Antecedents and Consequences of Green Scepticism: Evidence from a Frontier Market

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ABSTRACT

Explaining how skepticism affects a consumer's green purchasing behaviour is pivotal because it has the potential to alter consumer behaviour. Therefore, this study aims to fill this void by exploring how green skepticism influences green purchasing intention in Sri Lanka. The current research looks into the relationship between environmental concerns and green perceived risk. Besides, it empirically examines the impact of environmental concerns and perceived green risk on green skepticism. A google form questionnaire was distributed through social media to test the study hypotheses, and 212 responses were received from the participants who were aware of environmentally friendly products and their benefits. The survey results revealed that environmental concerns increase green perceived risk. Besides, environmental concerns and perceived green risk positively impact green skepticism, which in turn has a significant and negative influence on consumer purchase intention of green products. As an outcome, the research result provides novel insights for scholars and practitioners to use in developing anthropomorphic marketing strategies to increase consumers' intentions to buy green products.

Keywords: Environmental Concerns, Green Perceived Risk, Green Skepticism, Purchase Intention

INTRODUCTION

Over the years, environmental concerns have become popular among academics and marketing practitioners (Albayrak et al., 2013). Because everything is turning green these days, including people. Environmentally

friendly items can be found nearly everywhere: in renewable energy, semiconductors, semiconductor architecture, government buildings, commerce and investment, fashion, fabrics and packaging, counters, light bulbs, eggs, refrigerators, wedding bands, holidays, etc. Green products are becoming increasingly popular around the world, fuelled by a desire for a more environmentally friendly manner of consuming and living (Liu et al., 2019; H. V. Nguyen et al., 2019; Usharani & Gopinath, 2021). To achieve a common greener aim, many marketing players, including consumers, businesses, and policymakers, must collaborate and interact with each other. Further, this piques people's attention because environmentally conscious people tend to act in ways that benefit the planet (Czap & Czap, 2010).

Besides, one of the United Nations' sustainable development goals is to encourage the use of eco-friendly products. Environmentalists, governments, and non-profit entities are interested in promoting greener consumption habits (Jain & Kaur, 2004; Oliver, 2016). Nevertheless, the most critical question is whether or not people have a reason to choose eco-friendly products over regular ones. Skepticism is not a state of mind; it only manifests itself when certain things happen. Skeptics are doubts about what others say or do (Sosa, 2000). However, if convincing evidence is provided, they might change their minds. In line with Pomering and Johnson (2009) and Mohr et al. (1998), a person's level of skepticism is a cognitive response that varies depending on the communication's context and content.

Customers who are skeptical of an organisation's claims reduce the effectiveness of advertisements (Bae, 2018). In a supporting view, Obermiller et al. (2005) pointed out that Skeptics do not exhibit the expected correlation between advertisement and purchase intention regarding advertising claims. As a result, skepticism must be applied when studying environmentally conscious consumer behaviour. The effects of skepticism are rarely investigated in the realm of consumers' green purchasing behaviour, and studies linking consumer green buying behaviour and skepticism are scarce. Therefore, this work focuses on the causes of consumer skepticism and how that affects the consumer's ability to make wise decisions towards eco-friendly products. According to a previous study, green skepticism can help consumers make more informed judgement by raising the amount of effort they put into evaluating a message (Matthes & Wonneberger, 2014).

However, consumers' scepticism towards green products has received insufficient attention from researchers. According to a review of the existing literature, only a few attempts have been made to investigate the drivers,

deterrents, and consequences of green skepticism (Leonidou & Skarmeas, 2017). Consumers, companies, investors, governments, and society at large all have differing views about green skepticism. Consumers may be dissuaded from buying green products for the first time, repurchasing them, or choosing the most environmentally friendly products from their alternatives (Albayrak et al., 2011; Nekmahmud & Fekete-Farkas, 2020). Consequently, fewer individuals will consider purchasing green products, and others will contribute less to environmental sustainability. (Udokporo et al., 2020).

A survey of industry professionals found that businesses invest billions of dollars annually into marketing their green products, creating brand awareness, differentiating their products, and enhancing market competitiveness (Pimonenko et al., 2019). Similarly, governments invest tens of millions of dollars to combat various forms of environmental deterioration and conduct a variety of programs to encourage positive behavioural changes in favour of environmental conservation (Clark et al., 2020). Despite the facts and figures presented above, research in green skepticism is still in its early stages and remains incoherent and fragmented (Silva et al., 2020). Overall, the existing literature lacks a comprehensive theoretical model demonstrating the antecedents and behavioural outcomes of green skepticism, indicating a gap in the literature. As a result, this work seeks to scrutinise the causes and consequences of green skepticism. The following section describes how the study was carried out and how it contributed to the literature.

REVIEW OF THE LITERATURE

Environmental Concern and Green Perceived Risk

In the field of environmental studies, "environmental concern" is typically one of the earliest conceptual terms to be used (Antil, 1984). Hosta and Zabkar (2021) supported the early theory of environmental concern, which is a general approach to problems in natural ecological settings and may include either a positive or negative assessment of environmental flaws (De Pelsmacker & Janssens, 2007). Environmental concern has been discovered to be an essential predictive variable of consumer pro-environmental behaviour (Bhuian et al., 2018). Drawing on the above discussion, we argued that environmentally conscious consumers expect their purchasing decisions may have a significant and positive impact on the environment (green perceived risk). In light of this, we formulate that:

Hypothesis 1: Environmental concerns increase green perceived risk

Environmental Concern and Green Skepticism

Environmental issues have drawn more and more attention from academics and marketing professionals over the years. Individuals concerned about the planet are more likely to take care of it through their eco-friendly practices (Czap & Czap, 2010). Previous studies found that environmentalists are more likely to engage in environmentally conscious buying practices (do Paço et al., 2019; Ketelsen et al., 2020; Yue et al., 2020). Based on the above discussion, this study suggests that consumers who care deeply about the environment are more skeptical towards environmentally friendly purchases. Therefore, we postulate that:

Hypothesis 2: Environmental concern increases green skepticism

Green Perceived Risk and Green Skepticism

Customers' negative attitudes toward risk negatively influence their purchase decisions (Chaudhary & Bisai, 2018; Harridge-March, 2006; Kim & Gupta, 2009; Pires et al., 2004; Vlachos et al., 2016). There is a strong association between risk perceptions and negative consumption emotions, which immediately affects customer satisfaction (Baker et al., 2016). On the other hand, the term "green perceived risk" refers to the anticipation of unfavourable environmental effects resulting from a consumer's purchasing decisions. (Chen & Chang, 2013; Chen & Chang, 2012; Juliana et al., 2020; Peter & Ryan, 1976). As a result, consumers who perceive a high level of risk in green offerings are more skeptical of eco-friendly goods. Hence, we hypothesise as follows:

Hypothesis 3: Green perceived risk increases green skepticism

Green Skepticism and Purchase Intention

In the field of business management, skepticism has been studied in relation to advertising, organic products, corporate social responsibility, environmental settings, and cause-related marketing (Fabiola & Mayangsari, 2020; Goh & Balaji, 2016; T. T. H. Nguyen et al., 2019; Skarmeas et al., 2014). Inaccurate product labelling, customer misunderstanding, misrepresentation of products, and a lack of uniform standards and credentialing contribute to consumer skepticism about green products. (Goh & Balaji, 2016). Because of this, even if customers intend to purchase eco-friendly products, their skepticism regarding their environmental impact may

demotivate them from making green purchases. According to Elving (2013), skeptical consumers tend to emphasise considerations like profit and image enhancement when evaluating the veracity of green claims made in advertising or on product labels. The result of this skepticism in a company's intentions is a negative attitude toward both the company and the products it sells that are environmentally friendly. On the basis of the discussion above, we suggest that:

Hypothesis 4: Green Skepticism decreases green purchase intentions.

Conceptual Model

Figure 1 shows a conceptual model proposed for this work based on the literature review and the hypothesised linkages.

Figure 1: Conceptual Model
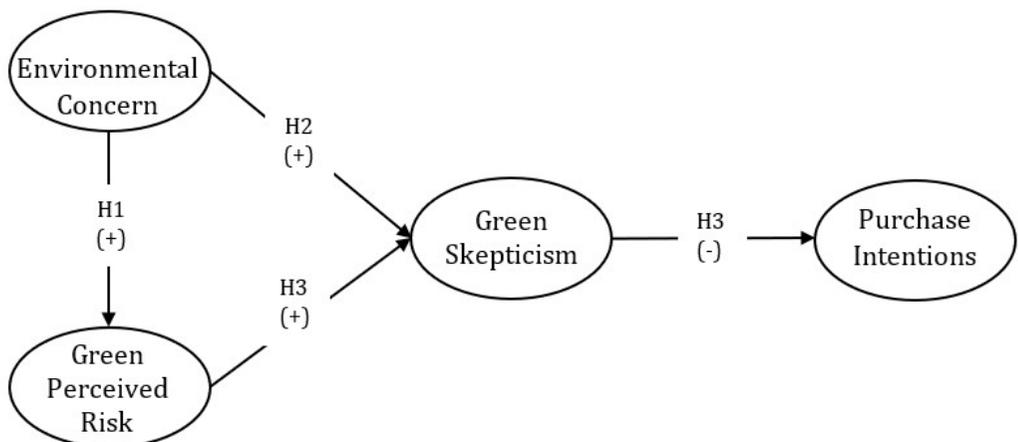
METHODS

A sample of 268 participants was sourced via social media platforms from February to March 2022. To guarantee that data was obtained from respondents who were aware of green products, researchers asked a screening question: "Do you know about green products and their benefits?". Only those respondents who qualified based on our screening criteria were considered to proceed to the rest of the survey. In this sense, 79.1% (n=212) of respondents in this survey were aware of green products and taken into account. Among them, a total of 184 usable data obtained from the online respondents were used for further examination. Based on the online survey

data, 55.4% of respondents are female (n=102), and 44.6 % are males (n=82). Further, most respondents fall in the age category of 31 to 45 years old (n=76, 41.3%), and most hold degrees from state and private Universities (n=82, 48.2%). Regarding respondents' family size, 64.7% have 4 to 6 members, 18.5% have 1 to 3 members, and 16.8% have more than seven members in their family. Regarding the respondent's monthly household income, most participants earn LKR 80,001 to LKR 110,000 (53.3%, n=98).

Besides, items on the online survey instrument were adapted from established scales and checked for suitability to the present study. Further, this survey instrument consists of four constructs: environmental concerns, green perceived risk, green skepticism and purchase intentions towards energy-efficient appliances. Besides, these scales have shown sufficient validity and reliability in prior studies, and all the previous studies used these constructs as reflective scales. Hence we also used them as reflective constructs in our study. The researchers used a five-point Likert scale ranging from 1 to 5 to assess this study's items. A score of 1 indicates "strongly disagree", while a score of 5 means "strongly agree". However, in the measure of environmental concern, 5 being "very much concern" and 1 being "not at all". Table I represents all scale items and sources. The scale items and their sources are listed in Table I.

RESULTS

Researchers used the Partial Least Squares (PLS) mechanism, a variance-based structural equation modelling (SEM) approach, to evaluate the hypotheses. PLS is well-matched for this investigation for two reasons: first, the research model is quite complicated due to the hypotheses' types of associations; and second, the study is focused on predicting and explaining variance in key target dimensions (Chin et al., 2003; Roldán & Sánchez-Franco, 2012). Thus, the PLS-SEM was performed using SmartPLS 3.3.9 tool. Consequently, the PLS-SEM model was conducted in two phases: the measurement model (to measure the construct reliability and validity) and the structural model (to examine the hypothesised relationships in the research model).

Measurement Model Assessment

As previously mentioned, the conceptual model is constructed on a reflective nature, and the criteria for the reflective measurement model are summarised in Table I. As per the result, all of the model evaluation prerequisites were satisfied, which implies that the model's reliability and convergent both seem

to be strong. Table I shows that the factor loading, Cronbach's alpha, and composite reliability of each independent variable were all greater than 0.7, indicating that the indicators combined adequately assess each construct (Hair et al., 2013). The Average Variance Extracted (AVE) for every construct ranges from 0.596 to 0.758, exceeding the minimum threshold of 0.5 (Götz et al., 2010). This means that the indicators for each latent construct in the model share more variance with their own indicators than with indicators of other latent variables (at a level of 50% or more). The findings confirmed that the measurement model has internal consistency and convergent validity (Hair et al., 2013).

Table 1: Measurement Model Summaries and Insights

Scale items	λ
Environmental Concern (Lee, 2009)	
$\alpha = 0.841$, CR (0.888), AVE (0.613)	
How concerned are you about the environment?	0.781
How concerned are you about pollution?	0.772
How concerned are you about water and air pollution in your city?	0.825
How concerned are you about extravagant water usage in your city?	0.838
How concerned are you about the environment when making purchases?	0.790
Green Perceived Risk (Chen & Chang, 2012)	
$\alpha = 0.843$, CR (0.876), AVE (0.615)	
There is a chance that there will be something wrong with the environmental performance of energy-efficient appliances	0.738
There is a chance that energy-efficient appliances will not work properly to their environmental design	0.791
There is a chance that you would get an environmental penalty or loss if you use energy-efficient appliances	0.810
There is a chance that using energy-efficient appliances will negatively affect the environment	0.822
There is a chance that using energy-efficient appliances would damage your green reputation or image	0.756
Green Skepticism (Albayrak et al., 2011)	
$\alpha = 0.814$, CR (0.911), AVE (0.596)	

Most environmental claims made on package labels or in advertising about energy-efficient appliances are false	0.765
I do not believe most environmental claims about energy-efficient appliances made on package labels or in advertising	0.755
Environmental claims about energy-efficient appliances made on package labels or in advertisements are false	0.767
Most environmental claims about energy-efficient appliances on package labels or in advertising are intended to mislead rather than to inform consumers	0.809
Environmental claims about energy-efficient appliances on package labels or in advertising lead people to believe things that are not true	0.872
Because environmental claims about energy-efficient appliances are exaggerated, consumers would be better off if such claims on package labels or in advertising were eliminated	0.840
I am sceptical about the accuracy of environmental claims about energy-efficient appliances made on package labels or in advertising	0.715

Purchase Intention (Nguyen et al., 2017)

α = 0.893, CR (0.626), AVE (0.758)

I will consider buying energy-efficient appliances	0.900
I plan to switch to other brands/versions of electrical appliances that are more energy-efficient	0.789
I intend to buy energy-efficient appliances	0.916
I will buy energy-efficient appliances in my next purchase	0.872

To assess the discriminant validity of the measures, researchers adopted the procedure proposed by Fornell and Larcker (1981). As shown in Table II, the scales were found to be discriminately valid because the square root of the average variance extracted for each construct on the upper diagonal was greater than the respective off-diagonal correlation coefficients (Fornell & Larcker, 1981). The HTMT values (Heterotrait-Monotrait) are highlighted in bold in the same table. The HTMT values for every possible construct combination are lower than the cutoff of 0.90 (Henseler et al., 2015). As a result, it is possible to conclude that the constructs have adequate discriminant validity (Hair et al., 2013). Therefore, the indicators for each construct in the model are not substantially associated with other constructs.

Table 2: Fornell-Larcker criterion analysis for checking discriminant validity

	1	2	3	4
1. Environmental Concern	0.783			
2. Green Perceived Risk	0.200** **(0.265)**	0.784		
3. Green Skepticism	0.317** **(0.357)**	0.726** **(0.829)**	0.772	
4. Purchase Intention	0.540** **(0.623)**	0.492** **(0.568)**	0.446** **(0.482)**	0.871

Notes: *The square root of each latent construct's AVE is represented by the diagonal value.*

**: Correlation is significant at p<0.01.

*HTMT stats are shown in Bold letters within the bracket.*

Hypothesis Testing

The path coefficients of the model are used to gauge the strength of the study's hypotheses. Researchers used bootstrapping (with 2,000 resamples) to generate standard errors and t-statistics to test the statistical significance of the path coefficients. The VIF values for the proposed model were less than the threshold value of 5.0 (Hair et al., 2010), and it can be concluded that the model does not showcase a multicollinearity problem. Besides, the VIF values for the research variables ranged between 1.657 to 2.946. The hypothesis testing results in Figure 2 ensure that there are significant positive associations between environmental concern (H1: $\beta = 0.219$, $p < 0.01$) and green perceived risk. Next, we discovered that green skepticism was significantly and positively associated with environmental concern (H2: $\beta = 0.167$, $p < 0.01$) and green perceived risk (H3: $\beta = 0.690$, $p < 0.001$) was significantly and positively associated with green skepticism. Finally, this study's finding corroborated the hypothesis that green skepticism has significantly and negatively related to purchase intention (H4: $\beta = -0.446$, $p < 0.001$). As a result, hypotheses H1, H2, H3, and H4 were confirmed.

Further, the coefficient of determination (R^2) indicates the extent to which a predictor variable accounts for variation in an endogenous construct. Our proposed model explained 4.8% of the variance in environmental concern to

green perceived risk, 55% in environmental concern and green perceived risk to green skepticism and 19% in green skepticism to their purchase intentions. Further, the model's predictive relevance was determined via Stone-Geisser's Q^2 parameters (Götz et al., 2010). In addition to R^2, this can be employed to determine the extent to which endogenous latent variables (dependent variables) contribute to the overall predictive accuracy of the model. According to the above note in this analysis, endogenous latent variables include purchase intention, green skepticism, and green perceived risk. In line with the guidance provided by Henseler et al. (2015), the Q^2 values of 0.02, 0.15, and 0.35 indicate that the endogenous variables have a minor, medium, or substantial predictive relevance. As a result, green perceived risk had a score of 0.023, suggesting that it has only minor predictive relevance. Leftover, the model's Q^2 values for green skepticism and purchase intention were 0.317 and 0.153, respectively, implying that the proposed framework would have medium predictive relevance for both green skepticism and purchase intention.

Figure 2: Result of Hypothesis Testing
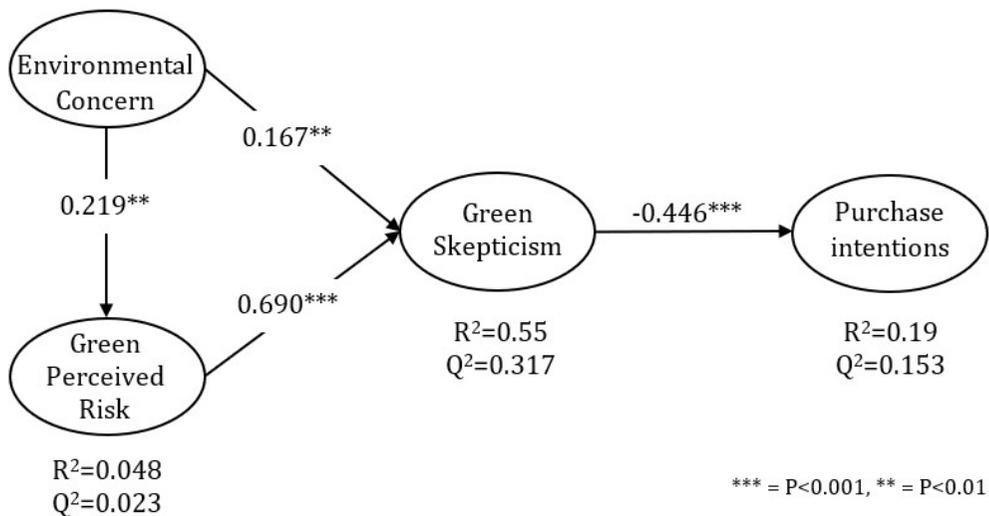
There is a gap in the literature regarding How to form and maintain purchase intentions in the context of green skepticism. Thus, the study's primary purpose was to investigate how green skepticism affects customers' purchase intentions of green products. To be more specific, the first objective was to evaluate the association between environmental concern and green perceived risk. The second objective of this study was to examine the effect of environmental concern and green perceived risk on green skepticism. To

achieve these objectives, the sample population of this study consists of individuals living in Sri Lanka. Whilst these respondents were selected by using a virtual snowball sampling process.

The empirical results show that environmental concern is significantly and positively correlated with green perceived risk (Iqbal et al., 2021; Szabo & Webster, 2021). In addition, this study explores how environmental concern positively impacts green skepticism. As a result, the findings of this study are consistent with existing research outcomes (Bhuian et al., 2018; Golob et al., 2018; Silva et al., 2020). The study's findings also suggest that an individual's perceived risk associated with green products influences their level of skepticism toward green products. This study's results align with previous studies that examined the association between individuals' perceived risk and their skepticism towards green products (Aji & Sutikno, 2015; Chen & Chang, 2013; Chen & Chang, 2012; Tarabieh, 2021). In addition, the findings indicate that skepticism about green products has a negative impact on consumers' purchase intentions for eco-friendly products (Albayrak et al., 2011; Fabiola & Mayangsari, 2020; Goh & Balaji, 2016; Luo et al., 2020; T. T. H. Nguyen et al., 2019). This study adds to the body of knowledge by analysing the skepticism of green products among Sri Lankan consumers and how it influences their intention to purchase such goods. In comparison, most prior research on green skepticism has focused on its impact on purchase intention among consumers in Western cultures (Albayrak et al., 2011; Zhang et al., 2021).

Moreover, this piece of work has significant theoretical and practical ramifications. Theoretically, a comprehensive model for addressing the effects of green consumer skepticism on purchase intention was proposed in this study, and it was empirically tested. The scholarly work of green skepticism and consumer behaviour is in its infancy in the south Asian context. To that end, our research will contribute to a better understanding of how environmental concern and green perceived risk lead to green skepticism, which in turn influences purchase intention in developing economies such as Sri Lanka. Aside from a theoretical standpoint, the new study has insightful practical implications. According to the study's findings, business managers may modify their marketing communications and strategies to incorporate into account environmental concerns, environmental knowledge, and perceived risk in the context of how green skepticism influences green buying behaviours. Notably, when they develop promotional campaigns, they need to emphasise the key benefits of their eco-friendly products and their effect on the environment. Besides, practitioners

should be aware of the widespread distrust among consumers regarding green products. Further, it is better to create and communicate green marketing and claims; they should regularly conduct surveys and interviews to identify and evaluate the skepticism among customers. Importantly, they must try to understand the skeptical customers' behaviour and urge or persuade them to purchase environmentally friendly products.

Despite its theoretical and practical contributions, this study has some limitations that future researchers could address. First, consumers in Sri Lanka are the subject of this study. Therefore, generalising the finding is dubious. Future studies could compare this study to other consumers in different nations in Asia to improve the generalizability of these conclusions. Further, this study empirically tests the direct effect of the study construct. Therefore, future research can use either a mediating or a moderating role in the existing model of environmental knowledge, green perceived value, green trust, green image, and personal norms.

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