habits (Rettie, Burchell & Riley, 2012; White, Habib & Hardisty, 2019) and the habit change is crucial for sustainable behavior change (Withmarsh, O'Neill & Lorenzoni, 2011). However, as our descriptive results indicate, respondents do not seem to visit the mall as often as expected. Most visit the mall once a month or less. These findings stand in contrast to Kim, Lee, and Suh (2015), who claim that visiting shopping malls has become part of consumers' lifestyles on a more frequent basis. The products bought and behaviors performed at a shopping mall can therefore only be considered as habits to a certain extent. Literature suggests that behaviors need to be performed repeatedly to become a habit (White, Habib & Hardisty, 2019), and therefore other retail environments outside of the shopping mall should have the same aim of driving behavioral change. Nevertheless, shopping malls can be of high influence for the limited segment that visits the shopping mall on a regular basis as food consumption and the disposal of products is strongly habitual (Lehner, Mont & Heiskanen, 2016c; Verplanken & Wood, 2006). Shopping malls could encourage the repetition of pro-environmental behaviors, by changing the mall environment and making sustainable options easy to perform (Lehner, Mont & Heiskanen, 2016; Steg & Vlek, 2009). Lehner, Mont, and Heiskanen (2016) claim that changing the context in such a way that consumers are unable to carry out their normal (unsustainable) behaviors, creates the perfect conditions to break habits. Malls, as a centralized unit have the power to impose changes (Teller, 2008) and presumably stimulate the formation of new habits which may also spill-over to other retail environments.

6.1.2 The Utilitarian Value of Shopping

Even though several studies indicate that the motivation to visit a shopping mall is highly focused on hedonic pleasure (Bloch, Ridgway & Dawson, 1994; Calvo-Porrall & Lévy-Mangín, 2018; El Hedhli, Chebat & Sirgy, 2013; Swinyard, 1998), our respondents did not seem to agree with having a pleasurable experience at the malls they visit in Sweden. Presumably, our respondents state to primarily visit the mall because of functional factors. Burak and Anselmsson (2019) acknowledge that external shopping malls serve convenience seeking and frugal consumers. The former notion is in line with our results, as our respondents agreed with the statements "While shopping at this mall, I can find the items that I am looking for" and "I can accomplish just what I want to do on my shopping trip". Nevertheless, we acknowledge differences in malls as it may well be that the shopping malls assessed in our study rather serve the utilitarian seeking consumer. Therefore, another explanation could be that our respondents visit shopping malls primarily because of utilitarian motives. This may also explain why our respondents do not seem to be interested in "participat[ing] in educational events" (M=4.00) in malls. The respondents, in line with Elg and Hultman (2016), seem not to be interested in any marketing or information regarding sustainability, especially not for low-involvement products. Ha and Im (2012) however advised the opposite, as their suggestion is to organize such events and activities. Nevertheless, we can say that our respondents do not seem to seek

such hedonic experiences. However, the results may differ for those not covered by our sample. It could also be that these activities are simply not yet offered by malls in Sweden and respondents can therefore not imagine it. As the literature suggests, some shoppers visit shopping malls for pleasure and experience (Calvo-Porrall & Lévy-Mangín, 2018; Swinyard, 1998). It may be that those who do not yet identify as pro-environmentalists, may be more interested in participating in such social educational events as the literature indicates that mall visitors generally have a high need for belongingness (Ha & Im, 2012; Swinyard, 1998).

We assume that our respondents generally do not gain pleasure from shopping, as they are averse to consumption. As literature shows, shopping malls are particularly associated with consumerism (Jones et al., 2008; Day, 1999 cited in Nasution & Zahrah, 2012; Tunca & Anselmsson, 2019). We could, therefore, conclude that functional factors like tenant variety, as shown in other studies (Calvo-Porrall & Lévy-Mangín, 2018; Tunca & Anselmsson, 2019), is the most important pull factor. However, the results of our mall attractiveness measure point in another direction as the identification with a mall seems to explain loyalty intentions above these functional factors as further discussed in [6.5.2](#). We, therefore, deem it important that shopping mall management understand the underlying shopping motivation, whether utilitarian or hedonic focused, to learn in what manner to introduce pro-environmental options.

6.1.3 From Past Behavior to Pro-Environmental Intentions

Our descriptive results indicate that our respondents currently perform pro-environmental behaviors (PEB) quite often. In comparison to a study by Whitmarsh and O'Neill (2010), British participants scored a bit lower on comparable behaviors. This is in line with Swedes' strong awareness for sustainability (Isenhour, 2010) and their growing interest in recycling, repairing, and second-hand options (Retail Guide Sweden, 2019). Our analysis shows that past behavior and future pro-environmental intentions are positively and strongly correlated. Sparks and Shephard (1992) and Whitmarsh and O'Neill (2010) found similar correlations. They moreover state that past behavior has a predicting effect on behavioral intentions.

In other words, when a shopping mall management assesses how often their most frequent visitors perform certain pro-environmental behaviors outside of the shopping mall, they could encourage those to perform these inside of the mall, too. By estimating this, malls can decide which behaviors to adopt. This is further discussed at the end of this chapter in paragraph [6.6](#). There are several marketing techniques, such as nudging, that can encourage a shopper to repeat pro-environmental behaviors (Lehner, Mont & Heiskanen, 2016; Sunstein & Reisch, 2013). We, therefore, suggest shopping mall management to make use of social marketing techniques (Peattie & Peattie, 2009), including clear prompts (Werner, Rhodes & Partain, 1998), pride messages (Giebelhausen et al., 2016), and social norms (Nolan et al., 2008; White, Habib & Hardisty, 2019), as these are effective tools to drive behavioral change and maintain the adoption of pro-environmental behaviors over time (Verplanken & Wood, 2006). This might be an effective approach for the Swedish consumers that strives for congruity with the mainstream and even the most informal norms (Bertilsson, 2015; Isenhour, 2010). The above indicates that shopping mall management, with simple messages, may speak to different

shopper segments (Rettie, Burchell & Riley, 2012) regardless of their previously performed pro-environmental behaviors.

6.1.4 Pro-Environmental Behaviors Need to be Socially Visible

As discussed in the previous paragraph, past behaviors seem to predict future pro-environmental behaviors. As this has already been researched to a large extent, we examined another variable: social visibility of behaviors. Which is, the extent to which behaviors are observable by others.

Uren et al. (2019) describe different levels of social visibility, implying that eco-efficient behaviors are easier to observe by others than curtailment behaviors. The results of our study are somewhat in line with that, however, such a clear distinction is not possible for our study. For example, the mean of the eco-efficient behavior “buy clothes from environmentally friendly brands” was similar to the mean of the curtailment behavior “shop second-hand clothes or items”. This may have also been influenced by the fact that these actions are already performable in fashion firms (Stål & Jansson, 2017b). The standard deviation of the visibility of the behaviors varies substantially, which indicates varying perceptions of respondents. We believe there are two main reasons for this. Firstly, we had to choose behaviors that could be performed at a shopping mall. Secondly, and closely linked to the former, the lack of imaginative capacity for certain behaviors as they may be simply not yet performable in a mall may have led to the varying answers. As an example, second-hand shopping is already executable at Emporia in Malmö, and thus more likely to be perceived visible, compared to Nova Lund in Lund, where second-hand shopping is not an option and sustainable offers, in general, seem not to be present. Uren et al. (2019) qualitatively investigated more general behaviors that are already performable, which may have led to a clearer distinction between social visibility of behaviors.

Nevertheless, we found positive significant relationships between social visibility and the intention to perform pro-environmental behaviors. In fact, we found that six out of ten behaviors served as significant predictors for pro-environmental behavioral intentions. This implies that the more observable a specific behavior is, the higher is the intention to perform this respective behavior. This is in line with the discussed literature about social visibility (Brick, Sherman & Kim, 2017; Uren et al., 2019) and supports the idea of conspicuous sustainability (Griskevicius, Tybur & Van den Bergh, 2010; Hammad et al., 2019; Luomala et al., 2020; Millet & Dewitte, 2007; Sexton & Sexton, 2014), in a way that pro-environmental behaviors can work as a costly signal for the performant (Millet & Dewitte, 2007; Nelissen & Meijers, 2011; Uren et al., 2019). This indicates that social visibility does play a role and should not be ignored by shopping mall management. This is supported by Lehner, Mont, and Heiskanen (2016) and Argo (2019), who argue that the more accessible and visible certain behaviors are, the more likely they are performed. Before diving into further managerial recommendations, we discuss pro-environmental self-identity (PESI) and social consumption motivation (SCM) as independent variables, as well as the moderating effect of social visibility on the relationship between PESI, SCM and pro-environmental behavioral intentions (PEBI).

6.2 Pro-Environmental Self-Identity as Main Predictor

6.2.1 Lifestyle Change through Identity Campaigning?

We can conclude that pro-environmental self-identity (PESI) is indeed a strong predictor of pro-environmental behavior intention (PEBI), which is in line with findings of the literature (Brick, Sherman & Kim, 2017; Dermody et al., 2015, 2018; Gatersleben, Murtagh & Abrahamse, 2014; Shaw & Shiu, 2002a; Sparks & Shepherd, 1992; Whitmarsh & O'Neill, 2010). All these studies acknowledge that PESI is a better predictor of behavior than attitudes. We did not assess attitudes in our study but can conclude that the predicting effect of PESI shows to be consistent as it predicts nine out of ten investigated behaviors. Furthermore, the investigated behaviors have generally been performed often in the past, supporting Charng, Pilavin, and Callero (1988) that self-identity predicts habitual behavior better than attitudes. Moreover, our results are in line with the findings of Whitmarsh and O'Neill (2010) who did not only state that PESI is a better, consistent predictor but, as Truelove et al (2014), argue that it may allow for spillover effects of pro-environmental behaviors (PEB). Picking up one PEB would then lead to the adoption of consequent behaviors. Additionally, this could lead to the desired lifestyle change as one reconstructs his or her identity through the continuous performance of behavior (Belk, 1988; Binkley, 2008; Dermody et al., 2018; Lauren et al., 2016; Lee, Fernandez & Hyman, 2009). As consumers strive to reinforce their identity (Belk, 1988; Bhattacharya & Sen, 2003; Escalas & Bettman, 2003; Firat & Venkatesh, 1995), rebound effects are less likely to happen as they constitute a threat to the consistency that is needed to uphold a certain self-identity in the social context (Bertilsson, 2015; Bhattacharya & Sen, 2003; Gatersleben, Murtagh & Abrahamse, 2014; Soron, 2010; Whitmarsh & O'Neill, 2010). Our results, following the literature, thus express that stimulating the formation of a pro-environmental self-identity may help overcome consumers cynicism (Bertilsson, 2015) and may lead to actual behavioral change (Dermody et al., 2015, 2018; Gatersleben, Murtagh & Abrahamse, 2014; Whitmarsh & O'Neill, 2010). Consequently, we join the call for identity campaigning (Dermody et al., 2015; Gatersleben, Murtagh & Abrahamse, 2014). As most of our respondents already identify as pro-environmentalist, we hereby presume that the above mentioned spill-over effects are likely to happen when mall management starts promoting the participation in certain less performed pro-environmental behaviors (PEB). By priming personal characteristics like being kind, trustworthy, intelligent and altruistic (Griskevicius, Tybur & Van den Bergh, 2010; Luomala et al., 2020; Millet & Dewitte, 2007) shoppers' pro-environmental self-identity is made more salient and increases the intention to perform PEB (Costa Pinto et al., 2016). Identity campaigning should however be carefully considered, especially when identities of customers differ heavily (Bhattacharjee, Berger & Menon, 2014).

6.2.2 PESI Equals PESI?

It is remarkable, how five simple statements allow us to consistently predict the intention to perform pro-environmental behaviors (PEBI). Even though our study suggests high levels of pro-environmental self-identity (PESI), we must acknowledge that this does not have the same

meaning for every respondent. One respondent may identify as pro-environmentalists and not participate in consumption at all, while another one may simply have changed from non-sustainable consumption to eco-efficient alternatives. We found high means for PESI statements that both identified pro-environmentalists (personal identity) as well as those who want to be perceived as ‘good citizen’ (social identity) for participating in pro-environmental behaviors. These underlying motivations are in line with the literature (Bhattacharya & Sen, 2003; Brick, Sherman & Kim, 2017; Dermody et al., 2018; Dutton & Dukerich, 1991; Escalas & Bettman, 2003; Griskevicius, Tybur & Van den Bergh, 2010). These considerations imply that those who identify as pro-environmentalists cannot be treated as one homogenous group or customer segment (Rettie, Burchell & Riley, 2012).

As the literature indicates, different consumer segments may differ in perception regarding what is green and normal (Rettie, Burchell & Riley, 2012) and advocate repositioning strategies. Our results support their finding. Our study showed that “Eating organic, loyally grown or seasonal food” is performed less, and the intention to perform the behavior is lower compared to “Use reusable bags”. Herewith, we suggest that marketers should assess the shopper segments regularly, as the indicated that being a pro-environmentalists may have a varying meaning across respondents. By this means, we come back to the title of this paragraph and wish to state that PESI does not equal PESI. Repositioning what is normal should be introduced in a gradual manner (Rettie, Burchell & Riley, 2012) as shoppers may not be as pro-environment as they cynically claim to be (Bertilsson, 2017). A disregard of this advice could threaten the identity of shoppers (Bertilsson, 2017; Bhattacharya & Sen, 2003; Escalas & Bettman, 2003; Gatersleben, Murtagh & Abrahamse, 2014; Murtagh et al., 2015) which makes them resistant to participating in pro-environmental behaviors (Dutton & Dukerich, 1991; O’Neill & Nicholson-Cole, 2009). Besides the different levels of PESI as discussed above, the high level of PESI as an outcome of this study may be a result of respondents stating desirable answers. Measuring intentions to perform a behavior, especially a socially desirable one, is prone to be affected by the cynicism of consumers in a way that they seem enlightened by stating that they are pro-environmentalist, and have high intentions to perform PEB, but in fact, do not translate this into actual behavior (Bertilsson, 2015; Sheeran, Trafimow & Armitage, 2003). This, so-called intention-behavior gap, may imply that our results are over-inflated and do not picture reality accurately (Sheeran, Trafimow & Armitage, 2003).

We, therefore, recommend shopping mall management to gain insights into who their shoppers are (Balderjahn et al., 2018), what they perceive to be normal (Rettie, Burchell & Riley, 2012), the extent to which they identify as pro-environmentalists, to which extent they want to be perceived as ‘good citizen’. As discussed, we acknowledge that the meaning of pro-environmental self-identity to Swedish shoppers may vary. In the previous section, we highlighted the effectiveness of identity campaigning. We advise mall management to investigate the effects of social identity priming (Costa Pinto et al., 2016) as our PESI measure encompasses both personal as well as social identity (Reed et al., 2012). Some may participate in pro-environmental behaviors more for ‘good citizen’ reasons as it enhances their sense of self. Highlighting the importance of environmental change in combination with self-benefits (Gleim et al., 2013) is according to the literature the most effective social identity priming technique (Costa Pinto et al., 2016).

6.3 Swedes Do Not Care About What Others Think

In the literature review, we highlight that social consumption motivation (SCM) predicts pro-environmental self-identity (PESI) and predicts pro-environmental behavior (Dermody et al., 2015, 2018). In contrast to our expectations, we could not observe this predicting effect for any of these variables. This implies that Swedish consumers in our sample may not feel the need to socially display the performance of pro-environmental behaviors and their pro-environmental identity (PESI). PESI on itself thus does not seem to serve as a social status enhancer. As mentioned before, our sampling method has major implications for our results.

6.3.1 Status is a Bad Word and Being an Environmentalist is Normal

We tried to capture the importance of the opinion of others through the construct of social consumption motivation (SCM). We expected a significant relationship as our pro-environmental self-identity measure encompasses both personal- as well as social identity (Dermody et al., 2018; Reed et al., 2012). The latter would link to social consumption motivation (SCM) in such a way that the statements like “It is important to know what brands or products to buy to make a good impression on others” would relate to PESI statements like “I want my family or friends to think of me as someone who is concerned about environmental issues”. After all, there seems to be no significant relationship between social consumption motivation and pro-environmental self-identity (PESI). This is in strong contrast to Dermody (2015, 2018) which could imply that Swedish consumers adopt a pro-environmental self-identity (PESI) as they are true pro-environmentalists, not because of the influence of the opinions of others on their behavior. Nevertheless, the literature could offer an alternative explanation. Existing research indicates that in Sweden, it is generally perceived to be a non-desirable trait to give so much importance to status and the opinions of other people (Bertilsson, 2015; Isenhour, 2010; Johansson-Stenman & Martinsson, 2006). Isenhour (2010) stated that Swedish consumers generally imply that they care about the social aspect of consumption, but in fact, do care. They do not want to stand out too much from the mainstream and conform to even the most informal social norms (Bertilsson, 2015; Isenhour, 2010). Even though our respondents seemed to disagree with the statement “It is important to know what brands or products to buy to make a good impression on others”, several studies indicate that consumers want to be perceived in a positive light (Argo, 2019; Bhattacharya & Sen, 2003; Dutton & Dukerich, 1991; Granzin & Olsen, 1991; Griskevicius, Tybur & Van den Bergh, 2010; Luomala et al., 2020; Valor, 2007). Dermody et al. (2015) nonetheless acknowledge the impact of cultural differences, which may explain why the results of our study are not in line with their significant findings in the assessed markets: China, Poland, and the United Kingdom. Additionally, it may be that respondents in our study answered the first four questions of our survey in a socially desirable and cynical way, not admitting that opinions of others play a role in their consumption behavior and has consequently led to the insignificance of this measure.

Nevertheless, if our sample would reflect Swedish society and its consumers, our results would indicate that being an environmentalist is strongly embedded in the Swedish culture. A long

focus on sustainability and individual responsibility of consumers to act sustainably (Isenhour, 2010; Lidskog & Elander, 2012) supports this. In other words, being a pro-environmentalist is simply too normal in Sweden and subsequently, the opinions of others do not seem to matter in this regard. Fitzmaurice and Comegys (2006), in line with others (Belk, 1988; Bhattacharya & Sen, 2003; Binkley, 2008; Dermody et al., 2018; Escalas & Bettman, 2003; Firat & Venkatesh, 1995; Lauren et al., 2016) argue that in contemporary society, consumers have a wish to symbolize their identity to others. Our results imply that Swedes do not state to have the wish to symbolize their pro-environmental self-identity to those around them. This alternative explanation of the insignificance of SCM would indicate that Swedes reinforce their self-identity because of real altruistic motivators and not to express it.

The predicting effect of SCM on pro-environmental behaviors, even though consistent, has only been researched in two studies (Dermody et al., 2015, 2018). Furthermore, the SCM construct focuses on consumption and less on curtailment behaviors, which may explain the insignificant results. However, the social motivation for consumption, or pro-environmental behaviors, cannot be disregarded as several studies highlight the consumers' need for self-expression, self-enhancement and symbolic meaning (Belk, 1988; Bhattacharjee, Berger & Menon, 2014; Costa Pinto et al., 2016; Fitzmaurice & Comegys, 2006; McCracken, 1986). Especially since the shopping mall environment, more than other environments serves as a public place where social interaction takes place and behaviors can be conspicuously displayed (Calvo-Porrá & Lévy-Mangín, 2018; El Hedhli, Chebat & Sirgy, 2013; Jones et al., 2005). This assumption is supported by our results, as social visibility had a significant impact on the intention to perform these as discussed in [6.4](#).

We, therefore, advise shopping mall management to closely consider the impact of social surroundings in its specific culture (Brick, Sherman & Kim, 2017; Dermody et al., 2015). Especially since consumers are likely to act in a socially desirable manner in a public place where they can be observed by others (Green & Peloza, 2014; Peloza, White & Shang, 2013). As mentioned earlier in the discussion, social norms could be implemented by mall management as they are strong predictors of sustainable consumer behavior (Nolan et al., 2008). That social norms are of particular importance in Sweden has been shown by Isenhour (2010) as he claims that Swedish consumers are, due to their egalitarian culture, likely to conform to those. We recommend marketers of shopping malls to implement these norms, in such a way that they are easy to understand and salient to the individual (Cialdini & Goldstein, 2004). This can be done through prompts (Lehner, Mont & Heiskanen, 2016) in the form of signage that do not only indicate directions (Argo, 2019) to shoppers, but also “rules” in terms of pro-environmental behaviors.

6.4 The Role of Social Visibility

Social visibility could have served as a more indirect way of examining the need for expression of Swedish consumers. Either in terms of identity expression, which is related to the concept of pro-environmental self-identity (PESI) or in terms of costly signaling to obtain social status,

which we aimed to assess through the concept of social consumption motivation.

6.4.1 In Shopping Mall, Pro-Environmentalists Do Not Care

Brick, Sherman and Kim (2017) claim that pro-environmentalists adopt more behaviors or behave more consistently when these behaviors are made visible. This is in line with Argo's (2019) statement, that consumers are likely to adapt their behaviors to the observable actions of others they identify with. We found that social visibility has indeed a direct predictive effect on pro-environmental behavioral intentions in the shopping mall context, as already discussed in paragraph 6.1.4. Social visibility does however only seem to partly moderate the relationship between pro-environmental self-identity (PESI) and pro-environmental behavioral intentions (PEBI) in the mall. This stands in contrast to the general findings of Brick, Sherman and Kim (2017) who did find a positive moderating effect of social visibility on the relationship between PESI and PEBI in their U.S. study. Our results showed a moderating but negative effect for three behaviors in which social visibility played a role and contributed to the effect size of our hypothesized model. Even though the effect was small, we can conclude that those who define as pro-environmentalist do not need behaviors to be observable in contrast to those who do not identify as pro-environmentalists. This is surprising, but Brick, Sherman and Kim (2017) also acknowledge that the impact of visibility may vary widely across contexts. We expect cultural differences to play a crucial role, as the United States seems to be more status-oriented compared to Sweden (Bertilsson, 2015; Isenhour, 2010; Johansson-Stenman & Martinsson, 2006). Moreover, we investigated the shopping mall context whereas Brick et al. (2017) and Uren et al. (2019) researched the social visibility phenomenon in a non-specific context. By this means, we can conclude that the positive moderating effect in their study and the negative moderating – even though limited – effect in our study can be justified.

If social visibility had served as a more consistent moderator of PESI on PEBI, we could have fully supported Isenhour (2010) in his statement that Swedes simply do not want to acknowledge to care about others' opinions in their behavior and do not seem to care about status. Several studies, however, argue that expressing ones' pro-environmental behaviors (PEB) to others, may help obtain a "good citizen" reputation and may furthermore lead to the obtainment of status characteristics such as being kind, cooperative and trustworthy (Griskevicius, Tybur & Van den Bergh, 2010; Millet & Dewitte, 2007). Acquiring those status characteristics through pro-environmental behavior does not seem to have the same effect, as performing these behaviors and being a pro-environmentalist is already perceived to be normal. De Nardo (2017) argues, that some PEBs are becoming too normal to work as status signifier, but that this could consequently lead to more extreme behaviors in the competition for social status. That social visibility could help to create new status values for behaviors that are not yet visible, nor normal is highlighted by the direct effect on six behaviors. As social visibility did not show to moderate in our context but showed a direct effect, we conclude that pro-environmental behaviors, in alignment with literature (Delgado, Harriger & Khanna, 2015; Elliott, 2013; Griskevicius, Tybur & Van den Bergh, 2010; Luomala et al., 2020; Nelissen & Meijers, 2011; Sexton & Sexton, 2014; Uren et al., 2019; Zabkar & Hosta, 2013) could work

as costly signal, especially in a more representative sample. Consequently, we call for social visibility enhancement through non-traditional marketing techniques. We recommend marketers of malls to make use of environmental cues (Lehner, Mont & Heiskanen, 2016), such as placing prompts close to where the behavior can be performed (Werner, Rhodes & Partain, 1998). The literature shows that prompts are a good initial strategy, as they are cost-effective and easy to combine with other strategies (Schultz, Oskamp & Mainieri, 1995). Increasing the visibility of PEB could also help to avoid motive ambiguity so that others do not perceive that the performance was due to frugality (Argo, 2019; De Nardo et al., 2017).

6.4.2 Or Could They Simply Not Imagine?

We argued in the previous section, that we believe that pro-environmental behaviors could work as a costly signal, especially to those with a high need for expression and thus a high expected level of social consumption motivation (SCM). We, therefore, expected that social visibility could moderate the role between SCM and pro-environmental behavioral intentions. We are the first to investigate this relationship. Our initial thought could however not be supported, as expressed by the insignificance of our results. We however still assume our hypothesized relationship might be true and that further investigation with varied research design can help identify it.

We found three reasons that may explain why we did not find our hypothesized relationship between social consumption motivation and pro-environmental behavioral intentions, moderated by the variable social visibility. First of all, non-probability sampling likely has had a major impact as some characteristics are overrepresented. The limitations are further discussed in section [7.4.1](#). Secondly, the insignificance of social visibility can be accounted to the abstractness of the concept in general and the fact that it was hard to imagine the visibility of behaviors that are not yet performable in a shopping mall. The third reason is related to the way we measured this construct. While Brick, Sherman, and Kim (2017) nested behaviors in their multi-level model, we investigated visibility and behavioral intention separately to allow for concrete recommendations for certain behaviors. In addition to the above, for behavior to work as a status signifier, it needs to be not only visible but effortful and costly (Uren et al., 2019). As we discussed in the literature review, pro-environmental behaviors (PEB) come at higher costs in a way that they are generally more effortful – with regards to time or money. For our study, we consciously left out the factor costliness as it cannot be influenced by shopping malls. We deemed the factor social visibility to be of particular importance as the investigation allows us to conclude if the performance of pro-environmental behaviors originates in status motives. We acknowledge, that the effortfulness of behaviors could be influenced by shopping malls as it may hamper the adoption of behaviors (White, Habib & Hardisty, 2019). Nevertheless, as we wanted to examine how the symbolic meaning of products could be operationalized to stimulate a sustainable lifestyle, we excluded this factor. Mall management can highlight the visibility and effort by making use of pride messages, which speaks to those already performing pro-environmental behaviors and will make them maintain such behaviors over time (Antonetti & Maklan, 2014; Giebelhausen et al., 2016). Those who

do not put the effort into performing these behaviors will hereby experience a feeling of guilt (Antonetti & Maklan, 2014). By using such messages consumers may reconsider their behavior and eventually comply with what is socially desirable (Steenhaut & Van Kenhove, 2006) and can hereby portray themselves as ‘good citizen’. Mall management should however be careful in such messages, as it can also threaten the identity of consumers and result in complete denial of pro-environmental actions (O’Neill & Nicholson-Cole, 2009).

6.5 Mall Attractiveness and Loyalty Intention

The results of the analysis of the second research question were as expected and will be discussed in the following. We researched whether mall attractiveness serves as a mediating variable for the relationship between pro-environmental self-identity and loyalty intentions, for both the current and the future mall setting. Even though we had a limited number of items to measure the variables of the second research question, the items showed high internal consistencies and mainly significant results. Several studies highlight the impact of mall attractiveness on customer satisfaction and word of mouth promotion (Calvo-Porrall & Lévy-Mangín, 2018; El Hedhli, Chebat & Sirgy, 2013; Ha & Im, 2012; Mohammad Shafiee & Es-Haghi, 2017). Ha and Im (2012) claim that mall attractiveness, including self-congruence, leads to mall advocacy. Self-brand connections also happen to predict loyalty intentions (Escalas & Bettman, 2003; Escalas, Gallo & Gaustad, 2019). We, therefore, combined self-congruence and self-brand connection to measure mall attractiveness and found a significant predicting effect on mall loyalty in both the current and future mall setting.

6.5.1 Shoppers can Identify with the Future Mall

We assessed the change of mall attractiveness and mall loyalty “over time” with a story treatment of malls adopting pro-environmental behaviors. Our results suggest a significant difference in mall attractiveness and loyalty intention between respondents’ current and future mall, as the future mall better reflects the identity of the respondents in our study and thus self-congruence, as well as self-brand-connection, occurs.

The underlying reason for this increase in attractiveness is an expressed high level of pro-environmental self-identity (PESI) by respondents in our study. This is confirmed by the negative significant effect of PESI on current mall attractiveness and the positive significant effect of PESI on both future mall attractiveness and future loyalty intentions. Tunca and Anselmsson (2019) argue that the average shopper at external malls is less sophisticated and less moral compared to those who shop in the downtown area. It is, therefore, not surprising that our highly educated pro-environmental shoppers, who not frequently visit the mall, cannot identify with the current mall and its shoppers. Additionally, shopping malls are a place where consumerism is promoted (Jones et al., 2005; Day, 1999 cited in Nasution & Zahrah, 2012; Tunca & Anselmsson, 2019) and thereby shows to be an anti-thesis of sustainability (Jones et al., 2008). This was already indicated by the measures for hedonic and utilitarian shopping value, as our pro-environmental respondents are most likely averse to consumerism and thus do not derive pleasure from their visit. The absence of opportunities to perform pro-environmental behaviors (PEB) or the lack of sufficient promotion of these PEBs might be another reason. Teller (2008), as well as Levy and Weitz (2006), give an explanation for the

absence of pro-environmental behaviors at the mall. The mall layout is simply not suitable for smaller retailers, such as second-hand stores and repair services. Besides that, the large retailers are the ones that attract the highest share of visitors, and thus offering more sustainable offerings are a threat to the malls' business (Levy & Weitz, 2006; Teller, 2008).

In case our findings picture Swedish shopping mall visitors to a certain extent, the adoption of pro-environmental behaviors should be considered by shopping mall management. It seems that, regardless of which shopping mall our respondents visited, that the connectedness with the mall and its shoppers increases and the likeliness that respondents speak positively about the mall once it has adopted pro-environmental behaviors. This recommendation should however be carefully considered, as our results suggest a general tendency and we faced several high standard deviations that may suggest significant differences between malls. One must keep in mind that no shopping mall is alike (Tunca & Anselmsson, 2019) and most likely attracts different types of shoppers.

6.5.2 “Self-mall-congruence”

It has been argued that mall attractiveness encompasses more than the need for identification with a mall such as tenant variety, entertainment facilities, promotional activities and the physical environment (Anselmsson, 2006; Calvo-Porrall & Lévy-Mangín, 2018; Chebat, Sirgy & St-James, 2006; El Hedhli, Chebat & Sirgy, 2013). However, the results of our mediation model express that a major part of shoppers' loyalty intentions can be mainly explained through our mall attractiveness construct. About 80% of these loyalty intentions in the current setting could be explained by the extent to which shoppers can identify with the mall and its shoppers. In the future setting, a smaller effect size was found. This can be attributed to the imaginative nature of the future mall. Identifying with a mall is presumably more abstract than with e.g. a fashion brand. Imagining which people would go to this future mall and if one would be congruent to those may have impacted the explained variance of the mediated relationship. The discrepancy in effect sizes can thus be justified. By investigating the mediating effect of mall attractiveness we have followed the pledge by Zhang and Bloemer (2008), demanded more research on intangible cues such as self-congruence due to inconsistencies in past findings. Additionally, Chebat, Sirgy, and St-James (Chebat, Sirgy & St-James, 2006) argue that the impact of shoppers on other shoppers has not gained much attention. Our results show to be significant and thus state that pro-environmental self-identity, mall attractiveness, and mall loyalty are linked to one another in a way that our respondents are dissatisfied with their current mall and would be content with their mall adopting pro-environmental behaviors in the future.

Several studies considered tenant variety and the physical environment as the most important factors influencing mall attractiveness (Anselmsson, 2006; Calvo-Porrall & Lévy-Mangín, 2018; Teller, 2008). However, those studies did not investigate the impact of self-identification. Ujang, Kozlowski, and Maulan (2018) state that social experiences and emotional elements, like identifying with others, are essential in establishing attachment with places, such as a mall. In alignment with this, our study showed a strong predicting effect. By this means, we would like to introduce the new term “self-mall-congruence”. We confirm the limited literature that malls can indeed serve as brands (Merrilees, Miller & Shao, 2016), as our respondents showed

they are likely to identify with the future mall setting. As we assessed the change of mall attractiveness and mall loyalty with the treatment of malls adopting pro-environmental behaviors, we can indirectly state that the current tenant variety is not satisfying our pro-environmentalist respondents. The story treatment indicates the inclusion of e.g. a second-hand store, a repair shop, and the offering of organic, locally grown or seasonal food. As a result, the mall environment mall change, perhaps not in terms of smell, music, and decoration, but certainly in terms of layout (Teller, 2008). Either in terms of tenants or pro-environmental behaviors that are made more visible and get stimulated. Previous literature focused on changes in the physical environment by introducing a sustainable retail design, which led to a positive mall image (Ogle, Hyllegard & Dunbar, 2016; Ortegón-Cortázar & Royo-Vela, 2017), but did not encourage true behavioral change as we investigated in this study.

We suggest shopping malls managements which aim for taking responsibility and keeping their pro-environmental shoppers satisfied, to make use of prompts in the form of signage and hereby unconsciously drive behavioral change (Lehner, Mont & Heiskanen, 2016). Prompts could further stimulate the use of e.g. reusable bags and own coffee mugs, as our respondents indicated they are likely to perform these behaviors in the future. Besides that, the findings of our study pinpoints that respondents return or donate clothes and seem to be aware that this is performable in a shopping mall. By making changes to the physical environment, such as placing a donation box in the mall itself and promoting the stores that support it, the performance of this behavior is more likely (Lehner, Mont & Heiskanen, 2016). Changes in the physical environment are thus needed to make sure that the so-called “self-mall congruence” for pro-environmentalists, as investigated in this study, can be achieved and that the intentions to perform pro-environmental behaviors are likely to translated into action (Sheeran, Trafimow & Armitage, 2003). By this means, we encourage shopping mall management to assess shoppers’ “self-mall-congruence” and be more than just a mall promoting sustainability by truly understanding its visitors.

6.6 Adoption of Pro-Environmental Behaviors

Our study illustrates that when a mall adopts pro-environmental behaviors, the more likely “self-mall-congruence”. We have highlighted the importance of gradually introducing (Rettie, Burchell & Riley, 2012) pro-environmental options to make sure shoppers do not feel their identity is being threatened (Bertilsson, 2015; Bhattacharya & Sen, 2003; Gatersleben, Murtagh & Abrahamse, 2014; Murtagh et al., 2015). The results of our study show that shoppers are most likely to adopt the following behaviors: “Buy reusable bags when shopping”, “Donate or return clothes” and “Buy products with less packaging”. These behaviors show to be predicted and moderated by social visibility so that an increase in visibility would make individuals that may not yet define as pro-environmentalist adopt these behaviors. This may be a result of the need to conspicuously display conformity with social norms (Isenhour, 2010) or to acquire social status (Brick, Sherman & Kim, 2017; Griskevicius, Tybur & Van den Bergh, 2010; Hammad et al., 2019; Murtagh et al., 2015; Sexton & Sexton, 2014; Uren et al., 2019; Zabkar & Hosta, 2013). We, therefore, suggest shopping mall management to firstly implement

the three behaviors discussed above. Those behaviors are quite common in the contemporary retail environment (Rettie, Burchell & Riley, 2012; Stål & Jansson, 2017b). Using reusable bags is seen as green and is executed by many as it is perceived to be normal (Rettie, Burchell & Riley, 2012). Shopping mall management could make reusable bags the default mode, which will encourage shoppers to make use of it more (White, Habib & Hardisty, 2019). Since donating or returning clothes is already possible in store (Stål & Jansson, 2017), we suggest shopping mall management to simply increase the visibility of this behavior by introducing it to the mall environment itself.

Our results suggest that the following behaviors are also likely to be adopted by shoppers as they are influenced by social visibility: “Buy vegetarian/vegan food in store”, “Buy clothes from environmentally friendly brands” and “Bring your own cup to a café when ordering takeaway”. These results are not surprising, as being vegetarian is becoming increasingly common (De Nardo et al., 2017), and buying clothes from environmentally friendly brands is already possible in Sweden (Stål & Jansson, 2017). The literature suggests that as being vegetarian becomes so normal, the ascendant, becoming vegan could follow as a better, more extreme status marker (De Nardo et al., 2017). In a similar vein, we also assume that the intention to buy clothes from environmentally friendly brands may spill-over to shopping second-hand (Truelove et al., 2014; Whitmarsh & O’Neill, 2010). Even though our respondents do not yet bring their cup to a café when ordering takeaway, they are likely to do so in the future. By making the performance of behaviors easier (Sheeran, Trafimow & Armitage, 2003; Steg & Vlek, 2009; White, Habib & Hardisty, 2019), the adoption of one may work as a catalyst and lead to subsequent adoptions (Truelove et al., 2014; Whitmarsh & O’Neill, 2010).

The above mentioned six behaviors are already quite easy to perform and do not require drastic changes to the mall environment. By simply enhancing the visibility, pro-environmental behaviors are likely to be performed more often (Lehner, Mont & Heiskanen, 2016; White, Habib & Hardisty, 2019). The last four behaviors we have studied require more effort and changes to the physical environment, as well as changes to the current tenants. These are therefore not recommended as initial behaviors to adopt by mall management, as it may negatively influence the “self-mall-congruence” of those who do not identify as pro-environmentalists resulting in a threat to the self (Bhattacharya & Sen, 2003; Escalas & Bettman, 2003; Gatersleben, Murtagh & Abrahamse, 2014; Murtagh et al., 2015; Valor, 2007) and consequently negative word of mouth (Ha & Im, 2012). However, as shopping malls nevertheless have the power to choose tenants and force them to perform a certain marketing strategy (Teller, 2008). Literature suggests that image transfer of big stores has a positive influence on the overall image of a mall (Chebat, Sirgy & St-James, 2006). We hereby assume that the inclusion of a couple of pro-environmentally oriented retailers does not harm the overall image and does not pose a threat to non pro-environmentalists identities. Nevertheless, shopping mall management should only follow our advice when their shoppers are somewhat similar to our sample. Even though the literature suggests that the performance of certain behaviors can work as a catalyst for others (Truelove et al., 2014; Whitmarsh & O’Neill, 2010), this could not be observed in our study due to its cross-sectional nature.

6.7 Newly Established Framework

To summarize the key findings, a framework showing the (partly) confirmed hypotheses was developed as illustrated in figure 6.1. The main goal of the framework is to visualize how the two discussed constructs and thus the two research questions relate to each other in the shopping mall context in Sweden. Pro-environmental self-identity (PESI) is the key variable in both constructs, as it directly impacts the intention to perform pro-environmental behaviors (a) and “self-mall-congruence” (b). A mall that adopts pro-environmental behaviors becomes more attractive to those who identify as pro-environmentalists (c). Besides the fact that “self-mall-congruence” predicts mall loyalty (e), we believe it influences and is influenced by other factors that are part of the overarching concept: mall attractiveness (d). As discussed in paragraph 6.5.2, our concept “self-mall-congruence” evaluates the availability of more sustainable tenants and changes to the environment that encourages shoppers to perform more pro-environmental behaviors.

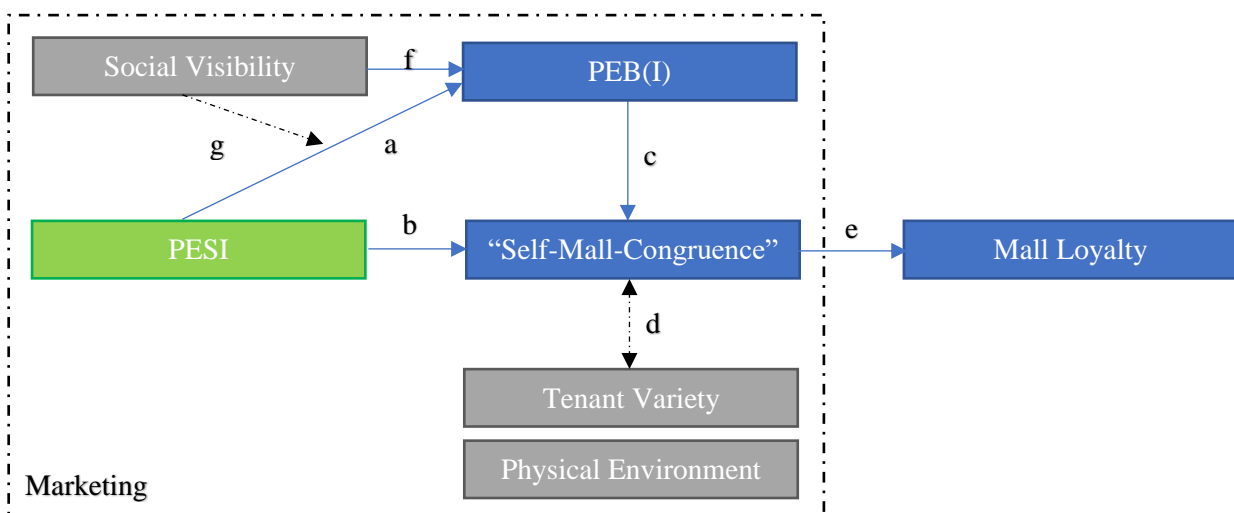


Figure 6.1 Established Framework for Shopping Malls in Sweden

Social visibility showed to predict the intention to perform six out of ten behaviors (f) and moderated the relationship between PESI and PEBI for three behaviors (g). The line is dotted, as it did not have the expected impact. Nevertheless, we believe social visibility can be enhanced, just like PESI and “self-mall-congruence” through non-traditional marketing techniques – like identity campaigning and nudges – executed by shopping mall management and marketers. We consciously exclude social consumption motivation from our framework, as the results did not support any of our hypotheses. We believe that social visibility and social identity as part of pro-environmental self-identity (PESI) already encompasses the concept of social consumption motivation.

7 Conclusion

This chapter summarizes the study by providing theoretical contributions and practical implications. We end with the encountered limitations and suggestions for future research.

7.1 Research Aim

The purpose of this study was to enhance the understanding of what makes shoppers perform more pro-environmental behaviors and how this can be influenced by managers and marketers in the shopping mall context. To achieve this purpose, a systematic literature review and an extensive empirical study were conducted. We conclude that pro-environmental self-identity is the main motivator to engage in pro-environmental behaviors, directly influences the extent to which one can identify with the mall and its shoppers and in turn leads to mall loyalty. Shopping mall management and marketers can enhance the visibility of certain behaviors and hereby increase mall attractiveness. We elaborate on these conclusions in the following.

7.2 Theoretical Contributions

We intended to contribute to the existing literature on the necessary lifestyle change that is urgently needed to not jeopardize the needs of future generations. Through our study, we highlight the importance to focus on the social context in which consumption happens and the sociology behind it. By drawing upon literature within self-identity theory, we aimed to get insights into contemporary Swedish society which is characterized by consumerism and the influential power of brands and companies. Our study shows that Swedish consumers tend to construct and reinforce their identity through behavior in a way that the intentions to perform pro-environmental behaviors are aligned with their identity projects. This is also captured by the predictive consistency of pro-environmental self-identity across behaviors. We hereby contribute to the existing literature on self-identity. Moreover, we introduced the pro-environmental self-identity construct into a specific public arena: shopping malls.

That the reinforcement, communication, and conspicuous display of behaviors play an essential part in contemporary postmodern society is confirmed through the predictive power of social visibility. Even though consumers stated that the opinion of others does not impact their decision making, and the measure of social consumption motivation did not show significant results, the indirect measure of social visibility pointed in a different direction. We confirmed that the more visible behavior is, the less important the level of ones' pro-environmental self-identity. It appears that, besides an individual's pro-environmental self-identity, the conspicuous display and the subsequent obtainment of desirable status characteristics motivate sustainable consumption choices. These results furthermore provide insights into how to

approach social visibility in the future and are thus relevant for researchers of conspicuous sustainability. As the literature on social visibility in the domain of sustainable behavior is very limited, we contribute substantially to this fairly new literature stream and advocate it over other status-need-measures like e.g. social consumption motivation. Although the measure of social consumption motivation has been tested in different settings before, it appeared to be of no importance in our investigated context. Generally, the importance of context – not only social context - in which (anti-)consumption takes place is highlighted by this and other studies.

As our goal was to investigate a certain context where a lifestyle change could be stimulated, shopping malls were chosen as they constitute a centrally managed and thus powerful third place where social interaction happens. As malls can, through their offerings, help individuals to fulfill identity projects, we treated malls as brands. Accordingly, we measured the extent to which one can connect to the mall and its shoppers. By doing so, we extended the first part of our study and find that pro-environmental self-identity, besides behavioral intentions, positively predicts “self-mall congruence” in case pro-environmental behaviors are adopted by a mall. The extent to which one could identify with the mall in turn positively predicted loyalty intentions. We are the first to investigate the pro-environmental self-identity construct in the shopping mall context and also the first ones to measure, beyond self-congruence, the connection to the mall itself. The newly introduced measure “self-mall-congruence” shows to explain a large part of consumers' mall advocacy. While the literature would perceive this construct as only one factor of male attractiveness, we argue that it influences other more functional ones. Accordingly, it depicts the starting point to assess mall attractiveness. We thus claim to have made a unique contribution to understanding the importance of the self in a social context. Our results enrich the literature on how brands and shopping malls maintain and acquire loyal customers - by considering the self-identity of their visitors.

7.3 Practical Implications

The study of 61 shopping malls in Sweden provides interesting insights for shopping mall managers and marketers as well as for other public places that are highly characterized by consumption. As consumption and sustainability are paradoxical, shopping malls serve as an important lever for breaking unsustainable habits.

The most important takeaway for management is that pro-environmental self-identity also in this specific context happens to be a strong predictor for pro-environmental behaviors. We recommend shopping malls that aim for sustainable lifestyle changes, to assess whether their customer base also reflects the salient identity: pro-environmentalists, like in our study. We suggest marketers of malls to further segment their shoppers according to their (social and personal) identities. As pro-environmental self-identity shows to be such an independent behavior predictor, we pledge for identity campaigning by highlighting characteristics such as being trustworthy, intelligent, and altruistic. Additionally, the predictive impact of social visibility is another valuable insight for mall management and marketers, as an increase in the visibility of behaviors would consequently lead to greater adoption of pro-environmental

behaviors by its shoppers. Shopping malls, with their centralized management, have the power to not only make such behaviors more visible by changing the mall environment, but also to promote them through social marketing practices and the use of social norms.

Even though our results indicate that Swedish consumers do not care about what others think of their behavior, they want to be perceived as someone concerned about environmental issues as depicted through the self-identity construct. The Swedish' culture of conformity may, therefore, lead to the adoption of certain behaviors when promoted by the mall. The extent to which changes are introduced should however be carefully considered. Our results suggest that those who identify as pro-environmentalists can identify with a mall that adopts pro-environmental behaviors and consequently with its shoppers, as they are like him or herself. As mentioned earlier, other customer segments should not be overlooked. When the identity of a mall changes too much, it may result in negative loyalty intentions and mall advocacy. We thus advise shopping mall management to gradually introduce its shoppers to more sustainable actions, e.g. highlighting the possibility to donate clothes before introducing a second-hand store, so that the continuous connection between mall and shopper is ensured. Where previous studies highlighted tenant variety and the physical environment as the main predictors of mall attractiveness, we advise mall management and marketers to firstly assess the intangible attractiveness through our construct "self-mall-congruence". This construct can easily be replicated by mall management by adopting the same measures as we used for our study. Mall management will be able to identify misalignments between a shoppers' identity and the malls' identity. By further researching these discrepancies, mall management can examine the necessary changes – e.g. change of tenants – to make the mall more attractive to its visitors. Overall, the results of this study suggest that mall management and marketers need to understand the most salient identities of their shoppers and their consequential motivations to consume. As this study has been shaped by both theoretical as well as practical input (INGKA Centres), we believe our survey could be adopted and modified by marketers and management to find answers to the above for their particular shopping mall.

7.4 Limitations

Although this study confirms several hypotheses and hereby contributes both to academic literature as well as the business realm, we admit that our study entails several limitations. As master students with time and budget constraints, we do not claim our work to be flawless. By openly describing them, we hope to encourage and inspire future researchers to either replicate our study or extend our findings.

7.4.1 Limitations of the Methodology

The most impactful limitation of our study is the fact that we were forced to change from mall intercept surveys to online self-completion questionnaires, as an outcome of the outbreak of COVID-19. This has had major implications for the results of our study, as further discussed.

We first want to highlight the selection bias we faced, as a result of the canceled collaboration with INGKA Centres late in the thesis process. As a result, we were not only unable to reach out to their customer base but also not able to redesign our survey because of time constraints. The attempt to find a replacement collaboration was unsuccessful.

Despite our efforts to include as many characteristics, our results suggest that our respondents mainly consist of female, highly educated individuals that are mostly younger than 34 years old and from southern Sweden. This is not representative of the population and may have been a result of snowball sampling, the inadequate judgment of representative groups, and a high level of non-response, as discussed in chapter 4. We can hereby say that our sample is highly biased, as it includes too many units with one particular characteristic (Burns & Burns, 2008) indicating that there is a serious coverage problem (Bethlehem, 2010).

Moreover, as the literature indicates, females – due to their altruistic traits as well as young and highly educated people are more likely to consume more sustainably which has most likely influenced our results (Aspara, Luo & Dhar, 2017; Eagly, 2009; Gifford & Nilsson, 2014; Gilg, Barr & Ford, 2005). Our convenience approach furthermore implies that we accepted those being available and willing to help (Easterby-Smith et al., 2018), pinpointing certain altruistic values which, as literature indicates, is a trait that pro-environmentalist claim as well. This may be an explanation for the high level of PESI and the low level of SCM in our sample. In addition to the above, another selection bias is the inclusion of respondents who do not shop very regularly at the mall, implying that they might also shop downtown or online, and as a consequence may shop at a mall for more utilitarian reasons than for hedonic pleasure, as literature suggests. These results indicate a non-representative sample and are thus not generalizable.

A limitation that is highly interlinked, is that we could not control for the environment. Our obtained data indicates that some respondents completed the survey under distracting conditions, as the time spent on certain pages was outstandingly high. As respondents were repeatedly asked to imagine a certain environment, those who did not pay full attention may have been unable to do so, decreasing the reliability of the results (Shaughnessy, Zechmeister & Zechmeister, 2012). This may explain why the means for social visibility hover around the middle option. Many of the above-mentioned limitations could be tackled by conducting mall intercept rather than online surveys. Mall intercept surveys would have allowed us to acquire supplementary observation data, through which we could have gained a better understanding of why consumers behave the way they do (Burns & Burns, 2008) as many of our concepts are social context-dependent.

Another limitation, is our quantitative approach which forced us to simplify questions using Likert Scales that allow for comparison amongst other variables. As the behaviors were repeatedly tested throughout the survey, we had to make sure that there were supported by literature as well as relevant for INGKA Centres. The number of behaviors and items measuring other constructs had to be limited to make the survey for respondents as well as the analysis for ourselves manageable. We hereby admit that we may have overlooked certain

flaws, by e.g. assuming that those who do not eat meat will buy vegetarian substitutes rather than adjusting their eating habits to vegetables and fruits. Buying vegetarian options does also not indicate that someone does not eat meat. Adding the option “not applicable” was simply not suitable, as it would have increased the complexity of our study. Even though we could contribute to the literature by confirming several hypotheses, we agree with Burns and Burns (2008), who state that the simplification of questions is the price you pay for finding patterns in behavior. By choosing a quantitative approach we accepted that we may miss contextual details, such as not fully understanding what being an environmentalist entails. Metaphorically speaking, we decided to take the role of a fisherman that tries to find patterns in the changing flocking behavior of fish. The role of a marine biologist would however allow us to see what the change in this behavior may have caused. We faced some unexpected results as we were unable to illuminate the causalities behind the insignificancies of social consumption motivation and, partly, social visibility. Due to our quantitative approach, we could at best assume that the Swedish culture of conformity and the cynicism of consumers led to the insignificance of the first and that the predicting effect for the latter can be distributed to status motives. We thus call for a mixed approach to further investigate the phenomenon of conspicuous sustainability in the mall context. This would allow for investigating the existence and non-existence of (performable) behaviors first, which could then be quantitatively assessed so that the behaviors better match the shoppers and the mall.

Lastly, we would like to emphasize the technical limitation of this study. As normality could not be assumed and our data was of ordinal level, we wanted to be statistically correct in our methodological approach and therefore used non-parametric tests. The ranked inferential tests however have less explanatory power than the parametric alternatives. It soon became clear that in order to answer our research questions and corresponding hypotheses, we were forced to download the PROCESS macro syntax (v 3.1.4.) extension, to investigate non-parametric mediated and moderated relationships. As this was not part of our quantitative methods course, we invested a significant amount of time in understanding how to correctly perform the analysis and interpret the output. This made our study more complex, but statistically more robust.

7.4.2 Future Research

Our original intention was to advice INGKA Centres on how to stimulate pro-environmental lifestyles among shoppers in their malls and what they had to change to make this behavioral change happen. In an attempt to capture respondents visiting certain malls, we tried to target large urban areas in Sweden. A limitation of our study is that our respondents stated 61 different shopping malls, which we, due to the low levels of respondents per shopping mall, could not compare as intended. As no shopping mall is alike (Tunca & Anselmsson, 2019) and our results only imply general recommendations for shopping malls that can identify with our investigated shoppers, we have several suggestions for future research. As social consumption motivation showed to be insignificant, it would be interesting to investigate whether the underlying motives for being an environmentalist are personal identity or social identity related. Additionally, it would be interesting to compare a mall attracting the utilitarian seeking segment versus those looking for more hedonic experiences, as we expect this may have

differential effects on the extent to which they want to adopt certain behaviors and the extent to which they may want to conspicuously display pro-environmental behaviors to others. Additionally, it may be interesting to replicate our study researching a mall that has already adopted several pro-environmental behaviors against a mall that has not yet taken that step. Our results namely indicated that more pro-environmental behaviors are performable at Emporia in Malmö compared to Nova Lund in Lund.

Another limitation of the study is that although we investigated current pro-environmental behavior and behavioral intentions, we cannot say anything about how this relates to their overall consumption habits. We investigated how likely they are to adopt behaviors, but not to what extent, indicating the frequency or whether it would serve as a replacement for unsustainable options. This is a result of our decision for complexity reduction by making use of Likert Scales. The above may be better captured qualitatively. Even though we illuminated differences in shoppers' intent to perform certain pro-environmental behaviors, our cross-sectional design restricts us to make statements about which behavior may work as a catalyst and allow for spill-over effects on other behaviors (Truelove et al., 2014; Whitmarsh & O'Neill, 2010). We therewith suggest a longitudinal study design that captures the investigation of adoption of behaviors over time. Additionally, we believe social consumption motivation should be measured differently in the future. As we found insignificant results, we see the way this concept is measured as a limitation since it can capture consumption in terms of products and brands (Dermody et al., 2015, 2018; Fitzmaurice & Comegys, 2006), but not anti-consumption which would capture the social motivation of being perceived to be a good citizen much better. We call for an adjustment of this measure for future research in pro-environmental behaviors and sustainable lifestyle changes.

As discussed before, we were forced to limit the number of items per measured construct. Even though we found strong significant predicting effects of our construct "self-mall-congruence" on mall-loyalty, we pledge for further research that confirms our findings in other mall studies. Although not part of our study design, we pledge for the investigation of identity campaigning as pro-environmental self-identity happens to be such a strong predictor of behaviors. In the discussion, we furthermore highlighted the abstractness of social visibility. For future research, we suggest researching enhanced visibility by measuring social marketing and nudging techniques through an experimental study at the mall. One group could be exposed to certain prompts over a longer period of time, while another does not get this treatment. This would enable researchers to find possible differences in the adoption of pro-environmental behaviors by shoppers at a mall. In contemporary times, shaped by consumption but also social media and the digital world we deem it important to look at how the social visibility construct could not only work in brick-and-mortar environments but online. The use of social media could help consumers to make more or less invisible behaviors visible. It would be interesting to examine whether the digital enhancement of social visibility of pro-environmental behaviors would reward customers with the same status characteristics as discussed in our study.

References

- Abela, A. V. (2006). Marketing and Consumerism: A Response to O'Shaughnessy and O'Shaughnessy, *European Journal of Marketing*, vol. 40, no. 1/2, pp.5–16, Available Online: <https://www.emerald.com/insight/content/doi/10.1108/03090560610637284/full/html> [Accessed 21 March 2020]
- Abrahamse, W., Steg, L., Vlek, C. & Rothengatter, T. (2005). A Review of Intervention Studies Aimed at Household Energy Conservation, *Journal of Environmental Psychology*, vol. 25, no. 3, pp.273–291, Available Online: <https://linkinghub.elsevier.com/retrieve/pii/S027249440500054X> [Accessed 15 April 2020]
- Altman, I. & Zube, E. H. (1989). *Public Places and Spaces*, New York: Springer US
- Anselmsson, J. (2006). Sources of Customer Satisfaction with Shopping Malls: A Comparative Study of Different Customer Segments, *The International Review of Retail, Distribution and Consumer Research*, vol. 16, no. 1, pp.115–138, Available Online: <http://www.tandfonline.com/doi/abs/10.1080/09593960500453641> [Accessed 15 April 2020]
- Antonetti, P. & Maklan, S. (2014). Feelings That Make a Difference: How Guilt and Pride Convince Consumers of the Effectiveness of Sustainable Consumption Choices, *Journal of Business Ethics*, vol. 124, no. 1, pp.117–134, Accessible Online: <http://link.springer.com/10.1007/s10551-013-1841-9> [Accessed 27 April 2020]
- Argo, J. (2019). The Role of Identity Relevance in the Retail Environment, in *Handbook of Research on Identity Theory in Marketing*, [e-book] Edward Elgar Publishing, pp.404–416, Available Online: <https://www.elgaronline.com/view/edcoll/9781788117722/9781788117722.00040.xml> [Accessed 19 May 2020]
- Arnould, E. J. & Thompson, C. J. (2018). *Consumer Culture Theory*, SAGE Publications
- Aspara, J., Luo, X. & Dhar, R. (2017). Effect of Intelligence on Consumers' Responsiveness to a pro-Environmental Tax: Evidence from Large-Scale Data on Car Acquisitions of Male Consumers, *Journal of Consumer Psychology*, vol. 27, no. 4, pp.448–455, Available Online: <https://onlinelibrary.wiley.com/doi/abs/10.1016/j.jcps.2017.03.002> [Accessed 12 March 2020]
- Bäckström, K. (2011). "Shopping as Leisure: An Exploration of Manifoldness and Dynamics in Consumers Shopping Experiences", *Journal of Retailing and Consumer Services*, vol. 18, no. 3, pp.200–209
- Bah, S. (2001). Discovering Statistics Using SPSS for Windows: Advanced Techniques for Beginners by A. Field, *Journal of the Royal Statistical Society. Series D (The Statistician)*, vol. 50, pp.551–552

- Balderjahn, I., Peyer, M., Seegebarth, B., Wiedmann, K.-P. & Weber, A. (2018). The Many Faces of Sustainability-Conscious Consumers: A Category-Independent Typology, *Journal of Business Research*, vol. 91, pp.83–93, Available Online: <https://linkinghub.elsevier.com/retrieve/pii/S0148296318302583> [Accessed 3 April 2020]
- Baumeister, R. F., Tice, D. M. & Hutton, D. G. (1989). Self-Presentational Motivations and Personality Differences in Self-Esteem, *Journal of Personality*, vol. 57, no. 3, pp.547–579
- Bearden, W. O. (1977). Determinant Attributes of Store Patronage: Downtown Versus Outlying Shopping Centers, *Journal of Retailing*, vol. 53, no. 2, p.15
- Behling, O. & Law, K. S. (2000). *Translating Questionnaires and Other Research Instruments*, Thousand Oaks, California: SAGE Publications
- Belk, R. W. (1988). Possessions and the Extended Self, *Journal of Consumer Research*, vol. 15, no. 2, pp.139–168, Available Online: <https://academic.oup.com/jcr/article/15/2/139/1841428> [Accessed 28 January 2020]
- Bertilsson, J. (2015). The Cynicism of Consumer Morality, *Consumption Markets & Culture*, vol. 18, no. 5, pp.447–467, Available Online: <https://www.tandfonline.com/doi/full/10.1080/10253866.2015.1038255> [Accessed 20 March 2020]
- Bertilsson, J. (2017). Consumer-Brand Relationships, in *Brand Theories: Perspective on Brands and Branding*, Lund: Studentlitteratur AB, pp.165–185
- Bethlehem, J. (2010). Selection Bias in Web Surveys: Selection Bias in Web Surveys, *International Statistical Review*, vol. 78, no. 2, pp.161–188
- Bhattacharjee, A., Berger, J. & Menon, G. (2014). When Identity Marketing Backfires: Consumer Agency in Identity Expression, *Journal of Consumer Research*, vol. 41, no. 2, pp.294–309
- Bhattacharya, C. B. & Sen, S. (2003). Consumer–Company Identification: A Framework for Understanding Consumers’ Relationships with Companies, *Journal of Marketing*, vol. 67, no. 2, pp.76–88 Available Online: <http://journals.sagepub.com/doi/10.1509/jmkg.67.2.76.18609> [Accessed 22 March 2020]
- Binkley, S. (2008). LIQUID CONSUMPTION: Anti-Consumerism and the Fetishized de-Fetishization of Commodities, *Cultural Studies*, vol. 22, no. 5, pp.599–623
- Bliege Bird, R. & Smith, E. A. (2005). Signaling Theory, Strategic Interaction, and Symbolic Capital, *Current Anthropology*, vol. 46, no. 2, pp.221–248
- Bloch, P. H., Ridgway, N. M. & Dawson, S. A. (1994). The Shopping Mall as Consumer Habitat, *Journal of Retailing*, vol. 70, no. 1, pp.23–42, Available Online: <http://www.sciencedirect.com/science/article/pii/0022435994900264> [Accessed 1 April 2020]

- Bray, J., Johns, N. & Kilburn, D. (2011). An Exploratory Study into the Factors Impeding Ethical Consumption, *Journal of Business Ethics*, vol. 98, no. 4, pp.597–608
- Brick, C., Sherman, D. K. & Kim, H. S. (2017). “Green to Be Seen” and “Brown to Keep down”: Visibility Moderates the Effect of Identity on pro-Environmental Behavior, *Journal of Environmental Psychology*, vol. 51, pp.226–238, Available Online: <https://linkinghub.elsevier.com/retrieve/pii/S0272494417300543> [Accessed 23 February 2020]
- Bryman, A. & Bell, E. (2015). *Business Research Methods*, 4th edn, Oxford, United Kingdom: Oxford University Press
- Burke, P. J. (1980). The Self: Measurement Requirements from an Interactionist Perspective, *Social Psychology Quarterly*, vol. 43, no. 1, pp.18–29
- Burns, R. B. & Burns, R. A. (2008). *Business Research Methods and Statistics Using SPSS*, Los Angeles ; London: SAGE Publications
- Calvo-Porrá, C. & Lévy-Mangín, J.-P. (2018). Pull Factors of the Shopping Malls: An Empirical Study, *International Journal of Retail & Distribution Management*, vol. 46, no. 2, pp.110–124
- Carlsson-Kanyama, A., Pipping Ekström, M. & Shanahan, H. (2002). Urban Households and Consumption Related Resource-Use, in *Changes at the Other End of the Chain; Everyday Consumption in a Multidisciplinary Perspective*, [e-book] Maastricht, The Netherlands: Shaker Publishing, pp.317–326, Available Online: <https://edepot.wur.nl/320684> [Accessed 12 March 2020]
- Charng, H.-W., Piliavin, J. A. & Callero, P. L. (1988). Role Identity and Reasoned Action in the Prediction of Repeated Behavior, *Social Psychology Quarterly*, vol. 51, no. 4, pp.303–317, Available Online: <http://www.jstor.org/stable/2786758?origin=crossref> [Accessed 3 February 2020]
- Chebat, J.-C., Sirgy, M. J. & St-James, V. (2006). Upscale Image Transfer from Malls to Stores: A Self-Image Congruence Explanation, *Journal of Business Research*, vol. 59, no. 12, pp.1288–1296, Available Online: <https://linkinghub.elsevier.com/retrieve/pii/S0148296306001305> [Accessed 18 March 2020]
- Christensen, P. N., Rothgerber, H., Wood, W. & Matz, D. C. (2004). Social Norms and Identity Relevance: A Motivational Approach to Normative Behavior, *Personality and Social Psychology Bulletin*, vol. 30, no. 10, pp.1295–1309
- Cialdini, R. B. (2003). Crafting Normative Messages to Protect the Environment, *Current Directions in Psychological Science*, vol. 12, no. 4, pp.105–109
- Cialdini, R. B. & Goldstein, N. J. (2004). Social Influence: Compliance and Conformity, *Annual Review of Psychology*, vol. 55, no. 1, pp.591–621
- Collins, H. M. (1983). The Sociology of Scientific Knowledge: Studies of Contemporary Science, *Annual Review of Sociology*, vol. 9, pp.265–285

- Cook, S. D. N. & Brown, J. S. (1999). Bridging Epistemologies: The Generative Dance Between Organizational Knowledge and Organizational Knowing, *Organization Science*, vol. 10, no. 4, pp.381–400
- Costa Pinto, D., Nique, W. M., Maurer Herter, M. & Borges, A. (2016). Green Consumers and Their Identities: How Identities Change the Motivation for Green Consumption, *International Journal of Consumer Studies*, vol. 40, no. 6, pp.742–753
- Cova, B. (1997). Community and Consumption: Towards a Definition of the “Linking Value” of Product or Services, *European Journal of Marketing*, vol. 31, no. 3/4, pp.297–316
- Cunliffe, A. L. (2001). Managers as Practical Authors: Reconstructing Our Understanding of Management Practice, *Journal of Management Studies*, vol. 38, no. 3, pp.351–371
- De Nardo, M., Brooks, J. S., Klinsky, S. & Wilson, C. (2017). Social Signals and Sustainability: Ambiguity about Motivations Can Affect Status Perceptions of Efficiency and Curtailment Behaviors, *Environment Systems and Decisions*, vol. 37, no. 2, pp.184–197, Available Online: <http://link.springer.com/10.1007/s10669-017-9624-y> [Accessed 10 February 2020]
- Delgado, M. S., Harriger, J. L. & Khanna, N. (2015). The Value of Environmental Status Signaling, *Ecological Economics*, vol. 111, pp.1–11
- Dermody, J., Hanmer-Lloyd, S., Koenig-Lewis, N. & Zhao, A. L. (2015). Advancing Sustainable Consumption in the UK and China: The Mediating Effect of pro-Environmental Self-Identity, *Journal of Marketing Management*, vol. 31, no. 13–14, pp.1472–1502, Available Online: <https://doi.org/10.1080/0267257X.2015.1061039> [Accessed 21 February 2020]
- Dermody, J., Koenig-Lewis, N., Zhao, A. L. & Hanmer-Lloyd, S. (2018). Appraising the Influence of Pro-Environmental Self-Identity on Sustainable Consumption Buying and Curtailment in Emerging Markets: Evidence from China and Poland, *Journal of Business Research*, vol. 86, pp.333–343, Available Online: <http://www.sciencedirect.com/science/article/pii/S0148296317303594> [Accessed 21 February 2020]
- Dhar, R. & Wertenbroch, K. (2012). Self-Signaling and the Costs and Benefits of Temptation in Consumer Choice, *Journal of Marketing Research*, vol. 49, no. 1, pp.15–25
- Dickinson, J. L. (2009). The People Paradox: Self-Esteem Striving, Immortality Ideologies, and Human Response to Climate Change, *Ecology and Society*, vol. 14, no.1, pp.1–17
- Downs, R. M. (1970). The Cognitive Structure of an Urban Shopping Center, *Environment and Behavior*, vol. 2, no. 1, pp.13–39
- Dutton, J. E. & Dukerich, J. M. (1991). Keeping an Eye on the Mirror: Image and Identity in Organizational Adaptation, *Academy of Management Journal*, vol. 34, no. 3, pp.517–554
- Eagly, A. H. (2009). The His and Hers of Prosocial Behavior: An Examination of the Social Psychology of Gender, *American Psychologist*, p.15

- Easterby-Smith, M., Thorpe, R. & Jackson, P. (2015). *Management and Business Research*, 5th edition., Los Angeles: SAGE Publications
- Easterby-Smith, M., Thorpe, T., Jackson, P. R. & Jaspersen, L. J. (2018). *Management and Business Research*, 6th edn, London: SAGE Publications
- El Hedhli, K., Chebat, J.-C. & Sirgy, M. J. (2013). Shopping Well-Being at the Mall: Construct, Antecedents, and Consequences, *Journal of Business Research*, vol. 66, no. 7, pp.856–863, Available Online: <https://linkinghub.elsevier.com/retrieve/pii/S0148296311001986> [Accessed 17 March 2020]
- El-Adly, M. I. & Eid, R. (2015). Measuring the Perceived Value of Malls in a Non-Western Context: The Case of the UAE, *International Journal of Retail & Distribution Management*, vol. 43, no. 9, pp.849–869
- Elg, U. & Hultman, J. (2016). CSR: Retailer Activities vs Consumer Buying Decisions, *International Journal of Retail & Distribution Management*, vol. 44, no. 6, pp.640–657
- Elliott, R. (2013). The Taste for Green: The Possibilities and Dynamics of Status Differentiation through “Green” Consumption, *Poetics*, vol. 41, no. 3, pp.294–322
- Escalas, J. E. & Bettman, J. R. (2003). You Are What They Eat: The Influence of Reference Groups on Consumers’ Connections to Brands, *Journal of Consumer Psychology*, vol. 13, no. 3, pp.339–348, Available Online: http://doi.wiley.com/10.1207/S15327663JCP1303_14 [Accessed 15 March 2020]
- Escalas, J. E., Gallo, I. & Gaustad, T. (2019). Reminiscing on Self Brand Connections: Differentiating Experiential versus Symbolic Origins, in *Handbook of Research on Identity Theory in Marketing*, [e-book] Edward Elgar Publishing, pp.125–140, Available Online: <https://www.elgaronline.com/view/edcoll/9781788117722/9781788117722.00018.xml> [Accessed 29 April 2020]
- Evans, J. D. (1996). *Straightforward Statistics for the Behavioral Sciences*, Pacific Grove: Brooks/Cole Pub. Co
- Feinberg, R. A., Sheffler, B., Meoli, J. & Rummel, A. (1989). There’s Something Social Happening at the Mall, *Journal of Business and Psychology*, vol. 4, no. 1, pp.49–63
- Feygina, I., Jost, J. T. & Goldsmith, R. E. (2010). System Justification, the Denial of Global Warming, and the Possibility of “System-Sanctioned Change”, *Personality and Social Psychology Bulletin*, vol. 36, no. 3, pp.326–338
- Finger, M. (1994). From Knowledge to Action? Exploring the Relationships Between Environmental Experiences, Learning, and Behavior, *Journal of Social Issues*, vol. 50, no. 3, pp.141–160
- Firat, A. F. & Venkatesh, A. (1995). Liberatory Postmodernism and the Reenchantment of Consumption, *Journal of Consumer Research*, vol. 22, no. 3, p.239

- Fitzmaurice, J. & Comegys, C. (2006). Materialism and Social Consumption, *Journal of Marketing Theory and Practice*, vol. 14, no. 4, pp.287–299, Available Online: <https://www.tandfonline.com/doi/full/10.2753/MTP1069-6679140403> [Accessed 3 March 2020]
- Francis, J., Giles-Corti, B., Wood, L. & Knuiiman, M. (2012). Creating Sense of Community: The Role of Public Space, *Journal of Environmental Psychology*, vol. 32, no. 4, pp.401–409
- Gabriel, Y. & Lang, T. (2006). *The Unmanageable Consumer*, 2nd edn, London: SAGE Publications
- Gatersleben, B., Murtagh, N. & Abrahamse, W. (2014). Values, Identity and pro-Environmental Behaviour, *Contemporary Social Science*, vol. 9, no. 4, pp.374–392, Available Online: <https://rsa.tandfonline.com/doi/full/10.1080/21582041.2012.682086> [Accessed 8 March 200]
- Geller, E. S. (1981). Evaluating Energy Conservation Programs: Is Verbal Report Enough?, *Journal of Consumer Research*, vol. 8, no. 3, pp.331–335
- Giebelhausen, M., Chun, H. H., Cronin, J. J. & Hult, G. T. M. (2016). Adjusting the Warm-Glow Thermostat: How Incentivizing Participation in Voluntary Green Programs Moderates Their Impact on Service Satisfaction, *Journal of Marketing*, vol. 80, no. 4, pp.56–71
- Gifford, R. & Nilsson, A. (2014). Personal and Social Factors That Influence Pro-Environmental Concern and Behaviour: A Review, *International Journal of Psychology*, vol. 49, no. 3, pp.141–157
- Gilg, A., Barr, S. & Ford, N. (2005). Green Consumption or Sustainable Lifestyles? Identifying the Sustainable Consumer, *Futures*, vol. 37, pp.481–504
- Gleim, M. R., Smith, J. S., Andrews, D. & Cronin, J. J. (2013). Against the Green: A Multi-Method Examination of the Barriers to Green Consumption, *Journal of Retailing*, vol. 89, no. 1, pp.44–61
- Granzin, K. L. & Olsen, J. E. (1991). Characterizing Participants in Activities Protecting the Environment: A Focus on Donating, Recycling, and Conservation Behaviors, *Journal of Public Policy & Marketing*, vol. 10, no. 2, pp.1–27
- Green, T. & Pelozo, J. (2014). Finding the Right Shade of Green: The Effect of Advertising Appeal Type on Environmentally Friendly Consumption, *Journal of Advertising*, vol. 43, no. 2, pp.128–141
- Greening, L. A., Greene, D. L. & Di, C. (2000). Energy Efficiency and Consumption - the Rebound Effect - a Survey, *Energy Policy*, vol. 28, pp.389–401

- Griskevicius, V., Tybur, J. M. & Van den Bergh, B. (2010). Going Green to Be Seen: Status, Reputation, and Conspicuous Conservation, *Journal of Personality and Social Psychology*, vol. 98, no. 3, pp.392–404, Available Online: <http://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=pdh&AN=2010-02829-004&site=eds-live&scope=site> [Accessed 17 January 2020]
- Gupta, S. & Ogden, D. T. (2009). To Buy or Not to Buy? A Social Dilemma Perspective on Green Buying, *Journal of Consumer Marketing*, vol. 26, no. 6, pp.376–391, Available Online: <https://www.emerald.com/insight/content/doi/10.1108/07363760910988201/full/html> [Accessed 20 March 2020]
- Ha, S. & Im, H. (2012). Identifying the Role of Self-Congruence on Shopping Behavior in the Context of U.S. Shopping Malls, *Clothing and Textiles Research Journal*, vol. 30, no. 2, pp.87–101
- Hammad, H., Muster, V., El-Bassiouny, N. M. & Schaefer, M. (2019). Status and Sustainability: Can Conspicuous Motives Foster Sustainable Consumption in Newly Industrialized Countries?, *Journal of Fashion Marketing and Management: An International Journal*, vol. 23, no. 4, pp.537–550
- Hampl, N. & Loock, M. (2013). Sustainable Development in Retailing: What Is the Impact on Store Choice?, *Business Strategy & the Environment (John Wiley & Sons, Inc)*, vol. 22, no. 3, pp.202–216
- Hansen, U. & Schrader, U. (1997). A Modern Model of Consumption for a Sustainable Society, *Journal of Consumer Policy*, vol. 20, no. 4, pp.443–468
- Hardisty, D. J., Johnson, E. J. & Weber, E. U. (2010). A Dirty Word or a Dirty World?: Attribute Framing, Political Affiliation, and Query Theory, *Psychological Science*, vol. 21, no. 1, pp.86–92
- Harkness, J., Pennell, B.-E. & Schoua-Glusberg, A. (2004). Survey Questionnaire Translation and Assessment, in *Methods for Testing and Evaluating Survey Questionnaires*, Hoboken, New Jersey: John Wiley & Sons, pp.453–473
- Hayes, A. F. (2013). Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach, 2nd edn, New York: Guilford
- Hogg, M. A., Terry, D. J. & White, K. M. (1995). A Tale of Two Theories: A Critical Comparison of Identity Theory with Social Identity Theory, *Social Psychology Quarterly*, vol. 58, no. 4, p.255
- Hogg, R., Tanis, E. & Zimmerman, D. (2015). Probability and Statistical Inference, 9th edn, Iowa: Pearson
- Horne, R. E. (2009). Limits to Labels: The Role of Eco-Labels in the Assessment of Product Sustainability and Routes to Sustainable Consumption, *International Journal of Consumer Studies*, vol. 33, no. 2, pp.175–182

- Isenhour, C. (2010). On Conflicted Swedish Consumers, the Effort to Stop Shopping and Neoliberal Environmental Governance, *Journal of Consumer Behaviour*, vol. 9, no. 6, pp.454–469, Available Online: <http://doi.wiley.com/10.1002/cb.336> [Accessed 3 April 2020]
- Johansson-Stenman, O. & Martinsson, P. (2006). Honestly, Why Are You Driving a BMW?, *Journal of Economic Behavior & Organization*, vol. 60, no. 2, pp.129–146
- Jones, P., Clarke-Hill, C., Comfort, D. & Hillier, D. (2008). Marketing and Sustainability, *Marketing Intelligence & Planning*, vol. 26, no. 2, pp.123–130
- Jones, P., Hillier, D., Comfort, D. & Eastwood, I. (2005). Sustainable Retailing and Consumerism, *Management Research News*, vol. 28, no. 1, pp.34–44
- Kesari, B. & Atulkar, S. (2016). Satisfaction of Mall Shoppers: A Study on Perceived Utilitarian and Hedonic Shopping Values, *Journal of Retailing and Consumer Services*, vol. 31, pp.22–31
- Kettle, K. L. (2019). Identity Salience: Understanding When Identity Affects Consumption, in *Handbook of Research on Identity Theory in Marketing*, [e-book] Edward Elgar Publishing, pp.30–43, Available Online: <https://www.elgaronline.com/view/edcoll/9781788117722/9781788117722.00010.xml> [Accessed 17 April 2020]
- Kim, J. W., Lee, F. & Suh, Y. G. (2015). Satisfaction and Loyalty From Shopping Mall Experience and Brand Personality, *Services Marketing Quarterly*, vol. 36, no. 1, pp.62–76
- Kotler, P. & Zaltman, G. (1971). Social Marketing: An Approach to Planned Social Change, *Journal of Marketing*, vol. 35, pp.3–12
- Kronrod, A., Grinstein, A. & Wathieu, L. (2012). Go Green! Should Environmental Messages Be So Assertive?, *Journal of Marketing*, vol. 76, no. 1, pp.95–102
- Lauren, N., Fielding, K. S., Smith, L. & Louis, W. R. (2016). You Did, so You Can and You Will: Self-Efficacy as a Mediator of Spillover from Easy to More Difficult pro-Environmental Behaviour, *Journal of Environmental Psychology*, vol. 48, pp.191–199
- Lee, M. S. W., Fernandez, K. V. & Hyman, M. R. (2009). Anti-Consumption: An Overview and Research Agenda, *Journal of Business Research*, vol. 62, no. 2, pp.145–147
- Lehner, M., Mont, O. & Heiskanen, E. (2016). Nudging – A Promising Tool for Sustainable Consumption Behaviour?, *Journal of Cleaner Production*, vol. 134, pp.166–177
- Levy, M. & Weitz, B. A. (2006). Retailing Management, 6th edn, New York: McGraw-Hill
- Lidskog, R. & Elander, I. (2012). Ecological Modernization in Practice? The Case of Sustainable Development in Sweden, *Journal of Environmental Policy & Planning*, vol. 14, no. 4, pp.411–427

- Ludwig, T. D., Gray, T. W. & Rowell, A. (1998). Increasing Recycling in Academic Buildings: A Systematic Replication, *Journal of Applied Behavior Analysis*, vol. 31, no. 4, pp.683–686
- Luomala, H., Puska, P., Lähdesmäki, M., Siltaoja, M. & Kurki, S. (2020). Get Some Respect – Buy Organic Foods! When Everyday Consumer Choices Serve as Prosocial Status Signaling, *Appetite*, vol. 145, Available Online: <http://www.sciencedirect.com/science/article/pii/S0195666318318063> [Accessed 10 April 2020]
- MacKay, D. J. (2009). *Sustainable Energy - Without the Hot Air*, Cambridge: UIT Cambridge Ltd
- Mannetti, L., Pierro, A. & Livi, S. (2004). Recycling: Planned and Self-Expressive Behaviour, *Journal of Environmental Psychology*, vol. 24, no. 2, pp.227–236
- Marañón, A. (2020a). Lecture 1: Introduction Business Research Process, STAR04, powerpoint presentation, LUSEM Lund, 15 January 2020
- Marañón, A. (2020b). Lecture 2: Sampling and Data Collection, STAR04, powerpoint presentation, LUSEM Lund, 22 January 2020
- Mazursky, D. & Jacoby, J. (1986). Exploring the Development of Store Images, *Journal of Retailing*, vol. 62, no. 2, p.145–165
- McCracken, G. (1986). Culture and Consumption: A Theoretical Account of the Structure and Movement of the Cultural Meaning of Consumer Goods, *Journal of Consumer Research*, vol. 13, no. 1, p.71–84
- McKenzie-Mohr, D. (2000). Promoting Sustainable Behavior: An Introduction to Community-Based Social Marketing, vol. 56, no. 3, pp.543–554 Available Online: https://web.stanford.edu/~kcarmel/CC_BehavChange_Course/readings/Mckenzie_socialmarket_2000.pdf [Accessed 20 April 2020]
- Mehta, V. (2013). *The Street: A Quintessential Social Public Space*, New York: Routledge
- Merrilees, B., Miller, D. & Shao, W. (2016). Mall Brand Meaning: An Experiential Branding Perspective, *Journal of Product & Brand Management*, vol. 25, no. 3, pp.262–273
- Miller, D. T. & Ross, M. (1975). Self-Serving Biases in the Attribution of Causality: Fact or Fiction?, *Psychological Bulletin*, vol. 82, no. 2, pp.213–225
- Millet, K. & Dewitte, S. (2007). Altruistic Behavior as a Costly Signal of General Intelligence, *Journal of Research in Personality*, vol. 41, no. 2, pp.316–326
- Mohammad Shafiee, M. & Es-Haghi, S. M. S. (2017). Mall Image, Shopping Well-Being and Mall Loyalty, *International Journal of Retail & Distribution Management*, [e-journal] vol. 10, no. 45, Available Online: <https://www.ssrn.com/abstract=3185725> [Accessed 24 April 2020]
- Moschis, G. P. (1981). Patterns of Consumer Learning, *Journal of the Academy of Marketing Science*, vol. 9, no. 2, pp.110–126

- Moser, A. K. (2015). Thinking Green, Buying Green? Drivers of pro-Environmental Purchasing Behavior, *Journal of Consumer Marketing*, vol. 32, no. 3, pp.167–175
- Murtagh, N., Gatersleben, B., Cowen, L. & Uzzell, D. (2015). Does Perception of Automation Undermine Pro-Environmental Behaviour? Findings from Three Everyday Settings, *Journal of Environmental Psychology*, vol. 42, pp.139–148
- Myrorna Secondhand. (2020). *Ants Second Hand Shop in Emporia Mall*, Available Online: <https://www.myrorna.se/butiker/malmo/malmo-emporia/> [Accessed 7 March 2020]
- Nasution, A. D. & Zahrah, W. (2012). Public Open Space Privatization and Quality of Life, Case Study Merdeka Square Medan, *Procedia - Social and Behavioral Sciences*, vol. 36, pp.466–475
- Nelissen, R. M. A. & Meijers, M. H. C. (2011). Social Benefits of Luxury Brands as Costly Signals of Wealth and Status, *Evolution and Human Behavior*, vol. 32, no. 5, pp.343–355
- Nettle, D., Harper, Z., Kidson, A., Stone, R., Penton-Voak, I. S. & Bateson, M. (2013). The Watching Eyes Effect in the Dictator Game: It's Not How Much You Give, It's Being Seen to Give Something, *Evolution and Human Behavior*, vol. 34, no. 1, pp.35–40
- Nolan, J. M., Schultz, P. W., Cialdini, R. B., Goldstein, N. J. & Griskevicius, V. (2008). Normative Social Influence Is Underdetected, *Personality and Social Psychology Bulletin*, vol. 34, no. 7, pp.913–923
- O'Cass, A. & Grace, D. (2008). Understanding the Role of Retail Store Service in Light of Self-Image–Store Image Congruence, *Psychology & Marketing*, vol. 25, no. 6, pp.521–537
- Ogle, J. P., Hyllegard, K. H. & Dunbar, B. H. (2004). Predicting Patronage Behaviors in a Sustainable Retail Environment: Adding Retail Characteristics and Consumer Lifestyle Orientation to the Belief-Attitude-Behavior Intention Model, *Environment and Behavior*, vol. 36, no. 5, pp.717–741
- Ogle, J. P., Hyllegard, K. H. & Dunbar, B. H. (2016). Predicting Patronage Behaviors in a Sustainable Retail Environment: Adding Retail Characteristics and Consumer Lifestyle Orientation to the Belief-Attitude-Behavior Intention Model, *Environment and Behavior*, vol. 36, no. 5, pp.717–741, Available Online: <https://journals-sagepub-com.ludwig.lub.lu.se/doi/10.1177/0013916504265442> [Accessed 28 February 2020].
- Oldenburg, R. (1999). *The Great Good Place*, 3rd edn, [e-book] New York: Marlowe & Company, Available Online: https://canvas.harvard.edu/files/1085417/download?download_frd=1&verifier=o9y8EiLcwZDn7VUMVsmwE4m4yvS1Arlxut85ghjp [Accessed 2 April 2020]
- O'Neill, S. & Nicholson-Cole, S. (2009). “Fear Won’t Do It”: Promoting Positive Engagement With Climate Change Through Visual and Iconic Representations, *Science Communication*, vol. 30, no. 3, pp.355–379

- Ortegón-Cortázar, L. & Royo-Vela, M. (2017). Attraction Factors of Shopping Centers: Effects of Design and Eco-Natural Environment on Intention to Visit, *European Journal of Management and Business Economics*, vol. 26, no. 2, pp.199–219
- Ortuño Padilla, A., Hermosilla, A. & Ozores, O. (2017). The Impact of Out-of-Town Shopping Centres on Town-Centre Retailers and Employment: The Case of the Region of Murcia, *Land Use Policy*, vol. 65, pp.277–286
- Osbaldiston, R. & Schott, J. P. (2012). Environmental Sustainability and Behavioral Science: Meta-Analysis of Proenvironmental Behavior Experiments, *Environment and Behavior*, vol. 44, no. 2, pp.257–299
- Paul, J., Modi, A. & Patel, J. (2016). Predicting Green Product Consumption Using Theory of Planned Behavior and Reasoned Action, *Journal of Retailing and Consumer Services*, vol. 29, pp.123–134
- Peattie, K. & Peattie, S. (2009). Social Marketing: A Pathway to Consumption Reduction?, *Journal of Business Research*, vol. 62, no. 2, pp.260–268, Available Online: <https://linkinghub.elsevier.com/retrieve/pii/S0148296308000489> [Accessed 24 April 2020]
- Peloza, J., White, K. & Shang, J. (2013). Good and Guilt-Free: The Role of Self-Accountability in Influencing Preferences for Products with Ethical Attributes, *Journal of Marketing*, vol. 77, no. 1, pp.104–119
- Reed, A., Forehand, Mark, Puntoni, Stefano & Warlop, Luke. (2012). Identity-Based Consumer Behavior, *International Journal of Research in Marketing*, vol. 29(4), pp.310–321
- Reed II, A. & Forehand, M. (2019). Introduction: The Long and Winding Road to Understanding Identity Theory and Marketing, in *Handbook of Research on Identity Theory in Marketing*, [e-book] Edward Elgar Publishing, Available Online: <https://www.elgaronline.com/view/edcoll/9781788117722/9781788117722.00007.xml> [Accessed 4 May 2020]
- Retail Guide Sweden. (2019). Retail Guide Sweden 2019/2020 - Stockholm, Gothenburg, Malmö, Available Online: <https://static1.squarespace.com/static/59f3ab94692ebe762891c3f5/t/5df4e33e9cc32e3e13ea879c/1576330209860/Retail-Guide-Sweden-14112019.pdf> [Accessed 17 April 2020]
- Rettie, R., Burchell, K. & Riley, D. (2012). Normalising Green Behaviours: A New Approach to Sustainability Marketing, *Journal of Marketing Management*, vol. 28, no. 3–4, pp.420–444
- Reynolds, N., Diamantopoulos, A. & Schlegelmilch, B. (1993). Pre-Testing in Questionnaire Design: A Review of the Literature and Suggestions for Further Research, *Market Research Society Journal*, vol. 35, no. 2, pp.1–11
- Richins, M. L. & Dawson, S. (1992). A Consumer Values Orientation for Materialism and Its Measurement: Scale Development and Validation, *Journal of Consumer Research*, vol. 19, no. 3, p.303-316, Available Online:

<http://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.2489391&site=eds-live&scope=site> [Accessed 10 April 2020]

- Roberts, J. A. (1996). Green Consumers in the 1990s: Profile and Implications for Advertising, *Journal of Business Research*, vol. 36, no. 3, pp.217–231
- Saunders, M. N. K., Lewis, P. & Thornhill, A. (2009). Research Methods for Business Students, 5th edn, New York: Prentice Hall
- Schuitema, G. & Groot, J. I. M. de. (2015). Green Consumerism: The Influence of Product Attributes and Values on Purchasing Intentions, *Journal of Consumer Behaviour*, vol. 14, no. 1, pp.57–69
- Schultz, P. W., Oskamp, S. & Mainieri, T. (1995). Who Recycles and When? A Review of Personal and Situational Factors, *Journal of Environmental Psychology*, vol. 15, no. 2, pp.105–121
- Sexton, S. E. & Sexton, A. L. (2014). Conspicuous Conservation: The Prius Halo and Willingness to Pay for Environmental Bona Fides, *Journal of Environmental Economics and Management*, vol. 67, no. 3, pp.303–317
- Shaughnessy, J. J., Zechmeister, E. B. & Zechmeister, J. S. (2012). Research Methods in Psychology, 9th ed., New York: McGraw-Hill
- Shaw, D. & Shiu, E. (2002a). The Role of Ethical Obligation and Self-Identity in Ethical Consumer Choice, *International Journal of Consumer Studies*, vol. 26, no. 2, pp.109–116, Available Online: <https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1470-6431.2002.00214.x> [Accessed 13 March 2020]
- Shaw, D. & Shiu, E. (2002b). An Assessment of Ethical Obligation and Self-Identity in Ethical Consumer Decision-Making: A Structural Equation Modelling Approach, *International Journal of Consumer Studies*, vol. 26, no. 4, pp.286–293
- Shaw, D., Shiu, E. & Clarke, I. (2000). The Contribution of Ethical Obligation and Self-Identity to the Theory of Planned Behaviour: An Exploration of Ethical Consumers, *Journal of Marketing Management*, vol. 16, no. 8, pp.879–894
- Sheeran, P., Trafimow, D. & Armitage, C. J. (2003). Predicting Behaviour from Perceived Behavioural Control: Tests of the Accuracy Assumption of the Theory of Planned Behaviour, *British Journal of Social Psychology*, vol. 42, no. 3, pp.393–410
- Sheth, J. N. & Parvatiyar, A. (1995). Ecological Imperatives and the Role of Marketing, in *Environmental Marketing: Strategies, Practice, Theory and Research*, New York: Haworth Press, pp.3–20
- Makgopa, S. S. (2018). Determining Shopping Malls Customers' Satisfaction and Loyalty, *Journal of Business & Retail Management Research*, vol. 13, no. 1, pp.121–130, Available Online: <http://jbrmr.com/details&cid=415> [Accessed 24 April 2020]
- Sirgy, M. J. (1985). Using Self-Congruity and Ideal Congruity to Predict Purchase Motivation, *Journal of Business Research*, vol. 13, no. 3, pp.195–206

- Soron, D. (2010). Sustainability, Self-Identity and the Sociology of Consumption, *Sustainable Development*, vol. 18, no. 3, pp.172–181
- Sparks, P. & Shepherd, R. (1992). Self-Identity and the Theory of Planned Behavior: Assessing the Role of Identification with ‘Green Consumerism’, *Social Psychology Quarterly*, vol. 55, no. 4, pp.388–399.
- Stål, H. I. & Jansson, J. (2017a). Sustainable Consumption and Value Propositions: Exploring Product–Service System Practices Among Swedish Fashion Firms, *Sustainable Development*, vol. 25, no. 6, pp.546–558, Available Online: <http://doi.wiley.com/10.1002/sd.1677> [Accessed 28 February 2020]
- Stål, H. I. & Jansson, J. (2017b). Sustainable Consumption and Value Propositions: Exploring Product-Service System Practices Among Swedish Fashion Firms: Sustainable Consumption and Value Propositions, *Sustainable Development*, vol. 25, no. 6, pp.546–558
- Stearns, P. N. (2006). *Consumerism in World History: The Global Transformation of Desire*, Second edition., London ; New York: Routledge, Taylor & Francis Group
- Steenhaut, S. & Van Kenhove, P. (2006). The Mediating Role of Anticipated Guilt in Consumers’ Ethical Decision-Making, *Journal of Business Ethics*, vol. 69, no. 3, pp.269–288
- Steg, L. & Vlek, C. (2009). Encouraging Pro-Environmental Behaviour: An Integrative Review and Research Agenda, *Journal of Environmental Psychology*, vol. 29, no. 3, pp.309–317
- Sunstein, C. R. & Reisch, L. A. (2013). Green by Default: Green By Default, *Kyklos*, vol. 66, no. 3, pp.398–402
- Swinyard, W. R. (1998). Shopping Mall Customer Values: The National Mall Shopper and the List of Values, *Journal of Retailing and Consumer Services*, vol. 5, no. 3, pp.167–172
- Taber, K. S. (2018). The Use of Cronbach’s Alpha When Developing and Reporting Research Instruments in Science Education, *Research in Science Education*, vol. 48, no. 6, pp.1273–1296
- Tajfel, H. & Turner, J. C. (1979). An Integrative Theory of Intergroup Conflict, in *The Social Psychology of Intergroup Relations*, Monterey: Brooks-Cole, pp.33–47
- Teller, C. (2008). Shopping Streets versus Shopping Malls – Determinants of Agglomeration Format Attractiveness from the Consumers’ Point of View, *The International Review of Retail, Distribution and Consumer Research*, vol. 18, no. 4, pp.381–403, Available Online: <https://www.tandfonline.com/doi/full/10.1080/09593960802299452> [Accessed 5 March 2020]
- Terry, D. J., Hogg, M. A. & White, K. M. (1999). The Theory of Planned Behaviour: Self-Identity, Social Identity and Group Norms, *British Journal of Social Psychology*, vol. 38, no. 3, pp.225–244

- Thaler, R. & Sunstein, C. R. (2009). *Nudge: Improving Decisions About Health, Wealth and Happiness*, Penguin Books
- Theotokis, A. & Manganari, E. (2015). The Impact of Choice Architecture on Sustainable Consumer Behavior: The Role of Guilt, *Journal of Business Ethics*, vol. 131, no. 2, pp.423–437
- Trigg, A. B. (2001). Veblen, Bourdieu, and Conspicuous Consumption, *Journal of Economic Issues*, vol. 35, no. 1, pp.99–115
- Trudel, R., Argo, J. J. & Meng, M. D. (2016). The Recycled Self: Consumers' Disposal Decisions of Identity-Linked Products, *Journal of Consumer Research*, vol. 43, no. 2, pp.246–264
- Truelove, H. B., Carrico, A. R., Weber, E. U., Raimi, K. T. & Vandenberg, M. P. (2014). Positive and Negative Spillover of Pro-Environmental Behavior: An Integrative Review and Theoretical Framework, *Global Environmental Change*, vol. 29, pp.127–138, Available Online: <https://linkinghub.elsevier.com/retrieve/pii/S0959378014001599> [Accessed 9 March 2020]
- Tunca, B. & Anselmsson, J. (2019). 'You Are Where You Shop': Examining Stereotypes about Town Center Shoppers, *Journal of Retailing and Consumer Services*, vol. 51, pp.242–252, Available on <https://linkinghub.elsevier.com/retrieve/pii/S0969698918309305> [Accessed 5 April 2020]
- Tversky, A. & Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases, *Science*, vol. 185, no. 4157, pp.1124–1131.
- Ujang, N., Kozlowski, M. & Maulan, S. (2018). Linking Place Attachment and Social Interaction: Towards Meaningful Public Places, *Journal of Place Management and Development*, vol. 11, no. 1, pp.115–129
- Uren, H. V., Roberts, L. D., Dzidic, P. L. & Leviston, Z. (2019). High-Status Pro-Environmental Behaviors: Costly, Effortful, and Visible, *Environment and Behavior*, pp.1–30, Available Online: <http://journals.sagepub.com/doi/10.1177/0013916519882773> [Accessed 26 February 2020]
- Valor, C. (2007). The Influence of Information about Labour Abuses on Consumer Choice of Clothes: A Grounded Theory Approach, *Journal of Marketing Management*, vol. 23, no. 7–8, pp.675–695
- Van Bommel, M., Van Prooijen, J.-W., Elffers, H. & Van Lange, P. A. M. (2014). Intervene to Be Seen: The Power of a Camera in Attenuating the Bystander Effect, *Social Psychological and Personality Science*, vol. 5, no. 4, pp.459–466
- Van der Werff, E., Steg, L. & Keizer, K. (2014). I Am What I Am, by Looking Past the Present: The Influence of Biospheric Values and Past Behavior on Environmental Self-Identity, *Environment and Behavior*, vol. 46, no. 5, pp.626–657

- Van Griethuijsen, R. A. L. F., Van Eijck, M. W., Haste, H., den Brok, P. J., Skinner, N. C., Mansour, N., Savran Gencer, A. & BouJaoude, S. (2015). Global Patterns in Students' Views of Science and Interest in Science, *Research in Science Education*, vol. 45, no. 4, pp.581–603
- Van Rompay, T. J. L., Vonk, D. J. & Fransen, M. L. (2009). The Eye of the Camera: Effects of Security Cameras on Prosocial Behavior, *Environment and Behavior*, vol. 41, no. 1, pp.60–74
- Verplanken, B. & Wood, W. (2006). Interventions to Break and Create Consumer Habits, *Journal of Public Policy & Marketing*, vol. 25, no. 1, pp.90–103
- Werner, C. M., Rhodes, M. U. & Partain, K. K. (1998). Designing Effective Instructional Signs With Schema Theory: Case Studies of Polystyrene Recycling, *Environment and Behavior*, vol. 30, no. 5, pp.709–735, Available Online: <https://journals.sagepub.com/doi/10.1177/001391659803000506> [Accessed 21 March 2020]
- White, K., Habib, R. & Hardisty, D. J. (2019). How to SHIFT Consumer Behaviors to Be More Sustainable: A Literature Review and Guiding Framework, *Journal of Marketing*, vol. 83, no. 3, pp.22–49
- White, K., Macdonnell, R. & Dahl, D. W. (2011). It's the Mind-Set That Matters: The Role of Construal Level and Message Framing in Influencing Consumer Efficacy and Conservation Behaviors., *Journal of Marketing Research*, vol. 48, no. 3, pp.472–485, Available Online: <https://journals.sagepub.com/doi/10.1509/jmkr.48.3.472> [Accessed 25 March 2020]
- White, K. & Simpson, B. (2013). When Do (and Don't) Normative Appeals Influence Sustainable Consumer Behaviors?, *Journal of Marketing*, vol. 77, no. 2, pp.78–95
- Whitmarsh, L. & O'Neill, S. (2010). Green Identity, Green Living? The Role of pro-Environmental Self-Identity in Determining Consistency across Diverse pro-Environmental Behaviours, *Journal of Environmental Psychology*, vol. 30, no. 3, pp.305–314, Available Online: <http://www.sciencedirect.com/science/article/pii/S0272494410000046> [Accessed 3 March 2020]
- Withmarsh, L., O'Neill, S. & Lorenzoni, I. (2011). *Engaging the Public with Climate Change: Behaviour Change and Communication*, London: Earthscan
- Zabkar, V. & Hosta, M. (2013). Willingness to Act and Environmentally Conscious Consumer Behaviour: Can Prosocial Status Perceptions Help Overcome the Gap?, *International Journal of Consumer Studies*, vol. 37, no. 3, pp.257–264
- Zahavi, A. (1975). Mate Selection—A Selection for a Handicap, *Journal of Theoretical Biology*, vol. 53, no. 1, pp.205–214
- Zeithaml, V., Berry, L. L. & Parasuraman, A. (1996). The Behavioral Consequences of Service Quality, *Journal of Marketing*, vol. 60, pp.31–46

Zhang, J. & Bloemer, J. M. M. (2008). The Impact of Value Congruence on Consumer-Service Brand Relationships, *Journal of Service Research*, vol. 11, no. 2, pp.161–178

Zikmund, W. G. & Stanton, W. J. (1971). Recycling Solid Wastes: A Channels-of-Distribution Problem, *Journal of Marketing*, vol. 35, no. 3, pp.34–39

Appendix A: Questionnaire Setup

English version:



LUND UNIVERSITY
School of Economics and Management

1. Var god välj om du vill besvara denna enkät på svenska eller engelska.

Please choose if you prefer Swedish or English to answer this questionnaire

- Svenska
- English

Thank you very much

Thank you for your participation in this survey.

Our names are Buster Grunau and Milou Klijn. We are master students from the program International Marketing & Brand Management at Lund University.

The aim of this study is to get insights on consumers' characteristics and behavior in shopping malls. Everyone living in Sweden can participate. The survey will take 10-15 minutes.

For our results, it is important that you answer honestly. There is no right or wrong. Your answers will be treated confidentially and your anonymity is ensured: it will never be possible to link your answers back to you.

You can always reach out to us by clicking on our names below the survey questions.

By clicking "Next", you agree with participating in this study.

Stay healthy!

2. Do you have a Swedish personal number?

- Yes
- No

3. What is your primary nationality?

- Swedish
- Other _____

Answer honestly

Remember, there is no right or wrong. Your answers will be treated confidentially and it is completely anonymous.

4. How would you rate the following statements?

	Strongly disagree	Disagree	Somewhat disagree	Undecided	Somewhat agree	Agree	Strongly Agree
I would be embarrassed to be seen as having an environmentally friendly lifestyle.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think of myself as someone who is very concerned with environmental issues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Everyone can have a positive effect on society, by purchasing products sold by socially responsible companies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I want my family or friends to think of me as someone who is concerned about environmental issues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think of myself as environmentally friendly consumer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. What is important to you before purchasing a product?

Please rate the following statements.

Before purchasing a product it is important to know...

	Strongly disagree	Disagree	Somewhat disagree	Undecided	Somewhat agree	Agree	Strongly Agree
what others think of people who buy certain brands or products.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
what kind of people buy certain brands or products.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
what others think of different brands or products.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
what brands or products to buy to make a good impression on others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. How often do you perform the actions stated below?

Please rate the following statements.

How often do you...

	Never	Rarely	Sometimes	Often	Always
buy clothes from environmentally friendly brands?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
buy vegetarian / vegan food?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eat organic, locally grown or food that is in season?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
buy second hand clothes / items?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
buy products with less packaging?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use reusable bags when shopping?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
get your shoes / clothing repaired so they last longer?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
educate yourself about environmentally friendly behavior?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
donate / return clothes so it might live a second life?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bring your own cup to a café when ordering takeaway?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Your shopping mall

The following questions will be about the shopping mall that you (most frequently) visit.



7. Which shopping mall have you (most frequently) visited in the past 6 months?

Please write down the name of the shopping mall. Only mention one.

- Name:
- I don't visit shopping malls for shopping.

8. What is the reason that you don't visit shopping malls?

Multiple answers possible.

- The shopping malls are too far away for me.
- I buy everything online.
- I prefer the downtown area.
- I don't do the shopping.
- The variety of stores in shopping malls is too little.
- I don't like the crowds.
- I get overwhelmed by the many choice options.
- I'm annoyed by the sales associates.
- I don't like the different smells.
- Others:

9. How often do you visit this shopping mall?

Choose the most applicable option.

- Every day
- About every second day
- About twice a week
- About once a week
- About twice a month
- About once a month
- About once every two months
- Less than once every two months

10. How close is the shopping mall to your home?

I can go there by foot / bike I have to take public transport / the car

11. Which of the following options does the shopping mall that you (most frequently) visit offer?

Select the applicable boxes. There are several answers possible.

The shopping mall that I (frequently) visit offers the possibility to...

buy reusable shopping bags. bring my own cup to a café when ordering takeaway.

buy vegetarian / vegan food in store. buy clothes from environmentally friendly brands.

educate myself about environmentally friendly behavior.

eat organic, locally grown or seasonal food in the food court. get shoes or clothes repaired so they last longer.

donate or return clothes for a second life. shop second hand clothes / items.

buy products with less packaging. I believe my shopping mall offers non of these. I don't know.

12. How would you rate these statements about the shopping mall you (most frequently) visit?

	Strongly disagree	Disagree	Somewhat disagree	Undecided	Somewhat agree	Agree	Strongly Agree
I can identify with the mall and its stores (brands, products, services)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will encourage friends and relatives to go to this mall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The shopping mall and its stores (brands, products, services) help me to become the person who I want to be	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will say positive things about shopping malls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy my shopping trip for its own sake, not just for the items I would buy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The typical shoppers to this mall are very much like me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can identify with people who shop at this mall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shopping at this mall is truly a joy, I experience a sense of adventure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
While shopping at this mall, I can find the items that I am looking for	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can accomplish just what I want to do on my shopping trip	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Imagine you're in a shopping mall

13. Some of below mentioned actions can be easily observed by other people. Some actions are more private. Please rate the following actions on how observable they are; that is how much they can be seen by other people.

Move the slider to rate the following actions.

Educating shoppers about environmentally friendly behavior.



Buying clothes from environmentally friendly brands.



Buying vegetarian / vegan food.



Using reusable bags when shopping.



Buying products with less packaging.



Bringing your own cup to a café when ordering takeaway.

Not at all observable

Extremely observable



Getting clothes or shoes repaired so they last longer.

Not at all observable

Extremely observable



Eating organic, locally grown or seasonal food in the food court.

Not at all observable

Extremely observable



Donating/returning clothes so it might live a second life.

Not at all observable

Extremely observable



Shopping second hand clothes / items.

Not at all observable

Extremely observable



16. Please select your age group.

<18	18-24	25-34	35-44	45-54	55-64	65+
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17. What gender do you identify as?

[Please choose]

18. What is the highest qualification that you have achieved or will achieve, in case it is yet unfinished?

No formal qualification	High School Degree	Bachelor Degree	Master Degree
Doctorate (PhD)			

19. What is your current occupation?

Multiple answers possible.

Student	Employed full-time	Employed part-time	Not employed	Looking for job
Retired				

20. What is your total annual disposable income (in thousand SEK)?

- Less than 150
- 151 – 200
- 201 – 250
- 251 – 350
- 351 – 450
- 451 – 550
- 551 – 650
- 650 – 750
- More than 750
- I prefer not to say.

21. If you'd like to help us further, please provide your email-address. We might reach out to you regarding your answers.

This is optional.

Swedish version:

Tack så mycket

Tack för att du deltar i denna undersökning.

Våra namn är Buster Grunau och Milou Klijn. Vi är masterstudenter från programmet International Marketing & Brand Management vid Lunds universitet....

Syftet med denna studie är att få insikt om konsumenternas egenskaper och beteende i köpcentrum. Alla som bor i Sverige kan delta. Enkäten kommer att ta 10-15 minuter.

För våra resultat är det viktigt att du svarar ärligt. Det finns inget rätt eller fel. Dina svar behandlas konfidentiellt och din anonymitet säkerställs: det kommer aldrig att vara möjligt att länka dina svar tillbaka till dig.

Vi ger bort 1000 SEK. Genom att delta har du chansen att vinna en av kupongerna (1x 400 SEK, 1x300 SEK 1x 200 SEK 1x 100 SEK).

Du kan alltid kontakta oss genom att klicka på våra namn under enkätfrågorna.

Genom att klicka på "Next" samtycker du till att delta i denna studie.

Ta hand om er!

22. Har du ett svensk personnummer?

- Ja
- Nej

23. Vilken nationalitet har du?

- Svenskt
- Annat

Var snäll och svara ärligt

Kom ihåg att det inte finns något rätt eller fel. Dina svar behandlas konfidentiellt och det är helt anonymt.

24. Vänligen ta ställning till följande uttalanden.

	Håller inte alls med	Håller inte med	Håller inte riktigt med	Ingen åsikt	Håller med lite	Håller med	Håller helt med
Jag skulle skämmas om andra såg mig ha en miljövänlig livsstil.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jag ser mig själv som en miljövänlig konsument.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jag vill att familj och vänner tänker på mig som någon som bryr sig om miljön.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alla kan ha en positiv effekt på samhället genom att köpa produkter som säljs av ansvarsfulla företag.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jag ser mig själv som en som bryr sig mycket om miljöfrågor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Vad är viktigt för dig innan du köper en produkt?

Vänligen ta ställning till följande uttalanden.

Innan jag köper en produkt är det viktigt att veta... .

	Håller inte alls med	Håller inte med	Håller inte riktigt med	Ingen åsikt	Håller med lite	Håller med	Håller helt med
vad andra tycker om människor som köpa vissa märken eller produkter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
vilka sorters människor köper vissa märken eller produkter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
vilka märken eller produkter man ska köpa för att ge ett gott intryck på andra.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vad andra tänker om olika märken och produkter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. Hur ofta utför du de åtgärder som anges nedan?

Vänligen ta ställning till följande uttalanden.

Hur ofta ...

	Aldrig	Sällan	Ibland	Ofta	Alltid
använder du återanvändbara kassar när du shoppar?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
lagar du dina skor / kläder så de varar längre?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
köper du begagnade kläder/andra föremål?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
tar du med din egen kopp till kaféet när du beställer takeaway?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
köper du kläder från miljövänliga märken?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
utbildar du dig själv om miljövänligt beteende?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
köper du produkter med mindre förpackningsmaterial?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
äter du ekologiskt, lokalt producerat eller säsongsmat?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
skänker / lämnar du tillbaka kläder så att de kan få ett nytt liv.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
köper du vegetariskt / veganskt?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ditt köpcentrum

Följande frågor handlar om köpcentret du (oftast) besöker.



27. Vilket köpcentrum har du besökt flest gånger under de senaste 6 månaderna?

Skriv namnet på det köpcentrum som du besökte flest gånger. Nämn endast ett.

Namn:

Jag besöker aldrig köpcentra för att handla.

28. Vad är orsaken till att du inte handlar i köpcentrum?

Flera svar är tillåtet.

- Alla köpcentrum är för långt borta för mig
- Jag köper allt online
- jag föredrar att shoppa ute på stan.
- Jag handlar inte.
- det finns för lite variation av butiker i köpcentrum.
- Jag gillar inte folkmassorna.
- Jag blir överväldigad av de många valmöjligheterna.
- Jag blir irriterad av säljarna.
- Jag gillar inte de olika lukterna.
- Övrigt:

29. Hur ofta besöker du det här köpcentret?

Välj det mest passande alternativet.

- Varje dag
- Varannan dag
- Två gånger i veckan
- En gång i veckan
- Två gånger i månaden
- En gång i månaden
- Varannan månad
- Mindre än varannan månad

30. Hur nära ligger köpcentret ditt hem?

Jag kan gå dit till fots / cykla dit

Jag måste ta kollektivtrafik / bilen

31. Vilka av följande alternativ erbjuder köpcentret som du (oftast) besöker?

Välj lämpliga alternativ. Flera svar är tillåtet.

Köpcentret som jag (oftast) besöker erbjuder möjligheten att...

köpa återanvändbara kassar.

ta med min egen kopp till ett takeaway café.

köpa vegetarisk / vegansk mat i butiken.

köpa kläder från miljövänliga märken.

utbilda mig själv om miljövänligt beteende.

äta ekologiskt, lokalt producerat eller säsongsmat i restaurangområdet.

laga dina skor / laga kläder så att de vara länge.

skänka / lämna tillbaka kläder så att de kan få ett nytt liv.

köpa begagnade kläder/andra föremål?

köpa produkter med mindre förpackning.

Jag tror att mitt köpcentrum erbjuder sådana.

jag vet inte.

32. Hur ställer du dig till följande uttalanden om köpcentret du (oftast) besöker

	Håller inte alls med	Håller inte med	Håller inte riktigt med	Ingen åsikt	Håller med lite	Håller med	Håller helt med
Jag kan uppnå precis vad jag vill under min shoppingrunda	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jag kan identifiera mig med de människor som handlar på detta köpcentret	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jag kan identifiera mig med köpcentret och dess butiker (märken, produkter, tjänster)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jag tycker om min shoppingrunda i sig självt, inte enbart för produkterna jag handlar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Att shoppa i köpcentret är verkligen en glädje, jag upplever en känsla av äventyr	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jag kommer att uppmuntra vänner och släktingar att gå till köpcentret	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jag kommer att säga positiva saker om detta köpcentrum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De typiska kunderna på till detta köpcentrum är väldigt lika mig	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Köpcentret och dess butiker (varumärken, produkter, tjänster) hjälper mig att bli den person som jag vill vara	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
När jag shoppar i köpcentrum kan jag hitta de saker jag letar efter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Föreställ dig att du är i ett köpcentrum

33. Vissa av nedanstående åtgärder kan lätt observeras av andra människor. Vissa åtgärder är mer privata. Vänligen betygsätt följande åtgärder baserat på hur observerbara de är; alltså, hur mycket de kan ses av andra människor.

Vänligen flytta reglaget att ta ställning till följande uttalanden.

Skänka / lämna tillbaka kläder så att de kan få ett nytt liv.

Inte alls observerbar Extremt observerbar



Laga kläder eller skor så att de håller längre.

Inte alls observerbar Extremt observerbar



Köpa begagnade kläder/andra föremål?

Inte alls observerbar Extremt observerbar



Köpa produkter med mindre förpackning.

Inte alls observerbar Extremt observerbar



Ta med din egen kopp på kaféet när du beställer takeaway

Inte alls observerbar Extremt observerbar



Utbilda shoppare om miljövänligt beteenden.



Köpa kläder från miljövänliga märken.



Äta ekologiskt, lokaltproducerat eller säsongsmat i restaurangområdet



Köpa vegetarisk / vegansk mat.



Använda återanvändbara kassar när du handlar.



Ditt framtida köpcentrum



35. Föreställ dig att köpcentret du (oftast) besöker har genomfört ovan nämnda åtgärder.

Vad tycker du om följande uttalanden angående ditt framtida köpcentrum?

Vänligen betygsätt följande uttalanden

	Håller inte alls med	Håller inte med	Håller inte riktigt med	Ingen åsikt	Håller med lite	Håller med	Håller helt med
De typiska kunderna på detta framtida köpcentret är förmodligen väldigt lika mig.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jag skulle säga positiva saker om det framtida köpcentret	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jag skulle uppmuntra vänner och släktingar att gå till detta framtida köpcentrum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Detta framtida köpcentrum och dess butiker (märken, produkter, tjänster) hjälper mig att bli den person som jag vill vara	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

34. Föreställ dig att inom en snar framtid kunna utföra alla åtgärder nedan, i köpcentret du besöker oftast.

Hur troligt är det att du skulle utföra dessa åtgärder?

vänligen ta ställning till följande uttalanden.

Jag skulle ...

	Extremt osannolikt	Osannolikt	Ganska osannolikt	Neutralt	Ganska troligt	Troligt	Extremt troligt
köpa vegetarisk / vegansk mat i butiken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
delta i utbildningsevenemang om miljövänligt beteende.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
använda återanvändbara kassar när jag handlar.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
äta ekologiskt, lokalt producerat eller säsongsmat i restaurangområdet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
skänka / lämna tillbaka kläder så att de kan få ett nytt liv.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ta med en egen kopp på kaféet när jag beställer takeaway	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
köpa kläder från miljövänliga märken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
reparera skor eller kläder så att de håller längre.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
köpa produkter med mindre förpackningsmaterial?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
köpa begagnade kläder / andra föremål?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

36. Välj din åldersgrupp.

<18	18-24	25-34	35-44	45-54	55-64	65+
-----	-------	-------	-------	-------	-------	-----

37. Vilket kön identifierar du dig med?

[Please choose]

38. Vad är den högsta utbildning som du har uppnått eller kommer att uppnå, om den fortfarande är oavslutad?

Ingen formell utbildning	Gymnasiet	Kandidatexamen	Masterexamen	Doktorsexamen
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39. Vad är din nuvarande sysselsättning?

Flera svar är tillåtet.

Studering	Anställd heltid	Anställd deltid	Inte anställd	Söker jobb
Pensionerad				

40. Vad är din totala årliga disponibla inkomst (i tusen SEK)?

- Mindre än 150
- 151 – 200
- 201 – 250
- 251 – 350
- 351 – 450
- 451 – 550
- 551 – 650
- 650 – 750
- Mer än 750
- Jag föredrar att inte säga.

41. Vill du ha chansen att vinna en av kupongerna? I så fall, ange din e-postadress eller telefonnummer nedan.
Vi kommer att kontakta dig i början av Juni om du vann.

Detta är valfritt.

Tack för att du har fyllt i detta frågeformulär!

Tusen tack för din hjälp!

Dina svar överfördes, du kan stänga webbläsarfönstret eller fliken nu.

Thank you for completing this questionnaire!

We would like to thank you very much for helping us.

Your answers were transmitted, you may close the browser window or tab now.

Buster Grunau, Milou Klijn, Lund University

Appendix B: Measurements

Pro-environmental Self-identity:

Statements Sparks & Shepherd (1992) – five--point Likert Scale ($\alpha = 0.80$)
“I think of myself as a ‘green consumer’”
“I think of myself as someone who is very concerned with ‘green issues’”
Statements Whitmarsh & O’Neil (2010) – five--point Likert Scale ($\alpha = 0.70$)
“I think of myself as an environmentally friendly consumer”
“I think of myself as someone who is very concerned with environmental issues”
“I would be embarrassed to be seen as having an environmentally-friendly lifestyle”
“I would not want my family or friends to think of me as someone who is concerned about environmental issues”
Statements Dermody et al. (2015) - five--point Likert Scale ($\alpha > 0.70$)
“I think of myself as an environmentally friendly consumer”
“Each consumer’s behavior can have a positive effect on society by purchasing products sold by socially responsible companies”
“I think of myself as someone who is very concerned with environmental issues”
“I would be embarrassed to be seen as having an environmentally-friendly lifestyle” *
“I would not want my family or friends to think of me as someone who is concerned about environmental issues” *
Brick, Sherman and Kim (2017):
“I see myself as pro-environmentalist”
“I am pleased to be pro-environmentalist people”
“I feel strong ties with pro-environmentalist people”
“I identify with pro-environmentalist people”
Statements Dermody et al. (2018) - five--point Likert Scale ($\alpha > 0.70$)
“I think of myself as an environmentally friendly consumer”
“I think of myself as someone who is very concerned with environmental issues”
“I would be embarrassed to be seen as having an environmentally-friendly lifestyle” *
“I would not want my family or friends to think of me as someone who is concerned about environmental issues” *

*statements that got excluded from the data analysis due to low factor loadings

Social Consumption Motivation (SCM):

Statements by the three studies
Before purchasing a product, it is important to know ...
... what others think of different brands or products. *
... what kinds of people buy certain brands or products.
... what others think of people who buy certain brands or products.
... what brands or products to buy to make a good impression on others.

*this statement was taken out by Dermody et al. (2018) due to a low factor loading

Pro-environmental Behaviors (PEB) that are performable in a Shopping Mall:

Behaviors that are somewhat performable in a shopping mall	
Dermody et al. (2015) five-point Likert Scale ($\alpha > 0.78$)	
“Buy fair-trade groceries”	
“Buy food which is organic”	
“Buy environmentally friendly products”	
“Buy food which is locally grown or in season”	
“Buy products using reduced packaging”	
Brick, Sherman and Kim (2017) – five--point Likert Scale ($\alpha > 0.82$)	
“When you visit the grocery store, how often do you use reusable bags?”	
“How often do you eat meat?”	
“How often do you eat dairy products, such as milk, cheese, eggs or yoghurt?”	
“How often do you eat organic food?”	
“How often do you eat local food (produced within 100 miles)?”	
“How often do you eat from a home vegetable garden (during the growing season)?”	
“When you buy light-bulbs, how often do you buy high-efficiency compact fluorescent (CFL) or LED bulbs?”	
“When you buy clothing, how often is it from environmentally-friendly brands?”	
“How often do you carry a reusable water bottle?”	
“How often do you educate yourself about the environment?”	
Dermody et al. (2018) – five--point Likert Scale ($\alpha > 0.77$)	
“Buy organic” (buying)	
“Buy environmentally-friendly products” (buying)	
“Buy food which is locally grown or in season” (buying)	
“Buy products using reduced packaging” (buying)	
Uren et al. (2019)	
“Refuse plastic bags when shopping” (high visibility)	
“Brought your own cup to a café when ordering takeaway” (high visibility)	
“Replaced conventional light globes with low-energy fluorescent or LED bulbs” (low visibility)	
“Chosen to shop at an organic grocer” (high visibility)	

Our Choice of PEB, including Modifications:

Frequency of performed PEB in the past:	
“How often do you perform the actions stated below?” five-point Likert Scale of Brick, Sherman and Kim (2017): (never, rarely, sometimes, often, always).	
Behavioral Intentions: Imagine in the near future, you will be able to perform all the actions below in the shopping mall you most frequently visit. How likely would you perform these actions?”	
Seven-point Likert scale.	
How often do you ...	
“use reusable bags when shopping?”	(Brick, Sherman & Kim, 2017) (Uren et al., 2019)
“bring your own cup to a café when ordering takeaway?”	(Brick, Sherman & Kim, 2017) (Uren et al., 2019)

“buy vegetarian/vegan food?” <i>Transformed this from “eating less meat” and the avoidance of dairy products by adding “vegan” to the statement</i>	(Whitmarsh & O’Neill, 2010) (Brick, Sherman & Kim, 2017)
“buy clothes from environmentally friendly brands?” <i>“Clothes” was only included in one out of four studies, but since consumption of clothing is high in Sweden we used it</i>	(Whitmarsh & O’Neill, 2010) (Dermody et al., 2015) (Brick, Sherman & Kim, 2017) (Dermody et al., 2018)
“educate yourself about environmentally friendly behavior?”	(Brick, Sherman & Kim, 2017) (Alma, Ingka Centres)
“eat organic, locally grown or food that is in season?” <i>A combination of several items which are highly related in terms of their social visibility.</i>	(Whitmarsh & O’Neill, 2010) (Dermody et al., 2015) (Brick, Sherman & Kim, 2017) (Dermody et al., 2018) (Uren et al., 2019)
“get your shoes/clothing repaired, so they last longer?” <i>Modified by changing “items” into “shoes/clothing”</i>	(Whitmarsh & O’Neill, 2010)
“donate/return clothes so it might live a second life?”	(Alma/Jenny, Ingka Centres) (Stål & Jansson, 2017b)
“buy second-hand clothes/items?”	(Alma/Jenny, Ingka Centres) (Stål & Jansson, 2017b)
“buy products with less packaging?”	(Whitmarsh & O’Neill, 2010) (Dermody et al., 2015) (Dermody et al., 2018)

Utilitarian and Hedonic Shopping Value:

Utilitarian shopping value (Ha & Im, 2012)	While shopping at this mall, I can find the items that I am looking for
	I can accomplish just what I want to do on my shopping trip
Hedonic (Ha & Im, 2012)	I enjoy my shopping trip for its own sake, not just for the items I would buy
	Shopping at this mall is truly a joy, I experience a sense of adventure

Mall attractiveness/Self-mall Congruence:

Self-congruence
The typical shoppers to this mall are very much like me <i>Combination of two statements</i> (Ha & Im, 2012; Zeithaml, Berry & Parasuraman, 1996)
I can identify with people who shop at this mall (El Hedhli, Chebat & Sirgy, 2013; Zeithaml, Berry & Parasuraman, 1996)
Self-brand connection (Escalas, Gallo & Gaustad, 2019)
I can identify with the mall and its stores (brands, products, services) <i>Modified from</i> (Escalas, Gallo & Gaustad, 2019)

The shopping mall and its stores (brands, products, services) help me to become the person who I want to be

Modified from (Escalas, Gallo & Gaustad, 2019)

Loyalty intention (Ha & Im, 2012)

I will say positive things about this shopping mall (El Hedhli, Chebat & Sirgy, 2013)

I will encourage friends and relatives to go to this mall (Ha & Im, 2012; Zeithaml, Berry & Parasuraman, 1996)

Appendix C: Facebook Posts

Text that has been used to reach out to group admins:

Hi XY 😊

I saw that you are the admin of the group XY.

I have a question. I am a student at Lund University currently writing my master thesis. The company we were working together with stopped the collaboration due to COVID-19. We are having a hard time finding respondents for our survey now, since I don't know enough people living in Sweden to reach our respondent level of 300.

The survey is available in English and in Swedish.

I wanted to check with you first if it is allowed to post something like this, to ask for help.

This is the link: <https://www.soscisurvey.de/masterthesislund2/>

Looking forward to hearing back from you!

If you have time it would also be great if you could fill it out for us.

Stay healthy and take care,

Kind regards,

Buster Grunau & Milou Klijn

Easter Post:

Enjoying your Easter break and do you have 10 minutes? Interested in winning a voucher for your favorite shopping place? (We're giving away 1000 SEK)

We're looking for people in Sweden who can fill out our survey:

<https://www.soscisurvey.de/masterthesislund/>

Due to a cancelled collaboration because of COVID-19, we're trying to reach out to people in Sweden this way. It would mean a lot to us if you could fill out our survey.

Thank you!

Milou Klijn & Buster Grunau

Master Students International Marketing & Brand Management, Lund University



Swedish post:

Uttråkad hemma och har 10 minuter över? Är du intresserad av att vinna en kupong till ditt favorit köpcenter? (Vi ger bort 1000 SEK)

Vi letar efter folk i Sverige som är villiga att fylla i vår undersökning:
<https://www.soscisurvey.de/masterthesislund2/>

På grund av ett avbrutet samarbete i och med COVID-19 försöker vi nå ut till människor i Sverige på detta sätt. Det skulle betyda väldigt mycket för oss om du skulle kunna fylla i vår undersökning.

Tack så mycket!

Med vänlig hälsning

Buster Grunau & Milou Klijn

Master Students International Marketing & Brand Management, Lunds Universitet.



English post:

A little bored at home and do you have 10 spare minutes? Interested in winning a voucher for your favorite shopping place? (We're giving away 1000 SEK)

We're looking for people in Sweden who can fill out our survey:

<https://www.soscisurvey.de/masterthesislund2/>

Due to a cancelled collaboration because of COVID-19, we're trying to reach out to people in Sweden this way. It would mean a lot to us if you could fill out our survey.

Thank you & stay healthy!

Milou Klijn & Buster Grunau

Master Students International Marketing & Brand Management, Lund University



Appendix D: Descriptives

Shopping Mall Name and Area					
Mall	Frequency	Percent	Mall	Frequency	Percent
A6, Jönköping	2	0.6	Liljeholmens Galleria, Stockholm	4	1.2
Åhléns City, Stockholm	2	0.6	Mall of Scandinavia, Stockholm	20	6.0
Åkersberga Center, Åkersberga (Stockholm)	1	0.3	Marieberg Galleria, Örebro	1	0.3
Allum, Partille (Gothenburg)	1	0.3	Mittpunkten, Östersund	1	0.3
Asecs, Jönköping	1	0.3	Mobilia, Malmö	7	2.1
Bromma Blocks, Bromma (Stockholm)	1	0.3	Mölndal Galleria, Mölndal (Gothenburg)	4	1.2
Burlöv Center, Arlöv (Malmö)	5	1.5	Mood, Stockholm	1	0.3
C4 Shopping, Kristianstad	1	0.3	Mörby Centrum, Danderyd (Stockholm)	1	0.3
Caroli, Malmö	2	0.6	Nacka Forum, Nacka (Stockholm)	3	0.9
Emporia, Malmö	50	14.9	Nordiska Kompaniet, Stockholm	2	0.6
Entre, Malmö	1	0.3	Nordstan, Gothenburg	20	6.0
Erikslund Shopping Center, Västerås (Stockholm)	1	0.3	Nova Lund, Lund	60	17.9
Fältöversten, Stockholm	2	0.6	Överby Shopping, Överby (Gothenburg)	2	0.6
Farsta Centrum, Farsta (Stockholm)	4	1.2	S:t Per Gallerian, Uppsala	1	0.3
Forum Galleria, Uppsala	1	0.3	Sickla, Nacka (Stockholm)	3	0.9
Frölunda Torg, Gothenburg	9	2.7	Sollentuna Centrum, Sollentuna (Stockholm)	1	0.3
Galleria Center Syd, Löddeköpinge (Lund)	2	0.6	Sollentuna Centrum, Stockholm	1	0.3
Galleria Gränden, Linköping	2	0.6	Solna Centrum, Stockholm	3	0.9
Galleria Trädgården, Varberg (Gothenburg)	1	0.3	Spiralen, Norrköping	1	0.3
Gallerian, Stockholm	4	1.2	Sturegallerian, Stockholm	1	0.3
Gränby Centrum, Uppsala	5	1.5	Täby Centrum, Täby (Stockholm)	6	1.8
Grand Samarkand, Växjö	5	1.5	Torp Shopping Centre, Uddevalla (Gothenburg)	1	0.3
Hallarna, Halmstad (Helsingborg)	1	0.3	Triangeln, Malmö	22	6.5

Haninge Centrum, Handen (Stockholm)	1	0.3	Tunapark, Eskilstuna (west of Stockholm)	1	0.3
Hansa, Malmö	5	1.5	Utopia, Umeå	2	0.6
ICA Maxim, Lund	1	0.3	Väla, Helsingborg	38	11.3
Ingelsta Shopping, Norrköping	1	0.3	Valbo Köpcentrum, Valbo (above Uppsala)	2	0.6
Kista Galleria, Kista (Stockholm)	4	1.2	Vällingby Centrum, Vällingby (Stockholm)	1	0.3
Kongahälla, Kungälv (Gothenburg)	2	0.6	Väsby Centrum, Stockholm	1	0.3
Kungsmässan, Kungsbacka (Gothenburg)	3	0.9	Västermalmsgallerian, Stockholm	1	0.3
Kupolen, Borlänge (above Stockholm)	3	0.9	Total	336	100.0

Frequency of visits per mall		About once every two months or less	About once or twice a month	Once every week or more often
Nova Lund, Lund	n	38	20	2
	%	63%	33%	3%
Emporia, Malmö	n	25	18	7
	%	50%	36%	14%
Väla, Helsingborg	n	15	21	2
	%	39%	55%	5%
Triangeln, Malmö	n	7	10	5
	%	32%	45%	23%
Nordstan, Gothenburg	n	6	9	5
	%	30%	45%	25%
Mall of Scandinavia, Stockholm	n	11	7	2
	%	55%	35%	10%
Other	n	39	47	40
	%	31%	37%	32%
Total	n	141	132	63
	%	42%	39%	19%

Means and standard deviations of the frequency of past behavior in total and most visited malls

Past behavior	Total		Nova Lund N=60		Emporia N=50		Väla N=38		Triangeln N=22		Nordstan N=20		Mall of Scandinavia N=20	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Aggregated value	3.33	0.56	3.18	0.52	3.35	0.64	3.35	0.64	3.41	0.59	3.64	0.53	3.17	0.55
Use reusable bags	4.36	0.82	4.30	0.87	4.39	0.76	4.39	0.76	4.59	0.67	4.70	0.47	4.25	0.91
Donate / return clothes	4.03	1.04	3.70	1.31	4.26	0.86	4.26	0.86	4.09	0.92	4.40	0.75	4.00	0.73
Eat organic, locally grown, or seasonal	3.51	0.73	3.48	0.73	3.68	0.74	3.68	0.74	3.41	0.80	3.55	0.83	3.15	0.75
Buy vegetarian /vegan	3.42	1.07	3.35	1.01	3.42	1.03	3.42	1.03	3.59	1.14	4.05	0.95	2.75	1.12
Educate yourself	3.42	1.00	3.22	1.03	3.34	1.15	3.34	1.15	3.59	0.91	3.80	0.89	3.45	0.89
Buy products with less packaging	3.32	0.89	3.30	0.94	3.21	0.91	3.21	0.91	3.50	1.14	3.50	0.95	3.35	0.67
Get shoes / clothing repaired	3.29	1.26	3.12	1.06	3.26	1.16	3.26	1.16	3.00	1.27	3.65	1.18	3.10	1.02
Buy second-hand clothes / items	2.94	1.03	2.90	0.97	2.74	1.01	2.74	1.01	3.00	1.11	2.80	1.06	2.70	1.17
Buy environmentally friendly clothes	2.93	0.86	2.65	0.90	3.08	0.88	3.08	0.88	2.95	0.79	3.15	0.88	3.00	0.65
Bring own coffee mug	2.10	1.31	1.73	1.06	2.11	1.29	2.11	1.29	2.45	1.50	2.80	1.28	1.95	1.05

Performable Behaviors at Shopping Malls	Total	Nova	Emporia	Väla	Triangeln	Nordstan	Mall of Scandinavia
	%	%	%	%	%	%	%
buy vegetarian / vegan food in store.	64,73%	55,6%	63,6%	46,7%	65,0%	63,2%	61,1%
buy reusable shopping bags.	48,45%	27,8%	48,5%	43,3%	45,0%	47,4%	33,3%
buy clothes from environmentally friendly brands.	40,70%	33,3%	45,5%	46,7%	35,0%	42,1%	55,6%
donate or return clothes so it may live a second life	34,11%	27,8%	48,5%	40,0%	20,0%	26,3%	22,2%
bring my own cup to a café when ordering takeaway	31,40%	27,8%	33,3%	23,3%	45,0%	31,6%	27,8%
get shoes or clothes repaired so they last longer.	33,33%	11,1%	27,3%	36,7%	35,0%	47,4%	27,8%
buy products with less packaging.	29,45%	16,7%	36,4% a	23,3%	40,0%	15,8%	22,2%
I don`t know.	19,40%	36,1%	12,1%	10,0%	25,0%	21,1%	16,7%
eat organic, locally grown or seasonal food in the food court.	18,99%	8,3%	24,2%	16,7%	30,0%	10,5%	33,3%
shop second-hand clothes / items.	18,99%	0,0%	57,6%	3,3%	10,0%	0,0%	16,7%
educate myself about environmentally friendly behavior.	6,59%	2,8%	9,1%	10,0%	0,0%	5,3%	11,1%
I believe my shopping mall offers none of these.	5,43%	16,7%	0,0%	0,0%	10,0%	15,8%	0,0%
Total average	29%	22%	34%	25%	30%	27%	27%

Shopping Mall Descriptives: Mean of Mall Attractiveness in Current and Future Setting (n=336)

	Mean	Std. Error	Std. Deviation
Current MA	3.8616	.06528	1.19662
Future MA	4.7999	.06273	1.14992
Past ML	4.2009	.07198	1.31942
Future ML	5.7837	.04821	.88371

Past Behavior / Behavioral Intention of PEB	Strength of correlation	Past behavior		Intentions	
		M	SD	M	SD
Buy clothes from environmentally friendly brands	Weak = .365	2.93	0.88	5.55	1.13
Eat organic, locally grown or seasonal food	Weak = .335	3.51	0.73	5.65	1.22
Educate yourself about environmentally friendly behavior	Weak = .365	3.42	1.00	4.00	1.77
Use reusable shopping bags	Moderate = .545	4.36	0.82	6.42	1.04
Bring my own cup to a café when ordering takeaway	Moderate = .594	2.10	1.31	4.82	1.70
Get shoes or clothes repaired so they last longer	Moderate = .503	3.29	1.13	5.27	1.44
Donate or return clothes	Moderate = .437	4.03	1.04	6.01	1.25
Buy products with less packaging	Moderate = .509	3.32	0.89	5.89	1.17
Shop second-hand clothes / items	Strong = .685	2.94	1.03	5.07	1.70
Buy vegetarian / vegan food in store	Strong = .642	3.42	1.07	5.37	1.52

Means PESI, SCM, and Social Visibility per Behavior	Minimum	Maximum	Mean	SD
PESI_TOT	3.00	7.00	5.7595	.68225
SCM_TOT	1.00	6.67	2.7778	1.38395
SVIS_TOTAL	1.20	6.40	3.9455	1.07866
Using reusable bags when shopping.	1	7	5.44	1.634
Bringing your own cup to a café when ordering takeaway.	1	7	4.79	2.038
Buying vegetarian / vegan food.	1	7	4.30	1.681
Buying clothes from environmentally friendly brands.	1	7	3.84	1.705
Eating organic, locally grown or seasonal food in the food court.	1	7	3.51	1.696
Getting clothes or shoes repaired so they last longer.	1	7	3.18	1.766
Donating/returning clothes so it might live a second life.	1	7	3.34	1.956
Shopping second-hand clothes / items.	1	7	3.71	1.977
Buying products with less packaging.	1	7	3.72	1.773
Educating shoppers about environmentally friendly behavior.	1	7	3.63	1.866

Appendix E: Internal Consistencies

Measurement	# of items	Cronbach's Alpha level
PESI	5	.695
SCM – 1 item deleted	3	.848
SCM	4	.827
PEB Past	10	.759
PEB Intentions	10	.831
Hedonic Shopping Value	2	.739
Utilitarian Shopping Value	2	.703
Current MA	4	.769
Current ML	4	.713
Future MA	2	.868
Future ML	2	.805

Social Consumption Motivation (SCM):

Cronbach's Alpha: .827 for N=4 items.

Internal Consistency Test				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Before purchasing a product, it is important to know...				
what others think of different brands or products.	8.33	17.238	.506	.848
what kind of people buy certain brands or products.	8.97	15.483	.683	.768
what others think of people who buy certain brands or products.	9.16	15.377	.739	.743
what brands or products to buy to make a good impression on others.	9.12	15.701	.698	.762

Pro-environmental Self-identity (PESI):

Cronbach's Alpha: .695 for N=5 items

Internal Consistency Test				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I think of myself as someone who is very concerned with environmental issues.	23.30	6.848	.603	.572
I think of myself as environmentally friendly consumer.	23.68	7.621	.474	.636
Everyone can have a positive effect on society, by purchasing products sold by socially responsible companies.	22.68	8.827	.331	.692
I want my family or friends to think of me as someone who is concerned about environmental issues.	23.25	7.125	.509	.620
I would be embarrassed to be seen as having an environmentally friendly lifestyle.	22.28	9.653	.362	.683

Frequency of the Performance of Pro-environmental Behaviors (PEB):

Cronbach's Alpha: .759 for N=10 items

Internal Consistency Test				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
How often do you...				
use reusable bags when shopping?	28.970	27.820	.361	.747
bring your own cup to a café when ordering takeaway?	31.229	24.494	.417	.744
buy vegetarian / vegan food?	29.908	25.636	.448	.736

buy clothes from environmentally friendly brands?	30.393	26.144	.526	.727
educate yourself about environmentally friendly behavior?	29.908	24.615	.606	.713
eat organic, locally grown or food that is in season?	29.812	28.254	.366	.747
get your shoes / clothing repaired so they last longer?	30.039	26.587	.324	.755
donate / return clothes so it might live a second life?	29.295	26.591	.371	.747
buy second-hand clothes / items?	30.387	26.220	.410	.741
buy products with less packaging?	30.006	26.597	.463	.735

Pro-environmental Behavioral Intention (PEBI):

Cronbach's Alpha: .806 of N=10 Items

Internal Consistency Test				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I would...				
use reusable shopping bags.	47.63	64.508	.443	.795
bring my own mug to a takeaway cafe.	49.24	55.685	.569	.779
buy vegetarian / vegan food in store.	48.68	61.167	.400	.799
buy clothes from environmentally friendly brands.	48.50	61.331	.584	.781
eat organic, locally grown or seasonal food in the food court.	48.40	62.414	.471	.791
get shoes or clothes repaired so they last longer.	48.78	60.443	.466	.791
donate or return clothes for a second life.	48.04	62.160	.468	.791

shop second-hand clothes / items.	48.98	57.641	.485	.790
buy products with less packaging.	48.16	61.676	.541	.785
participate in educational events about environmentally friendly behavior.	50.05	56.678	.493	.790

Current Mall Attractiveness (Current MA):

Cronbach's Alpha: .769 for N=4 items

Internal Consistency Test				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Self-congruence: I can identify with people who shop at this mall	10.55	12.278	.579	.710
Self-congruence: The typical shoppers to this mall are very much like me	10.54	12.219	.588	.706
Self-brand connection: I can identify with the mall and its stores (brands, products, services)	10.12	11.172	.606	.694
Self-brand connection The shopping mall and its stores (brands, products, services) help me to be to become who I want to be	10.95	11.549	.517	.746

Current Mall Loyalty Intentions (Current ML):

Cronbach's Alpha: .713 for N=2 items

Internal Consistency Test			
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation
I will say positive things about shopping malls	4.12	2.336	.555
I will encourage friends and relatives to go to this mall	4.29	2.145	.555

Future Mall Attractiveness (Future MA):

Cronbach's Alpha: .868 for N=4 items

Internal Consistency Test				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Self-congruence: I could identify with people who shop at this future mall.	14.45	12.648	.750	.820
Self-congruence: The typical shoppers to this future mall are probably like me.	14.56	12.862	.719	.832
Self-brand connection: I could identify with this future mall and its stores (brands, products, services).	14.10	12.879	.728	.828
Self-brand connection: This future mall and its stores (brands, products, services) help me to become the pers...	14.49	11.313	.701	.846

Future Mall Loyalty Intentions:

Cronbach's Alpha: .805 for N=2 items

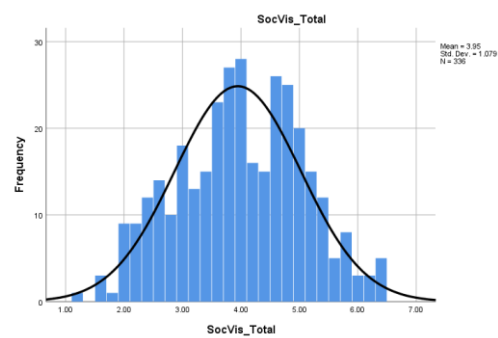
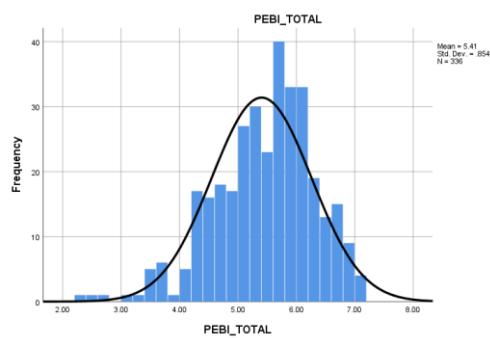
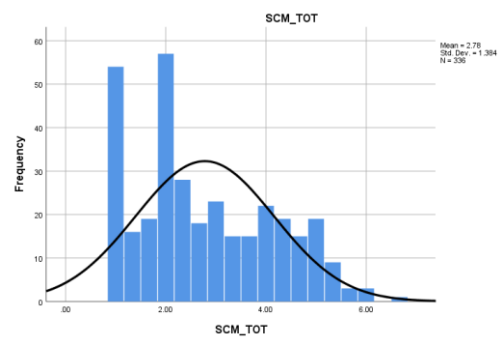
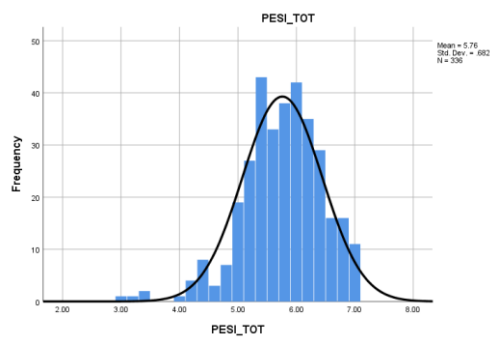
Internal Consistency Test			
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation
I would say positive things about this future mall.	5.66	1.199	.683
I would encourage friends and relatives to go to this future mall.	5.85	.860	.683

Appendix F: Tests of Normality

Constructs of Research Question 1

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PESI_TOT	.082	336	.000	.963	336	.000
SCM_TOT	.147	336	.000	.931	336	.000
PEBI_TOTAL	.084	336	.000	.975	336	.000
L						
SVIS_Total	.061	336	.004	.990	336	.017

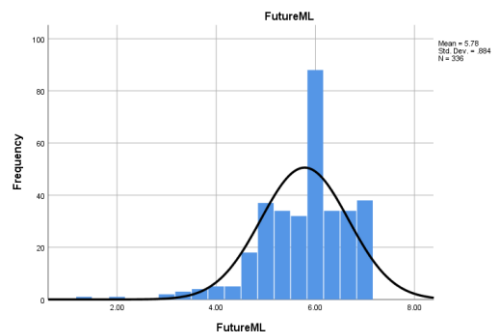
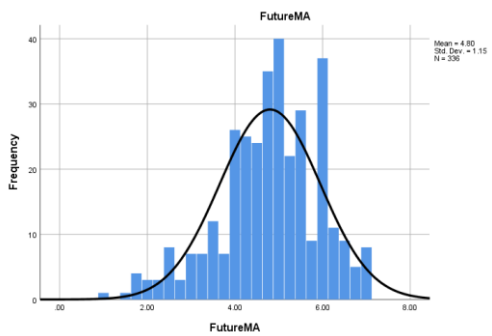
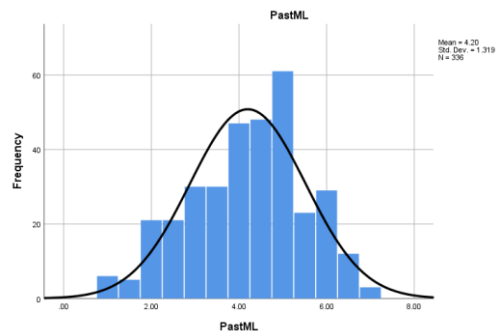
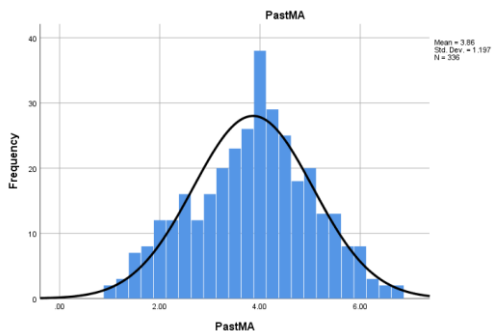
a. Lilliefors Significance Correction



Constructs of Research Question 2

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PastML	.113	336	.000	.972	336	.000
FutureML	.174	336	.000	.916	336	.000
PastMA	.079	336	.000	.988	336	.008
FutureMA	.093	336	.000	.972	336	.000

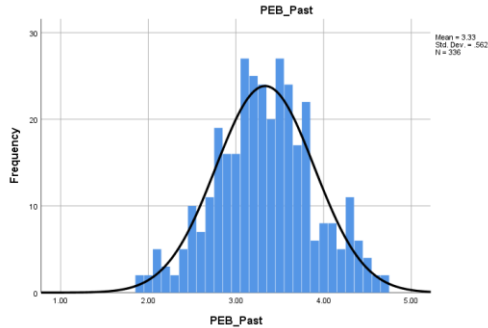
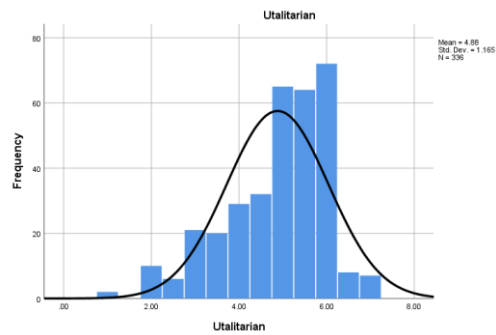
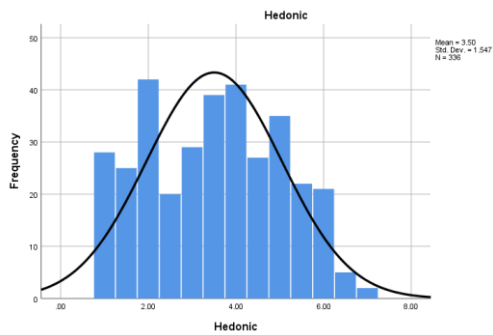
a. Lilliefors Significance Correction



Hedonic Shopping Value, Utilitarian Shopping Value and Past Behavior

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Hedonic	.117	336	.000	.959	336	.000
Utilitarian	.184	336	.000	.925	336	.000
PEB_Past	.048	336	.058	.992	336	.065

a. Lilliefors Significance Correction



Appendix G: Inferential Statistics

Wilcoxon Signed Rank Test – Mall Comparison Utilitarian / Hedonic Shopping Value

Shopping mall	Utilitarian M	Utilitarian SD	Hedonic M	Hedonic SD	Z	Sig.	N
Nova Lund	4.57	1.20	3.06	1.47	-5.168	.000	60
Emporia	4.93	1.02	3.69	1.68	-4.337	.000	50
Väla	5.04	1.18	3.59	1.48	-3.796	.000	38
Triangeln	4.61	1.14	3.14	1.25	-3.187	.001	22
Nordstan	5.03	1.11	3.05	1.82	-3.107	.002	20
Mall of Scandinavia	5.48	0.82	4.42	1.33	-3.085	.002	20
Total	4.88	1.17	3.50	1.55	-11.881	.000	210

One-tailed Spearman's Ranked Order Correlation: Past Pro-Environmental Behavior Frequency & Behavioral Intentions, N=336

Spearman's rho Correlation: Behavioral Intention (→) Past Behavior (↓)	use reusable shopping bags	bring my own cup to a café	buy vegetarian / vegan	buy clothes from e-friendly brands.	eat organic, locally grown or seasonal	get shoes or clothes repaired	donate or return clothes	shop second-hand clothes / items.	buy products with less packaging	participate in educational events
use reusable bags when shopping?	.545**									
One-tailed Sig.	0.000									
bring your own cup to a café	.293**	.594**								
One-tailed Sig.	0.000	0.000								
buy vegetarian / vegan food	.221**	.265**	.642**							
One-tailed Sig.	0.000	0.000	0.000							

buy clothes from environmentally friendly brands	.160**	.199**	.208**	.365**						
One-tailed Sig.	0.002	0.000	0.000	0.000						
eat organic, locally grown or seasonal food	0.051	.126*	.251**	.264**	.335**					
One-tailed Sig.	0.177	0.011	0.000	0.000	0.000					
get your shoes / clothing repaired	.124*	.175**	.134**	.109*	.146**	.503**				
One-tailed Sig.	0.012	0.001	0.007	0.023	0.004	0.000				
donate / return clothes?	.204**	.229**	.212**	.256**	.223**	.212**	.437**			
One-tailed Sig.	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
buy second-hand clothes / items?	.109*	.243**	.162**	.127**	0.066	.260**	.166**	.685**		
One-tailed Sig.	0.023	0.000	0.001	0.010	0.115	0.000	0.001	0.000		
buy products with less packaging?	.259**	.306**	.123*	.297**	.182**	.252**	.105*	.206**	.509**	
One-tailed Sig.	0.000	0.000	0.012	0.000	0.000	0.000	0.027	0.000	0.000	
educate yourself about e- friendly behavior?	.222**	.358**	.275**	.364**	.242**	.222**	.178**	.252**	.302**	.365**
One-tailed Sig.	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000

One-tailed Spearman's Ranked Order Correlation: Social Visibility & Pro-Environmental Behavioral Intentions, N=336

Spearman's rho	use reusable shopping bags.	bring my own cup to a cafe	buy vegetarian / vegan food	buy clothes from environmentally friendly brands.	eat organic, locally grown or seasonal food	get shoes or clothes repaired	donate or return clothes	shop second-hand clothes / items	buy products with less packaging	participate in educational events
Behavioral Intention (→)										
Social Visibility (↓)										
SVIS: use reusable shopping bags.	.275**									
One-tailed Sig.	0.000									

SVIS: bring my own cup to a cafe	0.062	.181**								
One-tailed Sig.	0.130	0.000								
SVIS: buy vegetarian / vegan food in store.	.146**	.158**	.382**							
One-tailed Sig.	0.004	0.002	0.000							
SVIS: buy clothes from environmentally friendly brands.	0.037	0.041	.115*	.172**						
One-tailed Sig.	0.249	0.228	0.017	0.001						
SVIS: eat organic, locally grown or seasonal food	0.026	0.087	.117*	0.052	.109*					
One-tailed Sig.	0.320	0.055	0.016	0.170	0.023					
SVIS: get shoes or clothes repaired	-0.015	.096*	0.038	-0.033	0.010	.158**				
One-tailed Sig.	0.393	0.039	0.244	0.276	0.430	0.002				
SVIS: donate or return clothes for	0.062	.130**	0.060	0.075	0.011	0.036	.104*			
One-tailed Sig.	0.129	0.009	0.137	0.085	0.417	0.254	0.028			
SVIS: shop second-hand clothes / items.	0.027	0.034	.123*	0.075	0.054	0.073	0.051	.248**		
One-tailed Sig.	0.309	0.265	0.012	0.086	0.162	0.091	0.174	0.000		
SVIS: buy products with less packaging.	.166**	.182**	0.042	.175**	.115*	-0.040	0.049	.199**	.311**	
One-tailed Sig.	0.001	0.000	0.224	0.001	0.017	0.234	0.184	0.000	0.000	
SVIS: participate in educational events	0.052	.148**	.146**	.104*	.102*	0.044	0.034	.219**	0.085	.188**
One-tailed Sig.	0.169	0.003	0.004	0.029	0.031	0.211	0.267	0.000	0.060	0.000

Two-Tailed Spearman's Ranked Order Correlation: Social Consumption Motivation on Pro-Environmental Behavioral Intentions, N=336

Spearman's rho	use reusable shopping bags	bring my own mug to a takeaway café	buy vegetarian / vegan food in store	buy clothes from environmentally friendly brands	eat organic, locally grown or seasonal food	get shoes or clothes repaired so they last longer	donate or return clothes for a second life	shop second-hand clothes / items	buy products with less packaging	participate in educational events
SCM_TOT	-.155**	-0.105	-0.011	-0.104	-0.048	-0.047	-.121*	0.018	-.196**	-0.084
Two-tailed Sig.	0.004	0.054	0.848	0.056	0.381	0.386	0.027	0.743	0.000	0.124

Two-Tailed Spearman's Ranked Order Correlation: PESI, Current MA & Current ML, N=336

Spearman's rho	Current MA	Current ML
PESI	-.147**	-.136*
Two-tailed Sig.	.007	.013
Current MA	1.000	.888**
Two-tailed Sig.		.000

Two-Tailed Spearman's Ranked Order Correlation: PESI, Future MA & Future ML, N=336

Spearman's rho	Future MA	Future ML
PESI	.277**	.259**
Two-tailed Sig.	0.000	0.000
Future MA		.666**
Two-tailed Sig.		0.000

Non-parametric moderated mediation regression analysis for hypotheses 1 (model 15 in PROCESS macro syntax)

Behavior	R ²	Model SE	Model p.	F(HC4)	Df (1;2)	Variables	B	SE (HC4)	Boot-LLCI	Boot-ULCI
All: Outcome Variable PESI	.0026	.4656	.3478	.8839	(1;334)					
						SCM	-.0252	.0269	-.0779	.0271
PEBI Aggregated	.3348	.4927	.0000	26.5689	5;330					
						SCM_TOT	.0134	.1224	-.2166	.2563
						PESI_TOT	1.1974*	.2583	.7008	1.7079
						SVIS_TOT	1.1575*	.3752	.4457	1.9184
						INT1	-.0181	.0282	-.0743	.0344
						INT2	-.1575*	.0615	-.2836	-.0415
						R ² Δ	.0185			
Participate in educational events	.1539**	2.6946	.0000	12.3940	5;330					
						SCM_TOT	-.1009	.1486	-.3860	.1976
						PESI_TOT	.4146	.3124	-.1951	1.0303
						SVIS	-.3811	.4169	-.1.1626	.4838
						INT1	-.0024	.0370	-.0775	.0678
						INT2	.1028	.0701	-.0366	.2340
						ModMed	-.0026	.0037	-.0115	.0040
Buy products with less packaging	.3132**	.9509	.0000	26.0357	5;330					
						SCM_TOT	-.1457	.1051	-.3503	.0639
						PESI_TOT	1.1433*	.1991	.7442	1.5273
						SVIS	1.0128*	.2939	.4266	1.5922
						INT1	.0010	.0235	-.0456	.0472
						INT2	-.1458*	.0473	-.2383	-.0497
						R ² Δ	.0212			
						ModMed	.0037	.0043	-.0047	.0129

Behavior	R ²	Model SE	Model p.	F(HC4)	Df (1;2)	Variables	B	SE (HC4)	Boot-LLCI	Boot-ULCI
Shop second-hand	.1590**	2.4401	.0000	11.8862	5;330	SCM_TOT	.2654	.1543	-.0288	.5653
						PESI_TOT	.9674*	.2831	.4127	1.5130
						SVIS	.6898	.3986	-.0863	1.4995
						INT1	-.0621	.0335	-.1282	.0042
						INT2	-.0578	-.0646	-.1879	.0683
						ModMed	.0015	.0029	-.0027	.0091
						Donate/ return clothes	0.983**	1.4344	.0023	3.8155
						PESI_TOT	.7791*	.2779	.2133	1.3005
						SVIS	.8427*	.3874	.0750	1.5899
						INT1	.0173	.0263	-.0350	.0686
						INT2	-.1383*	.0629	-.2604	-.0131
						R ² Δ	.0201			
						ModMed	.0035	.0043	-.0042	.0133
						Get shoes / clothes repaired	.1188**	1.8554	.0000	7.7900
						PESI_TOT	.8448*	.2353	.3562	1.2859
						SVIS	.7151	.3925	-.0717	1.4662
						INT1	-.0163	.0312	-.0809	.0399
						INT2	-.0908	.0639	-.2117	.0376
						ModMed	.0023	.0034	-.0029	.0108
						Eat organic, locally grown or seasonal	.0803**	.13839	.0001	5.6008
						PESI_TOT	.5988*	.1962	.1876	.9490
						SVIS	.3858	.2636	-.2227	.8219
						INT1	.0107	.0247	-.0372	.0587
						INT2	-.0552	.0452	-.1327	.0448
						ModMed	.0014	.0021	-.0028	.0059

Behavior	R ²	Model SE	Model p.	F(HC4)	Df (1;2)	Variables	B	SE (HC4)	Boot-LLCI	Boot-ULCI
Buy clothes from environmentally friendly brands	.2565**	.9666	.0000	17.9509	5;330	SCM_TOT	.1970	.1160	-.0284	.4302
						PESI_TOT	.9888*	.2436	.5321	1.4895
						SVIS	.7397*	.3451	.0762	1.4353
						INT1	-.0640*	.0265	-.1155	-.0155
						R ² Δ .0169				
						INT2	-.0801	.0549	-.1891	.0270
						ModMed	.0020	.0031	-.0023	.0098
Buy vegetarian / vegan food in store	.2259**	1.8069	.0000	19.2529	5;330	SCM_TOT	.3745*	.1636	.0547	.7017
						PESI_TOT	.9604*	.3490	.2746	1.6583
						SVIS	1.1520*	.3959	.3953	1.9691
						INT1	-.0834*	.0329	-.1489	-.0192
						R ² Δ .0173				
						INT2	-.1051	.0682	-.2442	.0268
						ModMed	.0026	.0039	-.0032	.0123
Bring your own cup to a café	.1727**	2.4131	.0000	13.2228	5;330	SCM_TOT	.2298	.1849	-.1321	.6002
						PESI_TOT	1.5451*	.3874	.7405	2.2678
						SVIS	1.1478*	.4369	.2539	1.9772
						INT1	-.0637	.0350	-.1343	.0032
						INT2	-.1432	.0735	-.2834	.0098
						ModMed	.0036	.0044	-.0053	.0134
						Buy reusable shopping bags	.1488**	.9281	.0001	5.4419
PESI_TOT	1.1106*	.4088	.3750	1.9575						
SVIS	.9613*	.4090	.2153	1.7917						
INT1	-.0230	.0280	-.0778	.0315						
INT2	-.1322*	.0654	-.2664	-.0128						
R ² Δ .0211										

	ModMed	.0033	.0042	-.0042	.0129
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Non-parametric mediated regression analysis for hypotheses 2 (model 4 in PROCESS macro syntax)

Setting	R ²	Model SE	Model p	F(HC4)	Df (1;2)	Variables	B	SE (HC4)	Boot-LLCI	Boot-ULCI
Current Mall	.8125**	.3283	.0000	1003.7652	5;330					
						PESI_TOT	-.0265	.0472	-.1186	.0682
						MA	.9918*	.0227	.9480	1.0364
						Indirect effect via MA	-.2324*	.1012	-.4388	-.0413
PESI on MA	.0178*	1.4106	.0214	5.3415	1;334					
						PESI_TOT	-.2343*	.1012	-.4376	-.0414
Future Mall	.4656**	.4198	.0000	74.2600	3;330					
						PESI_TOT	.1226*	.0545	.0142	.2291
						SVIS	.4962*	.0409	.4188	.5772
						Indirect effect via MA	.2720*	.0592	.1590	.3918
PESI on MA	.1058**	1.1860	.0000	22.9050	1;334					
						PESI_TOT	.5482*	.1092	.3270	.7534