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PSYCHOLOGICAL DETERMINANTS OF SUSTAINABLE CONSUMER BEHAVIOR - THE ROLE OF HOPE IN SUSTAINABLE FASHION CONSUMPTION

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Abstract

The fashion industry's environmental impact has spurred interest in sustainable fashion, emphasizing the need to address the attitude-behavior gap. This paper constitutes part of broader research investigating how coupling environmental claims with emotional appeals influences purchase intentions for sustainable fashion, focusing on hope. The study undertook a quantitative, survey-based experimental design with 131 respondents. Results revealed that the hope appeal had a significant positive influence on purchase intentions but could not be directly attributed to the intended emotional response, as the manipulation of hope failed. The findings highlight the complexity of isolating emotions and underscore the need for future research.

Keywords

Sustainable Consumer Behavior, Sustainable Fashion, Emotional Appeal, Purchase Intention, Environmental Claim, Advertisement, Hope Appeal

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1. Introduction

1.1 Background

In recent years, a critical spotlight has been cast on the fashion industry as one of the most environmentally detrimental sectors responsible for excessive water usage, pollution, and immense amounts of waste (Pal and Gander 2018). In response to mounting environmental concerns, sustainable fashion has emerged as a vast concept for clothing and behaviors aimed at meeting present needs while minimizing negative impacts on people and the planet (Mukendi et al. 2020). Although consumer demand for sustainable fashion is on the rise (Dhir et al. 2021), especially among younger generations who prioritize sustainability and corporate social responsibility (Deloitte 2019; McNeill and Venter 2019), the well-documented "attitude-behavior gap" persists, where consumers express strong support for sustainability but often fail to make actions subsequently aligned (K. Peattie and S. Peattie 2009; Vermeir and Verbeke 2006).

From a business perspective, there are many possible approaches to sustainability, including innovative technologies, production systems, business models, corporate policies, and initiatives (Mukendi et al. 2020; Osbaldiston and Schott 2011; Peattie 2010). However, one area with great potential that should not be overlooked pertains to the possibility of influencing individuals' behavior (Osbaldiston and Schott 2011). Although all the aforementioned do play a vital role in the pursuit of sustainability, their contribution remains heavily dependent on both the actions of, and interactions between, producers and consumers (Peattie 2010). Consequently, consumer behavior constitutes a fundamental aspect of sustainable development, with what, how, and how much people consume at its very core (Osbaldiston and Schott 2011; Peattie 2010; Princen, Maniates, and Conca 2002; Trudel 2018). Without consumers'

willingness and ability to change their consumption behaviors and support sustainably efficient businesses, the desired impacts will inevitably be undermined (Peattie 2010).

The term 'sustainable consumer behavior' specifically refers to actions taken by consumers to reduce adverse environmental impacts and decrease the utilization of natural resources throughout the lifecycle of a product, behavior, or service (Mukendi et al. 2020; White, Habib, and Hardisty 2019). Its explicit formulation was first introduced in the 1970s (Osbaldiston and Schott 2011; Peattie 2010; Trudel 2018), but has since evolved significantly, coinciding with an extensive body of literature comprising contributions from a wide range of social and physical science disciplines (Burgess et al. 2003; Peattie 2010). The contemporary understanding holds a rather holistic perspective, viewing sustainable consumption as a multifaceted process strongly influenced by consumer values, norms, and habits, while also being highly complex, diverse, and context-dependent (Peattie 2010; Sarigöllü 2008; Zukin and Maguire 2004). In alignment, modern conceptualizations and promotional tactics consider a broad scope of challenges, driving factors, and potential routes (Trudel 2018; White, Habib, and Hardisty 2019).

However, the most consistent conclusion emerging from the research literature pertains to sustainable consumers' great heterogeneity, and that their behaviors cannot be explained by a single factor or effectively influenced through a one-size-fits-all approach (Nilssen, Bick, and Abratt 2018; Ochoa 2010; White, Habib, and Hardisty 2019). Thus, practitioners need to understand the specific context and underlying psychology to effectively promote sustainable consumer behavior (Osbaldiston and Schott 2011; Trudel 2018; White, Habib, and Hardisty 2019).

Over the years, traditional marketing and its emphasis on continuous growth and aspiration to satisfy consumer demands has played a critical role in shaping consumption behaviors contributing to environmental degradation (Csikszentmihalyi 2000; Peattie and Peattie 2009; White, Habib, and Hardisty 2019). The conventional marketing mindset encourages mass consumption, often overlooking the long-term environmental consequences of promoting resource-intensive lifestyles (Csikszentmihalyi 2000), while simultaneously reducing the lifespan of products (Sharma 2021). Along with marketing's impact on the environment and consumers' shift in awareness and attitudes, a growing need and realized value for green marketing has emerged in recent years (Sharma 2021). Companies are changing their strategies and functions, and it is essential to adapt to this new environment to leverage long term benefits, as well as fostering sustainable consumption behaviors (White, Habib, and Hardisty 2019). Consequently, there is a notable increase in green marketing spending (Minton et al. 2012), further emphasizing the importance for marketers to understand which communication activities are effective, and which are not (White, Habib, and Hardisty 2019).

1.2 Problem Discussion

The fashion industry’s sustainability issues have come under intense scrutiny in recent years, challenging traditional consumption and production practices (Grappi et al. 2024; Mukendi et al. 2020). Although sustainable fashion emerges to address these concerns, a critical challenge remains: *how to attract consumers who are not yet engaged with sustainable clothing?*

While previous research has primarily highlighted factors such as enhancing knowledge and providing economic logic to shape sustainable consumer behavior, emotional and intuitive factors have later gained recognition to be even more influential in practice (Carrus, Passafaro, and Bonnes 2008). It has been further suggested that both negative and positive emotions can

predict sustainable behaviors (Vining and Ebreo 2002; White, Habib, and Hardisty 2019; Yan, Keh, and Murray 2023), and an overall increased engagement in sustainable behaviors can be achieved by coupling cognitive and affective processes (Carrus, Passafaro, and Bonnes 2008). Nonetheless, literature remains equivocal on the absolute effect of negative and positive emotions on sustainable consumer behavior (Grappi et al. 2024), with most works focusing on the sole negative and positive framing rather than examining specific emotions in the message (Griskevicius, Shiota, and Nowlis 2010). Thus, research has not yet completed the full picture on how and in what instances emotions can persistently promote sustainable consumer behavior.

It is against these premises that this research is situated. Indeed, some literature points to the potential of emotional appeals in promoting sustainable behavior (Grappi et al. 2024; Peattie 2010; White, Habib, and Hardisty 2019). However, existing research also suggests that simply applying lessons from other sustainable consumption contexts, like organic food, may not be effective for other sustainable consumption contexts (McDonagh and Prothero 2014; Ochoa 2010; Ritch 2015). As of yet, this establishes a relevant gap in the literature regarding studies that examine how coupling environmental claims with specific emotional appeals can influence consumer intentions, especially within sustainable fashion (Chen et al. 2022). Addressing this gap is essential for developing marketing strategies that resonate with consumers on an emotional level and thereby promote sustainable consumption in the fashion context.

1.3 Research Purpose and Research Question

This research intends to investigate the role of emotions in promoting sustainable consumer behaviors in fashion. As societal interest in sustainable fashion continues to rise, this research seeks to offer actionable insights for marketers and practitioners on developing effective green

marketing communications that enhance purchase intentions. Therefore, the following research question has been formulated:

> "*Does coupling environmental claims with emotional appeals in marketing increase the likelihood of consumer purchase intentions within sustainable fashion consumption?*"

The contemporary paper constitutes one part of a greater research effort investigating the overarching question above, including four studies which examined the specific emotions of hope, pride, guilt and shame. Specifically, this following study will focus on the role of the emotion of hope in shaping sustainable consumer responses.

2. Theoretical Background and Hypotheses Development

2.1 Sustainable Consumer Behavior in Fashion

Sustainable consumer behavior is a well-explored research domain that dates back to the 1970s (Osbaldiston and Schott 2011; Peattie 2010; Trudel 2018). It investigates the actions, or inactions, of consumers aimed at reducing their adverse environmental impacts and minimizing the utilization of natural resources throughout the lifecycle of a product, behavior, or service (Mukendi et al. 2020; White, Habib, and Hardisty 2019). These actions can take various forms, such as opting for products with sustainable features that are sustainably sourced and produced, voluntarily cutting back on one's initial consumption, or disposing products in a sustainable manner (White, Habib, and Hardisty 2019).

The extensive body of literature on the subject indicates a concept of great complexity, often defined as a multifaceted process strongly influenced by consumer values, norms, and habits, while also being highly complex, diverse, and dependent on context (Peattie 2010; Sarigöllü 2008; Zukin and Maguire 2004). It is therefore no wonder that the state of art knowledge on

sustainable consumer behavior comprises a vast research landscape (Trudel 2018), including an amalgamation of contributions and theories from a wide range of disciplines (Burgess et al. 2003; Peattie 2010). In fact, the most consistent conclusion among scholars is that sustainable consumers are highly heterogeneous, and that their behaviors cannot be explained by one overarching theory or effectively influenced through a one-size-fits-all approach (Nilssen, Bick, and Abratt 2018; Ochoa 2010; White, Habib, and Hardisty 2019).

Aligned with this understanding, researchers have frequently emphasized the importance of considering the underlying psychological factors specific to the intended context when promoting sustainable consumer behavior (Ochoa 2010; Trudel 2018; White, Habib, and Hardisty 2019). In other words, one must shift focus from the broad domain of sustainable consumer behavior to the narrower, less-explored context of sustainable consumer behavior in fashion to obtain more relevant insights in terms of the unique sustainable fashion context (McDonagh and Prothero 2014; Mukendi et al. 2020; Ochoa 2010; Ritch 2015).

Despite, it was not until 2008 that sustainable fashion consumption appeared in literature as a distinct subarea (Mukendi et al. 2020), separate from other commodity product categories that had previously dominated the sustainable consumption research (McDonagh and Prothero 2014). While still an emerging field, the steady increase in academic articles since remark a mounting interest in the domain (Mukendi et al., 2020). Similarly, consumer demand for sustainable fashion continues to rise (Dhir et al. 2021). However, not without the presence of the well-documented attitude-behavior gap (Mukendi et al. 2020). This gap manifests uniquely in the sustainable fashion context, in which factors such as how people actually use clothing (Khan et al. 2023), pressures to follow the latest fashion trends, and financial constraints that make some unable to afford sustainable fashion also play role (Mukendi et al. 2020).

Rather than attributing responsibility solely to consumers, literature highlights several barriers inhibiting sustainable fashion consumption, including lack of accessibility, visibility, transparency, and convenience (Han, Seo, and Ko 2017; Khan et al. 2023), which may leave consumers without the time, ability, or motivation to put additional effort into finding sustainable fashion (Perry and Chung 2016). Adding to these barriers are common consumer perceptions of sustainable fashion as being premium and exclusive (Han, Seo, and Ko 2017; Henninger, Alevizou, and Oates 2016), while at the same time unfashionable and of inferior quality (Harris, Roby, and Dibb 2016; Mukendi et al. 2020). Collectively, these barriers and misconceptions create tensions between consumers' values, desires, commitments, and resources, limiting a broader adoption of sustainable fashion (Henninger, Alevizou, and Oates 2016).

Focusing on consumer drivers, the desire to express oneself, increased awareness, subjective knowledge, social norms and social pressures, are recurring in literature as factors driving sustainable fashion consumption (Mukendi et al. 2020). However, it has been noted that social pressures and norms only function as drivers for non-converted consumers as already converted sustainable fashion consumers do not need further convincing of such (Kang, Liu, and Kim 2013). In alignment, previous purchases of sustainable fashion and attitudes towards sustainable fashion consumption have been suggested to greatly influence purchase intentions (Cowan and Kinley 2014). On the contrary, the consumption literature suggests that individuals do not put environmental aspects into consideration when consuming clothes (Joy et al. 2012). Subsequently, contradictory findings indicate an ambiguity regarding which consumer characteristics and drivers, have the greatest influence within which scenarios (Mukendi et al. 2020).

Similarly, the advice on promoting sustainable fashion consumption is at best conflicted in literature, providing an array of suggestions in relation to this conundrum (Mukendi et al. 2020). Tactics include promoting fashionability (Beard 2008; Blanchet 2017), educating consumers about sustainable fashion (Harris, Roby, and Dibb 2016; Mukendi et al. 2020), highlighting hedonic benefits (Beard 2008; Visser, Gattol, and Van der Helm 2015), positioning sustainable fashion consumption as a social norm (Kim, Lee, and Hur 2012), and utilizing celebrity endorsement (Blanchet 2017; Kang and Choi 2016). Another more general recommendation proposes incorporating emotional and rational appeals, both positive and negative, into promotional messages to heighten purchase intentions for sustainable fashion (Khan et al. 2023; Kim and Jin 2019).

2.2 Environmental Claims

Environmental advertising is commonly used in the fashion industry, and consumers tend to be highly receptive to such when claims resonate with their personal values and beliefs with regard to environmental protection (Kong, Witmaier, and Ko 2021). However, growing consumer skepticism towards environmental claims has become an important factor to consider in recent years, especially in relation to greenwashing where companies overclaim, misrepresent or falsely exaggerate their environmental practices (Akturan 2018).

There is limited research on classifications of environmental claims, even though they have increased in popularity (Teona, Ko and Kim 2020). In 1993, Carlson, Grove and Norman (1993) made a classification scheme by investigating environmental advertisements, resulting in four types of claims: (1) product orientation (i.e., claims related to the product itself), (2) process orientation (i.e., claims of the production process of the products), (3) image orientation (i.e., creating an environmental image of the company itself), and (4) environmental fact (i.e., claims

that do not relate to the company or its products, solely stating facts about the environmental degradation in general). The first two types of claims, product orientation and process orientation, are more substantive, thus expressing more tangibly what the company does in terms of environmental sustainability (Chan 2000). The latter two, image orientation and environmental facts, are more associative as they are less tangible and do not explicitly convey what the company does for the environment but rather creates an environmentally friendly facade (Chan 2000; Teona, Ko and Kim 2020).

As consumers tend to respond better to claims that are more specific in details about the environmental attributes of the product, easy to understand and supported by information of the benefits, the more substantive claims appear to generate more favorable reactions due to its tangibility compared to the associative claims (Chan 2000). Carlson, Grove and Kangun (1993) had differing findings related to credibility and misleading perceptions of environmental claims and found that the associative claims were perceived as more credible and less misleading than the substantive ones. Similarly, Kim and Damhorst (1999) found that claims regarding environmental activism and creating an environmental image for the company had more positive responses than product-related claims. A later study by Phau and Ong (2007) identified contradicting findings, that product-related claims were perceived more credible with more positive responses than cause-related claims. The researchers posed the potential explanation that modern consumers might have become more skeptical towards claims regarding the core business and claims that involve the company's environmental image compared to the consumer's view on the matter in 1999 (Phau and Ong 2007).

Similarly to the literature of environmental claim classifications, research within the specific context of sustainable fashion is limited. However, the existing body of research implies that

substantive claims (product and process orientation) tend to yield more positive responses compared to associative claims (image orientation and environmental facts) within the sustainable fashion domain (Mukendi et al. 2020; Phau and Ong 2007; Teona, Ko and Kim 2020; Yan, Hyllegard and Blaesi 2012).

The importance of information has been confirmed by previous research suggesting that educating consumers about the sustainability of products or actions can promote pro-environmental behaviors (Osbaldiston and Schott, 2011). However, as stated by Abrahamse et al. (2005) and McKenzie-Mohr (2000) to promote long-term pro-environmental change, providing information alone is not sufficient. Therefore, combining knowledge with other activities may be a more effective strategy to encourage consumers to engage in sustainable behavioral change (Abrahamse et al. 2005; McKenzie-Mohr 2000).

2.3 Emotional Appeals

Emotions arise as a reaction to the environment (Carrus, Passafaro, and Bonnes 2008) when an event or object is perceived as relevant to an individual's concerns and values (Brosch and Steg 2021; Zeelenberg et al. 2008). As emotions adhere to the value given to an event or object, they assist the learning of how to realize those and initialize motivation accordingly (Gifford 2002; Zeelenberg et al. 2008). Thus, emotions operate interconnectedly, not only with cognition as they alter the selection and interpretation of information, but also with actions as they initiate motivational action tendencies and create memory traces that steer future thoughts and behavior (Brosch and Steg 2021). According to Brosch and Steg (2021), this interconnection between emotion, cognition, and behavior, highlights emotions impact on human thoughts and actions across various dimensions, thereby further underscoring their important role in shifting behaviors toward sustainability. In accordance, it has been suggested that emotions operate

lawfully, making their outcomes rather consistent and fairly foreseeable (Frijda 2007). Consequently, it is possible to account for the different emotions' impact on the decision-making process (Zeelenberg et al. 2008), which thereby opens up for the opportunity to further leverage this understanding.

In advertising, emotional appeals has been used to motivate consumers to make a purchase decision by evoking feelings rooted in underlying symbolic, social, or psychological desires (Kim, Jeon and Lee 2020). It is one of the most researched types of message appeals in literature (Kapoor, Balaji and Jiang 2021), and is frequently suggested to be a powerful tool to employ in the context of marketing to influence behaviors (Achar et al. 2016; Andrade 2015). Advertisements can either aim to evoke positive or negative emotions in the recipient (Florence et al. 2022). In regard to sustainable behavior, it has been proposed that both types of emotions can predict sustainably aligned actions (Vining and Ebreo 2002; White, Habib, and Hardisty 2019; Yan, Keh, and Murray 2023).

Positive emotional appeals influence consumer behavior uniquely, with distinct cognitive and motivational mechanisms shaping their effects (Griskevicius, Shiota, and Nowlis 2010). Negative emotional appeals motivate corrective behavior by creating an emotional imbalance that can be rectified through desired actions (Brennan and Binney 2010). To succeed, negative emotional appeals must balance intensity in order to ensure the scope of the problem aligns with the audience's capacity to act (Brennan and Biney 2010). However, similar to other behavioral drivers, emotions do not consistently affect human behavior, nor do they influence all individuals uniformly or alter all behavior in the same way every time (Brosch and Steg 2021). Additionally, three main streams of literature on emotion (i.e., affective dynamics, mixed emotions, and meta-emotions) suggests that there are several different interrelations between

emotions, making it likely that more than one emotion occurs at the same time (Berrios 2019). In alignment, strategies leveraging positive and negative emotions have favorably promoted sustainable behaviors in some instances, but in others failed to encourage the desired behaviors or even encouraged opposing behaviors unintendedly (Chapman, Lickel and Markowitz 2017). Therefore, it is particularly necessary to consider the context under which the emotions promote sustainable behaviors (Brosch and Steg 2021).

Literature persists equivocal on the absolute effect of negative and positive emotions on sustainable consumer behavior (Grappi et al. 2024), with most works focusing on the sole negative and positive framing rather than examining specific emotions in the message (Griskevicius, Shiota, and Nowlis 2010). Emotions can be portrayed in a positive or negative light, depending on whether the message is framed to highlight loss or gain (Zubair et al. 2020). In regard to sustainable consumption behaviors in fashion, some works have argued positively framed messages supremacy over negatively framed messages (Grappi et al. 2024). However, the message framing literature is at best conflicted regarding the most effective framing technique, suggesting that the negative and positive emotions being framed may determine the message framing effects (Baek and Yoon 2017). Although both framing techniques can be effective, they are likely to create different results (Brennan and Binney 2010).

2.3.1 Hope

Hope is a positive, future-oriented emotion that emerges when a desired outcome or event is uncertain but still achievable (MacInnis and De Mello 2005; Winterich and Haws 2011). Hence, hope is considered to be a positive anticipatory emotion as it highlights the satisfaction derived from imagining the realization of a future outcome or event, even when its attainment is not guaranteed (Baumgartner, Pieters and Bagozzi 2008). It is further argued that when individuals

believe in the likelihood of a positive outcome, hope is expected to have motivational effects and could support the formation of behaviors (Baumgartner, Pieters and Bagozzi 2008; Corn, Feldman and Wexler 2020).

In the context of climate change, the relationship between hope and motivation is particularly relevant as the threat and uncertainty about our planets' future survival often triggers feelings of anxiety and hopelessness (Li and Monroe 2019; Pihkala 2017). In these circumstances, cultivating hope for a brighter future may function as an effective motivator, encouraging individuals to take meaningful action on environmental challenges on a global scale (Ojala 2012).

Research on hope appeals in literature is notably limited (Chadwick 2015), even so within the specific context of sustainable fashion. However, studies on hope within sustainability suggest its potential in other contexts. For instance, research within the field of green energy revealed that people who are generally feeling more hopeful have a higher willingness to pay more for green energy, emphasizing the significance of instilling hope for the climate crisis to encourage pro-environmental behaviors (Pleeging et al. 2021). Further studies within the contexts of sustainable development and education for sustainable development have emphasized the importance of hope and its correlations to pro-environmental behaviors (Grund and Brock 2019; Kerret, Orkibi and Ronen 2016; Ojala 2012; Ojala 2017). Given that the existing body of literature states that hope has a positive influence on pro-environmental behaviors (Kerret, Orkibi and Ronen 2016; Ojala 2012; Ojala 2015; Stevenson and Peterson 2015), a potential possibility could be that the emotional appeal of hope in a sustainable fashion advertisement can have a similar positive influence on consumer behaviors such as purchase intentions. Hence, the following hypothesis was formulated:

H1a: Coupling an environmental claim with the emotional appeal of hope in advertisements will increase consumer purchase intentions within sustainable fashion compared to advertisements with only an environmental claim.

Elaborating on the review of the current body of literature on hope, the concept of self-efficacy is often discussed as a related but distinct concept (Corn, Feldman and Wexler 2020; Magaletta and Oliver 1999). Albert Bandura is one of the most prominent researchers of the concept with his development of the Self-Efficacy Theory (Bandura 1977), which later became part of the broader concept of Social Cognitive Theory (Bandura 1991). Self-efficacy is the belief in one's own ability to carry out the essential actions to accomplish particular tasks or goals (Bandura 1977; Corn, Feldman and Wexler 2020; Zimmerman 2000). A crucial component of self-efficacy is personal agency, as it gives the individual an overall sense that they can control what happens in their lives, resulting in higher levels of confidence in one's own abilities and enhances the likelihood of making decisions that lead to meaningful change (Bandura 1991; Code 2020). According to Bandura (1982), people's thoughts, feelings, and behaviors in a variety of contexts are greatly influenced by their sense of self-efficacy, which also affects their motivation, ability to bounce back from setbacks, and general success in accomplishing goals.

Personal agency plays a significant role in both concepts of hope and self-efficacy, as they center on individuals' belief in their own abilities (Li and Monroe 2019). However, the agency component in hope can provide confidence that extends beyond specific circumstances and encompasses a broader belief in one's ability to achieve goals across various domains of life (Snyder et al. 1991). In contrast, self-efficacy is rather argued to be situational specific, concentrating on confidence in reaching a particular outcome within a specific context and is

essential in turning one's feelings of capability into purposeful actions (Snyder, Rand, and Sigmon 2017).

According to Bandura (1991), the higher self-efficacy an individual has, the more likely they are to pursue actions that they believe will result in desired outcomes. Given that self-efficacy is deeply tied to motivation and goal-directed behavior (Zimmerman 2000), it is plausible that self-efficacy mediates the relationship between emotional appeals of hope and purchase intentions. Therefore, the following hypotheses has been formulated:

H1b: Self-efficacy will act as the mediating effect bridging the emotional appeal of hope and purchase intentions within sustainable fashion.

3. Methodology

3.1 Research Method

In the field of consumer behavior there are two primary strands of conducting research; qualitative and quantitative (Ahmad et al. 2019). Whereas the qualitative research builds upon verbal narrative such as written or spoken data, the quantitative research stems from statistical or logical observations to establish findings (Leavy 2017). This research undertook a quantitative approach, building evidence in regard to the developed hypotheses by examining relationships between variables that are numerically measured and analyzed (Saunders, Lewis, and Thornhill 2019). Since the purpose of this research was to investigate how the coupling of environmental claims and emotional appeals in advertisement influenced sustainable purchase intentions, a quantitative research approach was appropriate as they are frequently used to explore correlations, associations and causal relationships (Leavy 2017).

3.2 Research Design

This research employed a survey-based experimental design to assess consumer responses to emotional appeals in fashion advertising, specifically in the context of sustainable consumption behaviors. By using structured survey techniques, the quantitative analysis facilitated the testing of hypotheses related to behaviors, thus enabling a clear, evidence-based assessment of the influence of different emotions in fashion advertising (J. Park and M. Park 2016). Further, a quantitative research design in terms of a survey, enables researchers to gather a vast amount of data from a large number of respondents (Leavy 2017).

The research design involved experimental testing to establish casual links between emotional appeals and sustainable consumer behavior, leveraging one control group and four experimental groups for precise observation. Experimental designs allow for structured comparisons across conditions (Kirk 2013), making them suitable for research investigating how different emotional manipulations (e.g., guilt, pride, hope, and shame) influence consumer purchase intentions in the sustainability contexts. Given the research's focus on “how” emotions affect behavior, this design facilitated a clearer measurement of these effects compared to simpler survey methods, which would lack the depth necessary for capturing complex behavioral responses (Apuke 2017). By assigning each experimental group a specific emotional manipulation alongside an environmental claim, this research aimed to isolate and analyze the impacts of each emotional appeal on consumer decision-making regarding sustainable fashion.

4. Method

4.1 Primary Data Collection

There are two sources for researchers to obtain data when conducting quantitative research, either in terms of primary data collected by the researchers themselves, or secondary data gathered by other researchers which can be found in databases (Easterby-Smith et al. 2021). The advantage of gathering primary data is that researchers can obtain data specific and best suited to their research purpose, and the method of data collection varies based on the research approach, whether qualitative or quantitative (Hox and Boeije 2005).

For this research, primary data was gathered through a structured survey, a data collection technique well-suited for quantitative research as it enables efficient collection of responses from a large population, making it easier to generalize findings (Apuke 2017). Since this research followed a survey-based experimental design, this method allows for systematic measurement of respondents' behaviors in response to emotional manipulations, with each participant exposed to distinct emotional appeals in controlled conditions (Kirk 2013).

Cross-sectional and longitudinal methodological designs constitute the most common ways of conducting survey research (Leavy 2017). When undertaking research for academic purposes, it is usual to adhere to the former, as these studies often are under limited time constraints (Saunders, Lewis and Thornhill 2019). Cross-sectional designs involve obtaining data at a particular point of time, whereas longitudinal designs obtain data at numerous times to measure potential changes that may occur (Leavy 2017). This research has employed a cross-sectional design due to the purpose of the research as well as the restricted timeframe.

4.2 Sampling Process

In quantitative studies, a sample constitute the subset of a population used to represent the entire group, enabling researchers to draw generalizable conclusions from a manageable number of respondents (Groves et al. 2009). For this research, a convenience sampling method was used, which is described as the data collection process that results from a population that is more effortlessly reached by the researcher (Golzar, Noor, and Tajik 2022). This method may be appropriate in instances where variations in the population are small, however, it can cause bias in the sample if there are larger variation in the population (Saunders, Lewis, and Thornhill 2019). In circumstances where the latter hold true, it is worth mentioning that interpretations could need to be made with caution.

The survey was distributed online via a Web link through various channels, aiming to reach a minimum of 250 respondents, without targeting a specific demographic. The primary distribution channels included WhatsApp text messages and Instagram stories, which facilitated broad and rapid dissemination to prospect respondents. A total of 305 respondents participated in the experimental survey. Of these, 12 respondents did not provide a response to the gender question. Among the remaining 293 respondents, 1 (0.34%) preferred not to disclose their gender, 4 (1.37%) identified as non-binary, 113 (38.57%) identified as male, while 175 (59.73%) identified as female. The average age, calculated based on the 293 respondents who provided this information, was 28.44 years. The respondents represented a diverse range of nationalities, where the majority were Portuguese (122), followed by Italians (89) and Swedes (65). A smaller number of participants identified as German (5), Norwegian (4), Brazilian (2), Spanish (1), Dutch (1), Finnish (1), Lebanese (1), and a dual nationality of Danish and Portuguese (1). Additionally, 13 respondents did not complete the survey, leaving this question unanswered.

The survey was structured into five blocks (one control and four experimental), and each participant was randomly assigned to view one of five advertisement conditions, with an equal 20% probability of being assigned to any block. In experimental tests, researchers seek to draw conclusions from the effects of the experimental manipulations, therefore its essential that the various groups are comparable (Leavy 2017). Random assignment ensures that all groups are similar in every relevant aspect to the research except for their exposure to the intended intervention or manipulation (Saunders, Lewis, and Thornhill 2019). For the scope of this research, a randomization was implemented to ensure a balanced representation across each of the blocks. The aim of the survey was to attain a minimum of 50 respondents for each block. This was to ensure that enough data was gathered for each of the conditions to allow for a meaningful comparison between each of the experimental and the control group.

4.3 Procedure

The experimental-based survey was carried out through Qualtrics, an online platform software tool which allows for the condition of randomization, presentations of the stimuli, as well as comprehensive data collection from a large number or respondents (Saunders, Lewis, and Thornhill 2019). In addition, the Web link enabled both Web and mobile use, facilitating the respondents with the possibility to conduct the survey whenever or wherever they preferred, taking approximately five minutes to complete.

Across each respective advertisement group, an experimental stimulus was developed to ensure controlled and comparable conditions. The environmental claim was constructed with a short, product-related environmental claim with consideration to current literature, suggesting that a substantive claim tend to generate more positive responses within the sustainable fashion domain (Mukendi et al. 2020; Phau and Ong 2007; Teona, Ko, and Kim 2020; Yan, Hyllegard

and Blaesi 2012). Thus, the environmental claim exposed in the survey stated; *"Made with 100% organic cotton."* and was included in, and common for, all four experimental groups as well as the control group. Similar for all five conditions was the exclusion of a brand or company name. Since brand attitudes, brand attachments and perceptions of corporate social responsibility can influence customer purchase intentions (Kong, Witmaier and Ko 2021), no brand name or real company was included in the research to avoid confounding effects that are company or brand related. The only discrepancy exposed to the respondents between the five groups were the emotional appeal manipulations of hope, pride, guilt and shame, each distributed separately among the experimental groups.

At the very beginning of the survey, respondents were given a brief description of the context and purpose of the research, without explicitly disclosing the exact constructs being studied to avoid any potential bias. Respondents were then presented with a consent form explaining the voluntary nature of participation, data privacy and anonymity guarantees. To proceed to the questions, respondents had to agree to the consent form and were then randomly assigned to one of the five advertisement blocks. All the advertisements displayed a white cotton t-shirt with a nature-inspired background and the environmental claim. For the experimental groups, an additional sentence was added to the advertisement consisting of each respective emotional appeal. Respondents could view the advertisement for as long as they preferred with the option to go back to it at any point of the survey.

After viewing the advertisement, respondents answered to questions in three different facets. The first facet consisted of fifteen rating questions by which respondents were asked to indicate how strongly they disagree or agree with each statement regarding the advertisement on a Likert scale from one to seven. Statements pertained to purchase intentions, the emotional appeals,

and the predicted mediating effects. The second facet included two rating questions considering how often respondents engage in sustainable behaviors from never to always, again on a Likert scale from one to seven. Lastly, the third facet contained of four questions pertaining to respondents' demographics, including gender, age, nationality as well as occupation. The last and fifth question in this facet constituted an attention check to ensure that the respondents have been paying attention to the questions. At the very end of the survey, respondents were thanked for their participation.

4.4 Data Analysis

Cleaning of Data. In order to ensure accuracy in the results, the data was cleaned before performing any analyses. After exporting the survey responses from Qualtrics in an Excel format, 42 entirely blank rows without any responses were removed. Given the experimental survey-based design, the data was organized into five sections once exported to Excel, each corresponding to one of the five advertisement groups (the control group and the four emotional appeal groups), with each section containing identical questions. To streamline the dataset and facilitate analysis, responses to the same question across the sections were consolidated into single columns. For example, all answers to the first question, across the five sections, were combined into one column labeled "Question 1", and so forth. Next step included reorganizing in terms of transferring data corresponding to each advertisement group into separate sheets. This made the data easier to manage and analyze.

Once all responses were sorted and group assignments were finalized, the dataset was thoroughly reviewed to confirm consistency across it. When reviewing the obtained data, it became evident that some respondents did not finalize the survey, and therefore some data was missing. This research opted for the pairwise exclusion method to handle missing data in the

statistical analyses. This choice is grounded in the practical necessity of maximizing the sample size while minimizing data loss. According to Pallant (2011), pairwise exclusion excludes cases only from specific analyses for which they have missing data but retains them for other analyses where their data is complete. In this case, this approach was preferred as it allowed for the usage of as much of the available data as possible, thereby preserving statistical power and avoiding the unnecessary limitation of the sample size (Pallant 2011). Furthermore, four respondents were removed from the dataset as they failed the attention check, as well as one respondent being removed due to their obviously unserious answers. The overall data cleaning process resulted in a total sample of 305 respondents, with 47 respondents being removed from the original dataset. Subsequently, it was concluded that the dataset was appropriately prepared for proceeding with statistical analyses.

Cronbach's Alpha. Cronbach's alpha provides a measure of the internal consistency of a test or scale by determining how closely related a set of items are and is measured in values between 0 and 1 (Tavakol and Dennick 2011). A recognized standard for evaluating internal consistency suggest a minimum acceptable threshold of 0.7 for social sciences, while values above 0.9 may suggest item redundancy (Tavakol and Dennick 2011). In this research, Cronbach's alpha was used to assess the consistency of survey items measuring purchase intentions.

Analysis of Variance (ANOVA). Analysis of Variance (ANOVA) is a statistical method used to compare the means of two or more groups to determine if there are significant differences between them (Carnegie Mellon University 2024). ANOVA calculates the ratio of variance between groups to the variance within groups, producing an F-statistic where a larger F-statistic suggests larger differences among group means (Roberts and Russo 1999). The p-

value indicates the probability of observing these differences under the null hypothesis that all group means are equal, where a small p-value (typically, and for the purpose of this research, <0,05) leads to rejection of the null hypothesis (Carnegie Mellon University 2024).

Analysis of Covariance (ANCOVA). Analysis of covariance (ANCOVA) is an extension of analysis of variance (ANOVA) that examines differences between groups while statistically controlling for one or more continuous variables, known as covariates (Miller and Chapman 2001). By removing the variation in the dependent variable caused by these covariates, ANCOVA enhances the sensitivity of the F-test, increasing the likelihood of detecting significant group differences (Pallant 2011). For this research, ANCOVA was particularly well-suited as it accounted for respondents' current sustainable behaviors, measured through Q2_1 and Q2_2, as covariates. This adjustment reduced error variance and ensured that any observed differences in purchase intentions were not confounded by pre-existing behaviors. In interpreting the output from ANCOVA, the Levene's Test of Equality was performed to determine if the assumption of equality of variance was violated. A non-significant result ($p > .05$) indicates equal variances, meeting the assumption, while a significant result ($p < .05$) suggests a violation (Pallant 2011, 309). In the analysis, interpreting the Levene's Test of Equality results was crucial to ensure the validity of the ANCOVA model, as these rely on the homogeneity of variances for accurate comparisons between groups.

Hayes' PROCESS Macro (model 4). The Hayes' PROCESS macro (model 4) mediation analysis is a statistical method that examines whether a mediator variable explains or accounts for the relationship between an independent variable (X) and a dependent variable (Y) (Hayes 2017). It computes direct, indirect, and total effects, providing confidence intervals to evaluate mediation significance (Abu-Bader and Jones 2021). Mediators, which enhance the

complexity of relationships, help to clarify how the variables influence one another and contribute to the development of new theoretical frameworks (MacKinnon, Fairchild and Fritz 2007). This method was particularly advantageous for this research as it highlighted indirect pathways and their significance, aligned with the study's aim to understand deeper psychological mechanisms.

4.5 Measures and Constructs

When more than one manipulation is tested, there are a separate experimental group respective to each test (Saunders, Lewis, and Thornhill 2019). The following sections pertain to disclose the different variables for the between-subject analyses. By specifying the uniform set of variables used across all studies, the researchers can better convey what each represent, how they have been measured and why they are appropriate in regard to the established hypotheses.

Dependent Variable. The primary dependent variable used for the main analyses, pertained to the developed hypotheses, constituted of respondents' purchase intentions. The construct was measured on a seven-point Likert scale and operationalized in two items which assessed the respondents' intentions to buy the product as a direct response to the advertisement they had just viewed. For example, one statement was formulated as followed; *"If I need a new t-shirt, I would choose this one over other options".* The response categories adhered to the seven-point Likert scale outlined by Saunders, Lewis, and Thornhill (2019), to better capture nuances of responses, ranging from strongly disagree to strongly agree. In regard to the formulation of each hypothesis, it was appropriate to set purchase intentions as the dependent variable to explore how changes in other variables would affect respondents purchase intentions. Given the aim of this research, the choice to set purchase intentions as the dependent

variable allowed for a precise examination of how variations in emotional appeals and message framing directly impact respondents' likelihood to purchase the product.

For the manipulation checks, which do not consist of any main outcome variables but rather additional variables to assess the success of the experimental manipulations, the dependent variable was set to respondents reported sense of each emotion. The variables were operationalized by asking the respondents to which extent they sensed the intended emotions of hope, pride, guilt and shame after being exposed to the advertisement, with one item per emotion and again measured on a seven-point Likert scale ranging from strongly disagree to strongly agree. For example, the statement for shame was formulated as followed; *"The ad made me feel a sense of shame"*. The aim was to understand how effectively the advertisements portrayed the intended emotions.

Independent Variable. The independent variable consisted of the advertisement type that each respondent had been exposed to, either one of the four experimental advertisements or the control advertisement. In the development of the experimental test, hope, pride, guilt and shame were the four emotions targeted. These emotional appeals were operationalized using somewhat subtle messages referring to the intended emotion, but also by explicitly mentioning the emotion by name. For the positive emotions of hope and pride, the messages were framed to encourage respondents to feel either hope or pride through the imagined purchase of the t-shirt. For example, in the advertisement leveraging the pride appeal, the message was constructed as followed; *"Wear the change you believe in. Feel proud knowing your style resonates with those who care about the planet."*. Conversely, for the negative emotions, guilt and shame, the messages were framed by encouraging respondents to avoid feeling guilt or shame through an imagined purchase of the t-shirt. For example, in the advertisement

leveraging the guilt appeal, the message was constructed as followed; *"Does your wardrobe align with your values? Some people feel guilty about their purchases, with this t-shirt you won't have to."*. Given the aim to examine how different emotional appeals in advertisements influence consumers' purchase intentions, advertisement type was set as the independent variable.

For further clarification, all five advertisements included the basic white t-shirt as well as the environmental claim which stated that the t-shirt was *"Made with 100% organic cotton"* to convey the claim in a neutral manner. The aim was to avoid eliciting any other emotional arousals stemming from the environmental claim itself.

Mediating Variables. The mediating variables were set based on the hypothesized mediators stemming from the literature review, self-efficacy for hope, social approval for pride, personal responsibility for guilt, and perceived responsibility for shame. Hence, the mediating variable was different for each of the studies, constituting the hypothesized mediators relevant to the emotional appeal assigned for each respective study. The mediating variables were operationalized by using subtle statements conveying their meaning, with one item per construct. The variables were measured by asking respondents to rate to what extent they strongly disagreed or strongly agreed with the statement using a seven-point Likert scale. For example, the statement for self-efficacy were constructed as followed; *"The ad made me feel confident in my ability to make purchase decisions that benefit the environment"*. Provided the research intent, the selected mediating variables facilitated the analyses of weather the predicted mediators were the underlying mechanisms bridging the relationship of their respective emotional appeal and purchase intentions.

Covariates. The covariates consisted of two items measuring respondents' current sustainable behaviors, common for all studies. Similar to the other items mentioned in the survey, these were also measured on a seven-point Likert scale, however, in a manner by which respondents were asked to rate their frequency of engaging in the specified behaviors, from never to always. For example, the first item was stated as followed; *"How often do you buy environmentally friendly products?".* These variables were included in analyses to explore whether observed differences in purchase intentions pertained to respondents' current sustainable behaviors.

4.6 Research Quality and Ethical Considerations

Research Quality. When assessing a quantitative research, validity and reliability constitute two core criteria to consider (Leavy 2017). Validity refers to "the extent to which a measure is actually tapping what we think it is tapping" (Leavy 2017, 113), whereas reliability refers to "the consistency of measurement in a composite variable formed by combining scores on a set of items" (Easterby-Smith et al. 2021, 120).

To address the concern of validity, the researchers used successful experimental designs from similar studies made by Rudd, Hildebrand, and Vohs (2018) and Yan, Keh, and Murray (2023) as benchmarks for carefully designing the emotion priming advertisements. By subtly mentioning the emotions by name mid-sentence, the aim was to reduce the risk of demand characteristics. By doing so, researchers can mitigate risks of respondents guessing the purpose of the study or assume what behaviors are expected of them and thereby adjust their responses accordingly or in the opposite direction (Nichols and Maner 2008). To further enhance the validity of the research, the random assignment of respondents to each advertisement condition helped mitigate potential bias and minimized the influence of confounding variables (e.g.,

individual differences in environmental attitudes or demographics). Supported by Leavy (2017), randomly assigning respondents to groups is a good way of preventing potential threats to internal validity. Randomization also allows for causal inferences to be made regarding the impact of different emotional appeals on purchase intentions.

For a survey to be valid it also has to be reliable (Saunders, Lewis, and Thornhill 2019), which makes reliability an important factor to consider when conducting quantitative research in terms of a survey-based experimental design. When including more than one item to measure the same construct, interitem reliability evaluates the extent to which the items jointly measure the same construct (Leavy 2017). There are a few reliability tests one may utilize to test internal consistency between items (Leavy 2017), with Cronbach's alpha being one of the most prominent methods used (Saunders, Lewis, and Thornhill 2019). To assess the reliability of the variables, this research applied this method with the minimum acceptable threshold of 0.7, a recognized standard for evaluating internal consistency (Bonett and Wright 2014).

In terms of overall data quality, tapping into both validity and reliability, attention checks have been demonstrated to be beneficial as they identify inattentive respondents (Abbey and Meloy 2017; Saunders, Lewis, and Thornhill 2019). Consequently, the survey included one attention check with the aim to favor research quality.

Ethical Considerations. The contemporary research adhered to five important principles of ethical practices. First, informed consent which refers to the voluntary option to either agree or refute to the participation of the research (Saunders, Lewis, and Thornhill 2019). Second, the right to withdraw, which provides respondents the opportunity to withdraw from the research at any given point (Govil 2013). Third, privacy and confidentiality, which ensures

avoidance of privacy invasions and confidentiality of the gathered research data relating to individuals (Leavy 2017). Fourth, guaranteed anonymity which refers to the protection of individuals' anonymity throughout the research (Govil 2013).

Fifth and lastly, scholars have increasingly questioned the ethicality of negative message framing, suggesting their potential to cause unnecessary discomfort (Grappi et al. 2024). Therefore, it was further important to consider the moral rightness of the message framing used in the respective advertisements. As positive message frames have gained momentum to be the more morally justifiable option to opt for (Grappi et al. 2024), the emotional appeals used in this research were framed positively regardless their inherent nature (i.e., negative or positive). This is further in line with the ethical principle of harm, stating that research should not cause any psychological harm to its respondents (Govil 2013).

5. Result and Analysis – Hope Study

The purpose of this study was to examine how the positive emotion hope influences consumers' purchase intentions within the sustainable fashion context. Considering the hypothesized function of hope appeals, it was predicted that hope would increase purchase intentions for sustainable fashion, with a mediating effect of self-efficacy (Figure 1). The total sample size of the study consisted of 131 respondents, with 68 in the hope group and 63 in the control group.

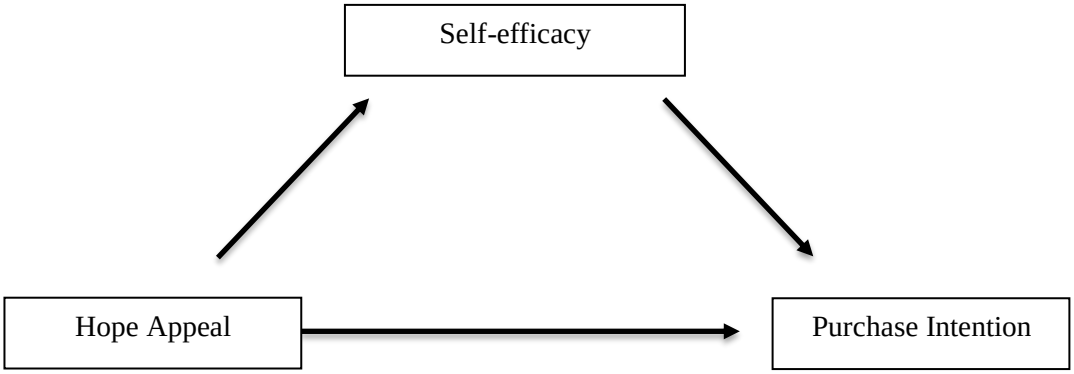

Figure 1. Conceptual diagram of the mediation model between the hope appeal, self-efficacy and purchase intention.

Reliability Analysis. Prior to conducting the main analyses, a reliability analysis using Cronbach's alpha was performed on the two items measuring purchase intentions to assess their internal consistency. The results indicated acceptable reliability ($\alpha = .78$) with a strong positive inter-item correlation ($r = .65$). As the items were measuring the same construct, a composite score for purchase intentions was created and used in the main analyses.

***Purchase Intentions*.** The one-way between-subjects analysis of variance (ANOVA) revealed a significant difference in purchase intentions between the hope group and the control group ($F(1,129) = 6.75$, $p = .010$). Respondents in the hope group reported higher purchase intentions ($M = 5.13$, $SD = 1.18$) compared to the control group ($M = 4.52$, $SD = 1.49$) (Figure 2). As the difference between the hope group and control group was statistically significant, these test results supported H1a.

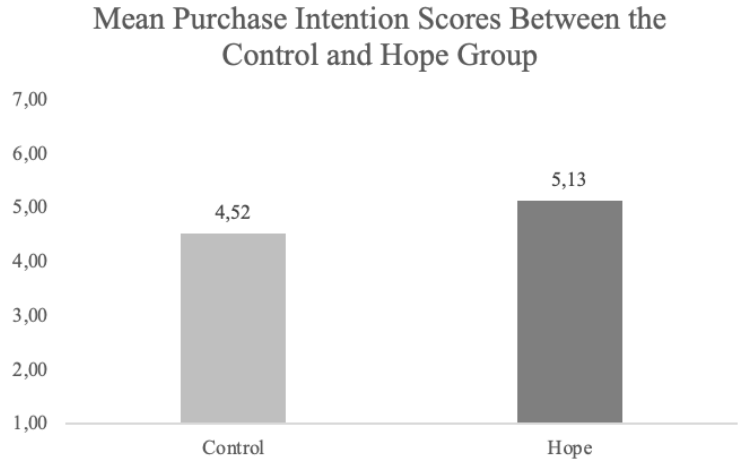

Figure 2. Mean purchase intention scores between the control and hope group.

Manipulation Check. Since H1a was supported by the one-way between-subject analysis of variance, it would be expected that the manipulation through the hope appeal was successfully inducing hope to respondents exposed to the associated advertisement. A second one-way between-subjects analysis of variance was conducted to explore if there were significant differences in the reported sense of hope across all five advertisement groups (control, hope, pride, guilt, and shame) to confirm if the manipulation of hope did succeed.

The results revealed no significant differences between the five groups ($F(4, 300) = 1.66$, $p = .160$). Respondents in the hope group reported the highest sense of hope ($M = 4.68$, $SD = 1.54$) compared to the control group ($M = 4.30$, $SD = 1.65$), as well as the pride group ($M = 4.25$, $SD = 1.69$), the guilt group ($M = 4.15$, $SD = 1.67$) and the shame group ($M = 3.95$, $SD = 1.67$). However, even if the hope group reported the highest average sense of hope as seen in Figure 3, the differences between the groups were not statistically significant, consequently indicating that the manipulation through the hope appeal in the advertisement was not successful. Hence, the previously mentioned results supporting H1a should be considered with caution as the manipulation of hope was unsuccessful posing limitations to result interpretations.

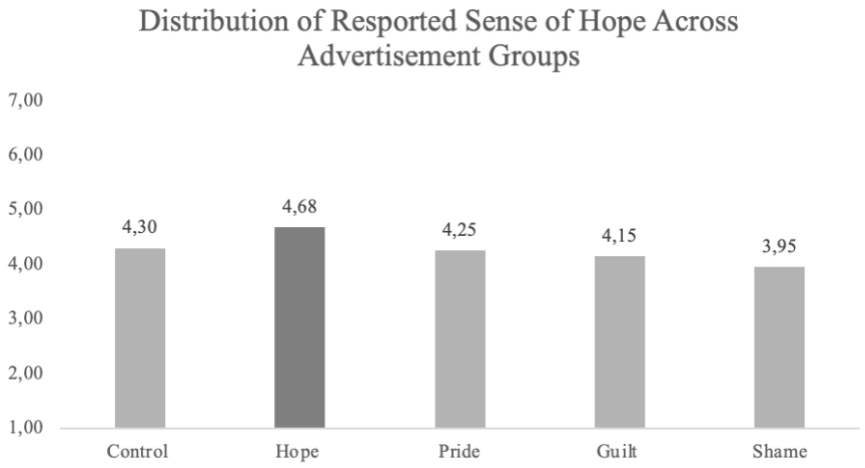

Figure 3. Distribution of reported sense of hope across advertisement groups.

Exploratory Covariate Analysis. To further explore plausible explanations to why there was a significant difference in purchase intentions between the hope group and the control group, an analysis of covariance (ANCOVA) was performed to investigate whether the significant difference remained after controlling for respondents' current sustainable behaviors. The advertisement type (control and hope group) acted as the independent variable (fixed factor) and purchase intentions as the dependent variable (DV). Two items (Q2_1 and Q2_2) in the survey measured current sustainable behaviors of respondents, which were included in the analysis as covariates.

Results of the Levene's test indicated violation of the homogeneity of variance assumption ($F(1,126) = 7.33$, $p = .008$), therefore a bootstrapped analysis of covariance with 5000 samples and bias-corrected accelerated (BCa) confidence intervals was conducted to acquire robust estimates. The bootstrapped analysis showed significant effects of advertisement type on purchase intentions, where the control group reported significantly lower purchase intentions than the hope group ($B = -0.52$, bootstrapped $SE = 0.22$, 95% BCa CI = [-0.98, -0.08], $\eta_p^2 = 0.04$). Since the confidence interval did not include zero, the results indicated that even after

controlling for covariates, the difference in purchase intentions remained significant between the hope group and the control group. The partial eta squared value indicated that the advertisement type explained 4% of the variance in purchase intentions, suggesting a small to medium effect size. When controlling for the covariates, the adjusted mean of purchase intentions in the hope group was higher (M = 5.12, bootstrapped SE = 0.14, 95% BCa CI = [4.84, 5.38]) compared to the control group (M = 4.59, bootstrapped SE = 0.19, 95% BCa CI = [4.20, 4.98]).

The analysis further revealed that the first item (Q2_1), measuring current sustainable behaviors in terms of how often respondents purchase environmentally sustainable products, was a significant predictor of purchase intentions (B = 0.35, bootstrapped SE = 0.10, 95% BCa CI = [0.14, 0.53], η_p^2 = 0.06). The partial eta squared value suggested that this covariate explained 6% of the variance in purchase intentions, indicating a medium effect size. As the bootstrapped confidence interval did not include zero, the effect was statistically significant. The second item (Q2_2), measuring current sustainable behaviors in terms of how often respondents consider sustainability as a factor when making purchase decisions, was not a significant predictor of purchase intentions (B = 0.14, bootstrapped SE = 0.11, 95% BCa CI = [-0.08, 0.39], η_p^2 = 0.01). The partial eta squared value indicated a small effect size. However, since the bootstrapped confident interval included zero, the effect was not statistically significant.

Mediation Analysis. To examine whether self-efficacy mediates the relationship between the emotional appeal of hope and purchase intentions, a mediation analysis using Hayes' PROCESS macro (model 4) was performed. The analysis was conducted using data from the control group and the hope group (N = 131), with advertisement type (0 = control, 1 = hope appeal) as the independent variable (X), self-efficacy as the mediator (M), and purchase

intentions as dependent variable (Y). Bootstrapping with 5000 samples was conducted to generate percentile confidence intervals and estimate the indirect effect.

The result indicated that advertisement type was not a significant predictor of self-efficacy (b = 0.41, SE = 0.25, t(129) = 1.64, p = .104, 95% CI = [-0.09, 0.91]). However, self-efficacy significantly predicted purchase intentions (b = 0.48, SE = 0.07, t(128) = 6.86, p < .001, 95% CI = [0.34, 0.62]). When controlling for self-efficacy, advertisement type was a significant predictor of purchase intentions (b = 0.41, SE = 0.20, t(128) = 2.02, p = .046, 95% CI = [0.01, 0.81]). The total effect of advertisement type on purchase intentions was significant (b = 0.61, SE = 0.23, t(129) = 2.60, p = .011, 95% CI = [0.15, 1.07]). However, the result of the indirect effect through self-efficacy was not significant (b = 0.20, bootstrapped SE = 0.13, 95% CI = [-0.03, 0.48]), as the 95% bootstrap confidence interval included zero. Consequently, since the indirect effect was not statistically significant, the results of the mediation analysis did not support H1b.

5.1 Discussion

The statistical test results revealed that the respondents who got exposed to the advertisement which included both the environmental claim and the emotional appeal of hope reported higher purchase intentions compared to the respondents in the control group only exposed to the environmental claim. Since the difference between the groups were statistically significant, one may initially assume that H1a was supported.

However, the manipulation check revealed no significant differences between the five advertisement groups, indicating that the manipulation through the hope appeal was not successful. Since hope was not successfully induced with a statistical significance, the

significant difference in purchase intentions between the control group and the hope group cannot confidently be attributed to the emotional appeal of hope but may rather be influenced by other factors. Therefore, H1a cannot be confidently supported.

Nevertheless, it is worth noting that the hope group reported the highest mean value for sense of hope compared to the other groups (Figure 3), indicating a trend in the predicted direction. This observation is in line with previous research suggesting that hope has a positive influence on sustainable behaviors (Kerret, Orkibi and Ronen 2016; Ojala 2012; Ojala 2015; Stevenson and Peterson 2015). However, in the present research study, the hope appeal may have had only a partial influence that was not consistent or robust enough to achieve statistical significance. The manipulation might not have conveyed the intended emotion sufficiently for respondents to sense it to a meaningful extent, or the measurement scale might not have been sensitive enough to detect subtle shifts in the emotional states. Recall that it has been suggested that emotions are likely to co-occur (Berrios 2019), therefore another explanation could be that the advertisement might have elicited unintended emotional arousals that contributed to the difference in purchase intentions.

Moreover, other potential factors may have influenced the significant difference between the two groups. These include the structure, tone, or phrasing of the message itself in the hope condition, in which respondents may have perceived the message more engaging, relatable or persuasive and hence reported higher purchase intentions independently of the emotion. Further, moral alignment might be a contributing factor, where respondent in the hope group resonated with the message through shared values. Regardless, one must be cautious with the interpretations of the significant difference in purchase intentions since hope was not

successfully induced with statistical significance. Therefore, as the primary condition for its support was not met, H1a was not supported.

To better understand the significant difference in purchase intentions, it was of interest to explore the impact of respondent's current sustainable behaviors. Notably, the bootstrapped analysis of covariance indicated that respondents' frequency of purchasing environmentally friendly products (Q2_1) was a significant predictor of purchase intentions. This finding aligns with Cowan and Kinley's (2014) research, which suggests that prior sustainable fashion purchases have a great influence on individuals' purchase intentions. While their study focused on the specific context of sustainable fashion, the significant predictor (Q2_1) in this research is not limited to a single context, suggesting the potential that general sustainable purchases similarly influence consumers' purchase intentions for sustainable fashion. Further, as suggested by Joy et al. (2012) individuals do not have the environmental aspect in consideration when consuming clothes. This statement is in alignment with the findings from the bootstrapped analysis of covariance, which revealed that the second covariate (Q2_2), that measured how frequently respondents consider the environmental aspect when making purchase decisions, was not a significant predictor of purchase intentions. The results further revealed that even after controlling for the two covariates of current sustainable behaviors, the significant difference between the groups remained, with the hope group reporting higher purchase intentions. This suggests that the observed effects were not solely explained by respondents' current sustainable behaviors.

Considering that the advertisement type and respondents' frequency of purchasing environmentally friendly products together explained approximately 10% of the variance in purchase intentions, there were evidently other factors influencing purchase intentions.

Plausible factors could include pre-existing variations in attitudes toward environmental claims, sustainable fashion, emotional appeals or other unmeasured psychological variables.

The mediation analysis offered further additional insights into the observed effects of the advertisement type and self-efficacy on purchase intentions. While the direct and total effect of advertisement type on purchase intentions were statistically significant, the indirect effect through self-efficacy was not, which suggests that H1b proposing self-efficacy as the mediator was not supported. Moreover, the advertisement type was not a significant predictor of self-efficacy, which was somewhat expected since the manipulation of hope was not successfully evoking the emotion to a meaningful extent. Importantly, self-efficacy was found to be a significant predictor of purchase intentions, strengthening its role as an important driver for consumer behavior. This finding aligns with existing research suggesting that individuals with higher self-efficacy have a greater likelihood of pursuing actions they believe will result in desired outcomes (Bandura 1991). Accordingly, it highlights a promising strategy to enhance consumers' self-efficacy to encourage sustainable purchasing in the fashion context, independently of the inclusion of emotional appeals of hope.

Overall, while this study revealed valuable insights, neither H1a nor H1b can confidently be supported with statistical significance. However, it is important to emphasize that the lack of support is not due to evidence contradicting the hypotheses, but rather to the fact that the hypotheses cannot be accurately assessed since the manipulation intended to evoke hope was unsuccessful. This study further underscores the complexity of sustainable consumer behaviors already established by current literature (Peattie 2010; Sarigöllü 2008; Zukin and Maguire 2004), as well as the complexity of emotional arousals and the methodological technicalities of experimental test.

6. General Discussion

In an attempt to extend the literature on sustainable consumer behaviors in fashion, the overarching research examined the effect of coupling an environmental claim with an emotional appeal on consumer purchase intentions within sustainable fashion. Across four studies, the research shed light on the role of emotional appeals (hope, pride, guilt and shame) and their respective predicted mediators (self-efficacy, social approval, personal responsibility and perceived responsibility) in sustainable fashion consumption. By coupling emotional appeals with environmental claims, this research aimed to explore whether these combined approaches could effectively drive behavioral intentions and uncover the mechanisms underlying such relationships.

The studies consisted of two main facets, followed by an additional exploratory analysis. The first facet involved examining the emotional appeals' impact on purchase intentions, whereas the second facet pertained to the predicted mediators aiming to understand whether these psychological factors explained the relationship between emotional appeals and purchase intentions. Lastly, the exploratory analyses considered the impact of pre-existing sustainable behaviors, exploring how respondents' sustainable predispositions influenced their purchase intentions.

Although all four studies hypothesized that the combination of an environmental claim and their respective emotional appeal would increase consumer purchase intentions within sustainable fashion (H1a, H2a, H3a and H4a), only one hypothesis was statistically supported. Results from the hope study revealed that the respondents in the hope group reported significantly higher purchase intentions compared to the control group. Conversely, the emotional appeals of pride,

guilt, and shame did not significantly influence purchase intentions compared to the control group.

Common for all studies, the second one-way between-subjects analysis of variance revealed no significant differences in the reported sense of the intended emotion across all five advertisement groups. In other words, the manipulations intended to elicit specific emotions (hope, pride, guilt, and shame) were not successful. Hence, it is essential to note that the results from the hope study statistically supporting H1a cannot confidently be attributed to the emotional appeal of hope. However, even though the hope manipulation did not achieve statistical significance, the observed trend in the predicted direction is in alignment with literature suggesting hope's positive influence on sustainable behavior (Kerret, Orkibi, and Ronen 2016; Ojala 2012; Ojala 2015; Stevenson and Peterson 2015).

As mentioned throughout the previous study discussion, this indicates that the overall experimental design could not effectively test the impact of the emotional appeals on purchase intentions within sustainable fashion and reinforces insights from previous literature. Firstly, the consistent null effect shed light on the inherent complexity of human emotions and the great perplexity in evoking isolated emotional responses without eliciting unintended emotional arouses (Berrios 2019). Secondly, despite the conflicting findings from prior research regarding the most effective framing technique (Baek and Yoon 2017), it is worth noting that emotional appeals in each respective study were framed positively. While this approach aligns with the one side of research stating the predominance of positive message framing in fostering sustainable consumption behaviors in fashion (Grappi et al. 2024), it is important to recognize that the positive framing may have influenced the elicitation of the intended emotions. Respondents exposed to positively framed messages sought to evoke guilt, or shame may not

have experienced these emotions as strongly, as the framing did not align with the inherent nature of these emotions.

When running an exploratory covariate analysis, the significant effects of the hope appeal and the lack of significant effects of the pride, guilt and shame appeals on purchase intentions persisted even after controlling for current sustainable behaviors. Furthermore, it was found that the habitual purchase of sustainable products (Q2_1) was a significant predictor of purchase intentions in sustainable fashion, across all studies except for the shame study. This partial observation is in accordance with prior research stating that individuals with already established sustainable fashion consumption habits are more inclined to continue such purchase behaviors (Cowan and Kinley 2014). As further argued by Joy et al. (2012), consumers do not account for the environmental aspect in purchase decisions for clothing. Results from the four studies revealed similarities due to the insignificant predictor of frequency of considering sustainability as a factor in purchase decisions (as measured by Q2_2). The combined findings from the two items of current sustainable behaviors suggest that already established habits have a greater influence on purchase intentions compared to mere sustainability considerations.

By shifting the narrative from the emotional appeals to the hypothesized mediators bridging the relationships between the emotional appeals and purchase intentions (H1b, H2b, H3b and H4b), the results revealed that no hypotheses were supported. The absences of significant indirect effects could be expected since the emotional manipulations did not succeed. However, in consensus with (White, Habib, and Hardisty 2019) it was found that self-efficacy, social approval, personal and perceived responsibility independently predicted purchase intentions, suggesting their relevance in driving consumer behaviors.

7. Limitations and Suggestions for Future Research

Although the studies altogether provide insights into how to promote sustainable fashion consumption through emotional appeals, several limitations and consequent opportunities for future research should be considered.

First, as the manipulations of each emotion were not successful, the interpretations of results with regard to the main hypotheses (H1a, H2a, H3a, and H4a) should be made with caution. For the hope group, even with a significant difference in purchase intentions between the control and hope group, there is not sufficient evidence to confidently attribute the difference to the emotional appeal of hope. Common for all groups, the significant difference and lack of significant differences in purchase intentions might rather be attributed to the failed manipulation of emotions rather than evidence against the emotional appeals' effectiveness. In the context of this research, a pretest of manipulation checks for each emotion would have been necessary to ensure that each study effectively manipulated the intended emotions in the experimental testing. Such proactive measures would have enabled more accurate interpretations of the specific emotions actual impact on purchase intentions in the context of sustainable fashion. Future research should hence pertain focus to the understanding of how to successfully evoke intended emotional arousals within the context of sustainable fashion in order to draw reliable conclusions of its effectiveness in communication. However, the finding that the hope appeal may have a partial influence on purchase intentions, even though it did not achieve statistical significance, indicated a trend in the predicted direction. This finding emphasizes the relevance in further exploring the emotional appeal of hope and its influence on behavioral intentions within the context of sustainable fashion for future research.

Second, if future research successfully evoked the intended emotions, it should further be explored if the proposed mediators revealed significant indirect effects between the emotional appeals and purchase intentions. Namely, as this study was limited due to failed manipulations resulting in non-significant effects of advertisement types on predicted mediators, consequently leading to non-significant indirect effects. Such insights would contribute with value to practitioners in terms of understanding how to craft messages in advertisements in an effective way to achieve desired consumer behavioral responses, such as increased purchase intentions.

Third, and aforementioned, all emotional appeals in each respective advertisement were framed positively. Although this way of framing aligns with some literature suggesting the superiority of positive message framing in fostering sustainable behavior, it is possible that such framing is not the most effective approach for evoking the intended emotions in the specific context, and that this may have limited the emotional responses of each study. This possibility should be considered and further explored when setting the experimental design for future studies intended to elicit specific emotional arousals in a sustainable fashion context.

Fourth, the experimental tests were limited to fashion products made of sustainable materials. However, we note that sustainable consumer behavior can take various forms within sustainable fashion, such as initially and voluntarily cutting back on one's fashion consumption, consuming fashion products with sustainable features, production and sourcing, or disposing such products more sustainably. Hence, it would be interesting to explore emotional appeals' influence on other consumer behaviors within the broader context of sustainable fashion.

Fifth, no company names or brands were included in this research to rule out any possible effects of brand attitudes, perceptions or other related factors that may affect the emotional

responses to the appeals or purchase intentions. However, it would be of interest for future experimental tests to incorporate real brands and control for variables like brand perceptions and attitudes to investigate how those might influence the relationship between emotional appeals and purchase intentions. Studies may also explore how the effectiveness of each emotional appeal varies depending on strong/weak brand attitudes or perceptions, or possible moderating effects. Depending on the outcome and results of such research, practitioners may get a better understanding of how to utilize specific emotional appeals related to their individual brands and consumers' brand relationships.

Sixth, and lastly, the time constraint and experimental design of this research represents a limitation. To evoke specific emotions and accurately grasp emotional and cognitive responses is complex and requires careful development, which was limited by the restricted timeframe. Particularly, insufficient time for thorough pretests, development and adjustments of the final emotional manipulations may have contributed to the failure of evoking the intended emotions. Moreover, the chosen sampling method of the survey may have influenced the research sample. External validity, or generalizability, may be limited due to the use of available rather than random sample from the entire population. Consequently, while the sample provides valuable insights into consumer behavior, it may not fully represent the demographics of the broader population, limiting the extent to which findings can be generalized across different consumer groups. In future research, emphasis and time should pertain to obtain a more random sample, and adequate research design as it would allow for comprehensive development and testing of emotional manipulations. Such an approach could enhance the validity and reliability of the research findings and allow for deeper insights into how emotional appeals influence consumer behaviors in the context of sustainable fashion.

8. Theoretical Contributions and Practical Implications

Based on the findings, discussion, and theoretical framework of the overarching research, the authors propose main areas of contribution and implications.

Overall, this research contributes valuable insights not only for organizing and understanding emotional appeals in advertisement, but also for providing a basis and greater guidance for future research to build upon when exploring how various emotions' impact purchase intentions in the sustainable fashion context.

Since sustainable consumers are highly heterogenous and their behaviors cannot be effectively regulated through a one-size-fits-all approach, the findings from this research deepens the already established importance of self-efficacy, social approval, personal and perceived responsibility in promoting sustainability and extends their relevance in the sustainable fashion context. By illustrating that self-efficacy, social approval, personal responsibility and perceived responsibility predicts purchase intentions for sustainable fashion, the research reinforces previous beliefs proposing that one can positively influence consumers' purchase decisions by leveraging these psychological factors in advertisements. Therefore, practitioners may utilize this information in their marketing efforts, and tailor strategies to enhance consumers' perceived capability, moral considerations and positive recognition from others in regard to sustainable fashion.

9. Conclusion

The purpose of the overarching research was to answer the established research question. In alignment, four studies investigated the role of specific emotions in promoting sustainable consumer behaviors in fashion. The conclusion intends to answer the established research questions based on the quantitative findings.

> *RQ:* "*Does coupling environmental claims with emotional appeals in marketing increase the likelihood of consumer purchase intentions within sustainable fashion consumption?*"

In spite of the theoretical foundation suggesting the potential of hope, pride, guilt and shame appeals, the findings yielded mixed interpretations due to the failed manipulations, emphasizing the complexity of evoking isolated specific emotions and its influences on behavioral intentions. Even though evidence pointed toward the promising potential of leveraging hope in sustainable fashion advertisement to encourage sustainable behaviors, there is a need for further research to determine its exact effectiveness. Likewise, evidence refraining from the effectiveness of pride, guilt and shame does not necessarily invalidate their potential in the specific context.

To conclude, although neither of the four studies could provide evidence to confidently assess the research question nor any of the proposed hypotheses, the studies altogether offer a greater depth for future research to build further upon.

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11. Appendices

Appendix A – Advertisement Stimuli

Appendix A.1: Control Group

Appendix A.2: Hope Group

Appendix B – Results of Statistical Analyses

Appendix B.1: Results of Cronbach's Alpha

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.784	.785	2

Inter-Item Correlation Matrix

	Q1_1	Q1_2
Q1_1	1.000	.645
Q1_2	.645	1.000

Appendix B.2: Results of Analysis of Variance (ANOVA)

ANOVA

PI_Y

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12.110	1	12.110	6.748	.010
Within Groups	231.523	129	1.795		
Total	243.634	130			

Descriptives

PI_Y

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	63	4.524	1.4931	.1881	4.148	4.900	1.0	7.0
4	68	5.132	1.1801	.1431	4.847	5.418	1.0	7.0
Total	131	4.840	1.3690	.1196	4.603	5.076	1.0	7.0

Appendix B.3: Results of Manipulation Check (ANOVA)

ANOVA

Q1_4

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	17.885	4	4.471	1.656	.160
Within Groups	809.866	300	2.700		
Total	827.751	304			

Descriptives

Q1_4

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	63	4.30	1.652	.208	3.89	4.72	1	7
2	59	4.15	1.669	.217	3.72	4.59	1	7
3	55	3.95	1.671	.225	3.49	4.40	1	7
4	68	4.68	1.540	.187	4.30	5.05	1	7
5	60	4.25	1.694	.219	3.81	4.69	1	7
Total	305	4.28	1.650	.094	4.10	4.47	1	7

Appendix B.4: Results of Levene's Test - Homogeneity of Variance for ANCOVA

Levene's Test of Equality of Error Variances[a]

Dependent Variable: PI_Y

F	df1	df2	Sig.
7.328	1	126	.008

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Q2_1 + Q2_2 + Grupo

Appendix B.5: Results of Bootstrapped Analysis of Covariance (ANCOVA)

Parameter Estimates

Dependent Variable: PI_Y

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound	Partial Eta Squared
Intercept	3.253	.419	7.766	<.001	2.424	4.082	.327
Q2_1	.352	.127	2.767	.007	.100	.603	.058
Q2_2	.138	.112	1.225	.223	-.085	.360	.012
[Grupo=1]	-.524	.221	-2.375	.019	-.960	-.087	.044
[Grupo=4]	0[a]	.	.	.	.	.	.

a. This parameter is set to zero because it is redundant.

Bootstrap for Parameter Estimates

Dependent Variable: PI_Y

Parameter	B	Bootstrap[a] Bias	Bootstrap[a] Std. Error	Bootstrap[a] Sig. (2-tailed)	Bootstrap[a] BCa 95% Confidence Interval Lower	Bootstrap[a] BCa 95% Confidence Interval Upper
Intercept	3.253	-.011	.361	<.001	2.554	3.934
Q2_1	.352	-.005	.103	<.001	.144	.528
Q2_2	.138	.008	.111	.212	-.076	.391
[Grupo=1]	-.524	.005	.223	.023	-.977	-.079
[Grupo=4]	0	0	0		.	.

a. Unless otherwise noted, bootstrap results are based on 5000 bootstrap samples

Appendix B.6: Results of Mediation Analysis Hayes PROCESS Macro (model 4)

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : PI_Y
    X  : IV_X
    M  : Q1_15

Sample
Size:  131

**************************************************************************
OUTCOME VARIABLE:
 Q1_15

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .1427      .0204     2.0731     2.6806     1.0000   129.0000      .1040

Model
              coeff         se          t          p       LLCI       ULCI
constant     4.7937      .1814    26.4254      .0000     4.4347     5.1526
IV_X          .4122      .2518     1.6373      .1040     -.0859      .9104

**************************************************************************
OUTCOME VARIABLE:
 PI_Y

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .5522      .3049     1.3230    28.0781     2.0000   128.0000      .0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     2.2123      .3670     6.0284      .0000     1.4862     2.9385
IV_X          .4098      .2032     2.0164      .0458      .0077      .8119
Q1_15         .4822      .0703     6.8558      .0000      .3430      .6214
```

```
************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 PI_Y

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .2230      .0497     1.7948     6.7477     1.0000   129.0000      .0105

Model
              coeff         se          t          p       LLCI       ULCI
constant     4.5238      .1688    26.8023      .0000     4.1899     4.8578
IV_X          .6085      .2343     2.5976      .0105      .1450     1.0720


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      .6085      .2343     2.5976      .0105      .1450     1.0720

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      .4098      .2032     2.0164      .0458      .0077      .8119

Indirect effect(s) of X on Y:
          Effect     BootSE   BootLLCI   BootULCI
Q1_15      .1988      .1307     -.0319      .4793

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

------ END MATRIX -----
```