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RESEARCH ARTICLE

Factors influencing green purchases: An emerging market perspective

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Abstract

Educators, marketers, and policymakers need to understand what factors influence the consumers' purchase of green products to encourage green product buying. Thus, this study examines the antecedents to green purchases. An online survey provides quantitative input for a SmartPLS analysis. The study draws on the theory of consumption values to investigate how emotional and social values affect green purchasing decisions. The role of knowledge-seeking in developing these values is investigated and found to be significantly positive. The relationships between emotional value, social value, and green purchase behavior are found to be mediated by environmental concerns. This study contributes to the discussion around consumption values by showing that environmental concern has a stronger relationship with green purchases than emotional and social value. It is through the environmental concern that emotional and social values influence green purchases. Our findings suggest that marketers should leverage the consumers' knowledge-seeking and environmental concern in their advertising campaigns by emphasizing a specific green product novelty and highlighting the casual connection between green buying and their effect on the environment.

KEYWORDS

consumption values, emotional value, environmental concern, green products, knowledge-seeking, social value, sustainability

1 | INTRODUCTION

Achieving sustainable consumption is the twelfth goal on the UN's list of Sustainable Development Goals. The Sustainable Development Goals Report (2022) highlights that “unsustainable patterns of consumption and production are a root cause of the triple planetary crises—climate change, biodiversity loss and pollution” (SDG Report, 2022, p. 50). “The case of sustainable consumption provides a good example that it is both necessary and possible for social and natural science approaches to complement and advance each other to

generate scientific impetus for sustainable development” (Geiger, Fischer, & Schrader, 2018, p. 29). Understanding how to encourage sustainable consumption is thus imperative and is the focus of this study.

Increasing awareness that the current consumption patterns might curtail future generations' ability to meet their needs (Lemke & Luzio, 2014) resulted in a growing focus on sustainability promotion (Joshi & Rahman, 2015). As a result, we have witnessed a rising global aptitude toward green products (Biswas and Roy, 2015; Moser, 2016; Paul et al., 2016). Green products “reflect what is achieved to prevent,

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limit, reduce, or correct harmful environmental impacts on water, air, and soil; they constitute at least one means of resolving problems related to waste, noise, and general detriment to the ecology" (Lin & Huang, 2012, p. 11), and add "long-term benefits without diminishing products' satisfying qualities" (de Medeiros & Ribeiro, 2017, p. 240). The key characteristics of green products involve, for example, being domestically planted, organic, and environmental-friendly packaging, and, in some instances, support fair trade (Tanner & Task, 2003).

While organic agriculture has witnessed stable growth in both developed and developing countries and has emerged as the fastest-growing market sector (International Federation of Organic Agriculture Movements, 2020). However, unsustainable consumption remains one of the most urgent issues we face today (Dagher & Itani, 2014). Schultz et al. (2005) described environmental values as affective environmental matters. Environmentally conscious buyers normally purchase products with beneficial environmental influences (Nguyen & Johnson, 2020). Beside other causes such as health concerns, environmental values are also observed to be positively associated with the buyers' willingness to purchase (Van der Werff, Steg, & Keizer, 2014). Whereas several do not buy owing to circumstances such as price or lack of awareness (Pagiaslis & Krontalis, 2014). This problem is exacerbated by practices trying to take advantage of environmentally concerned consumers, for example, greenwashing (Rahman & Nguyễn-Việt 2022), which led to consumer cynicism of green products (Luchs et al., 2010). Another important barrier is the perceived lack of effectiveness (Pagiaslis & Krontalis, 2014). Considering these negative influences, it is important to recognize that consumers compare their behavior's perceived value and cost and seek to balance this relationship (Adams, 1963; Deci & Ryan, 1985). Consumers engaging in green behavior are especially prone to this balancing act, as green behaviors are associated with higher perceived sacrifice (Chwialkowska & Flicinska-Turkiewicz, 2020).

Our work builds on the recent studies in the Sustainable Development literature, the study of Awuni and Du (2016) who examined consumer choice as a function of consumption values, it also extends the exploratory work of Sobhanifard and Apourvari (2022) who highlighted the role of knowledge and environmental concerns in sustainable consumption, and by examining a lesser studied emerging country, like South Africa, we add to the conversation around whether culture influences green consumption (Ghazali et al., 2017). Therefore, South Africa offers an interesting context for this study. During 2014, South Africa's per capita energy utilization exceeded numerous developing countries globally. Moreover, South Africa reportedly produced the highest greenhouse gas emissions per unit globally (Sonnenberg et al., 2014). Furthermore, recent droughts in South Africa constitute clear evidence of how unsustainable consumption is depleting natural resources such as water and exacerbating the global warming and drought creating conditions: "Although droughts are relatively frequent in these areas, the severity and frequency of occurrence in regions like Cape Town ... among others, appears to be rising," finds research (Sousa, 2019, p. 1). As an emerging market, South Africa thus faces the challenge of balancing its economic goals and pro-environmental efforts. The rising unsustainable

consumption patterns of South Africa need careful attempts to promote green consumption (Sonnenberg et al., 2014) so that consumer demand can drive positive changes in this area. Therefore, we selected this country for our analysis.

As, policymakers, marketing departments, and educators must understand what factors influence green purchases to encourage green products. Previous research on green purchases has struggled with achieving this goal. The "relationship between its antecedents, and the behavioral consequence is complex and constitutes a challenge for academics and marketers" (Do Paço et al., 2013, p. 414). Several works (e.g., Almossaw, 2014; Liobikiene & Bernatoniene, 2017; Moser, 2016; Newton et al., 2015; Paul et al., 2016; Ritter et al., 2015; Russo, Confente, et al., 2019; Russo, Galiano, et al., 2019; Wang et al., 2014) investigated the relationship between consumption values and green purchases. However, there has been little research exploring antecedents possibly influencing the development of these values (Confente et al., 2020; Han, 2020; Paul et al., 2016), as the existing literature does not explain "the formation of customer's intentions [here values] to practice environmentally friendly actions" (Trang et al., 2019; Awuni and Du, 2016). Do these values directly influence green purchases, or is there a sequence or path through which values affect green purchases? How is this process (and its underlying values) influenced by the consumers' environmental concern?

Therefore, this study aims to establish how environmental concerns and individual and social factors influence consumers' green purchases. By building on the theory of consumption values (TCV), we examine the effect of emotional and social values on green purchases and explore the role of knowledge-seeking in developing these values. Survey data were collected and analyzed through structural equation modeling. Dermody et al. (2015) highlight attitudes and behaviors around sustainability might differ in emerging and developed markets, yet it is the developed markets that were the main focus of previous research. While developed markets are characterized by the highest consumption per capita (Tanner & Task, 2003), "the consumption patterns of emerging economies are increasingly reflecting those of high-income industrialized countries" (Sonnenberg et al., 2014, p. 559). Still, existing sustainability literature mainly concentrated on the developed countries in the western hemisphere or a select few Asian countries (such as China, India, Hong Kong, or Taiwan) (Nguyen et al., 2016). This resulted in calls for more focus on developing countries (Chwialkowska et al., 2020), especially emerging and rapidly changing markets that exercise an immense environmental effect (Soyez, 2012).

Our work contributes to the green purchase literature in several ways. First, we directly investigate how knowledge-seeking behavior influences the development of certain consumption values. While prior studies have concluded that certain values are linked to green choices by consumers (e.g., Almossaw, 2014; Liobikiene & Bernatoniene, 2017; Moser, 2016; Newton et al., 2015; Paul et al., 2016; Ritter et al., 2015; Russo, Confente, et al., 2019; Russo, Galiano, et al., 2019; Wang et al., 2014), these studies have not attempted to understand the mechanism through which values affect green purchases. This study's second contribution is that it sheds light

on whether and how environmental concern works in tandem with these values in driving green purchase behavior. Specifically, it considers whether emotional or social values have a more important mediating influence in the context of green purchasing behavior. As Ölander and Thøgersen (1995, p. 360) state that, “consistency between attitudes and behaviour can be expected only if the behaviour depends solely on the actors' free choice.” Third, by focusing on the emerging market of South Africa, we shed more light on promoting sustainability in developing countries as called for by Chwialkowska et al. (2020) and Soyez (2012). Our endeavour will add to broader understanding of how environmental concerns, individual and social factors influence the consumers' green purchases.

2 | LITERATURE REVIEW

2.1 | Theory of consumption values

This study employs the TCV to study values influencing green purchase choices. The TCV has been shown to describe, explain, and predict why buyers choose to purchase or not purchase one product, brand, or service over another (Sheth et al., 1991). Making a green purchase is often seen as something that requires expending extra effort, as a consumer has to give something up—often spend the extra money and make a sacrifice (Chwialkowska & Flicinska-Turkiewicz, 2020). Rational consumers consider specific behavior as a trade-off between perceived value and costs (Monroe, 2003). The underlying premise of the TCV is that consumption (or, here, purchase) preference is a function of various consumption values (Sheth et al., 1991). Examples of consumption values are, for instance, social value (how others perceive your purchase behavior) or emotional value (how consumers view and consider themselves after buying). These values can be considered potential risks that influence consumer purchase behavior, such as social or psychological risks (de Medeiros & Ribeiro, 2017).

The TCV has been employed in a broad variety of consumer behavior research and manifested a strong predictive validity for various products (Awuni & Du, 2016; Lin & Huang, 2012; Sheth et al., 1991). In the perspective of sustainability, empirical research confirms that the pursuit of value rather than altruism drives green intentions and behaviors (Chwialkowska & Flicinska-Turkiewicz, 2020; Schuitema & de Groot, 2015; Wu et al., 2011). Moreover, informing customers about purchasing green products has improved their desired behaviors frequency and green preferences (Wu et al., 2011).

2.2 | Hypotheses development

2.2.1 | Knowledge-seeking behavior

The more buyers know about a specific product's environmental impact and the more information they seek about a product, the more likely they are to buy it (Dagher & Itani, 2014). Thus, a positive link

has been established between environmental knowledge and green purchases (Pagiaslis & Krontalis, 2014, p. 337). Consequently, “the lack of public understanding and, possibly, the lack of public interest in what the carbon footprint values imply in foodservice provision was referred to as the primary obstacle” to green food purchases (Filimonau & Krivcova, 2017, p. 522).

Young et al. (2010, p. 26) mention that “for our green consumers the third major barrier was the lack of available information on the environmental and social performance of products and manufacturers”. In their findings, they find that green values and knowledge are precursors to deciding on the green criteria for purchasing a product (Young et al., 2010). Pekkanen et al. (2018) illustrate how those consumers who actively seek sustainability-related information are more likely to mobilize their environmental concern and make green purchases, they also show how values and information seeking behavior differ between the nationalities studied, namely, Finland, Hong Kong and Spain.

Knowledge-seeking impacts perceived social value. Dholakia (2001) examined the role of knowledge-seeking on the consumers' behavioral responses and proposed a positive relationship between information-seeking and social value. It is argued that seeking product information creates product involvement, which is positively associated with purchasing that product. This might also create positive associations with the consumer's reference group, increasing the social value from purchasing the product. Environmental knowledge has been shown to boost an individuals' willingness to act green (Cleveland et al., 2012; Kumar et al., 2017).

Information search can serve as a strategy for reducing risks (Dholakia, 2001). This is of critical importance from the perspective of sustainability, as greenwashing practices resulted in consumer distrust of green products (Luchs et al., 2010). Therefore, more green-savvy consumers choose to educate themselves about various eco-labels and certifications, the processes involved in making the products, and their impacts on the environment. This behavior has been shown to positively influence green purchases (Lin & Huang, 2012). Moreover, this knowledge might result in more confidence in that the customer is ‘doing good’ by purchasing the specific product, as well as the development of personal norms regarding what is a good or bad behavior toward the environment, which will be internalized as a feeling of moral obligation (emotional value). Thus, we extend Dholakia's (2001) line of reasoning - as we hypothesize below, information-seeking behavior is associated with social value and emotional value (Figure 1).

2.2.2 | Emotional value

Products and services evoke emotional responses that can be both hedonistic and utilitarian in nature (Lin & Huang, 2012). In many instances, consumer choice may be motivated by non-cognitive and unconscious motives (Sheth et al., 1991), such as emotional value. The emotional value “is the perceived utility acquired from an alternative's capacity to arouse feelings or affective states” (Sheth et al., 1991,

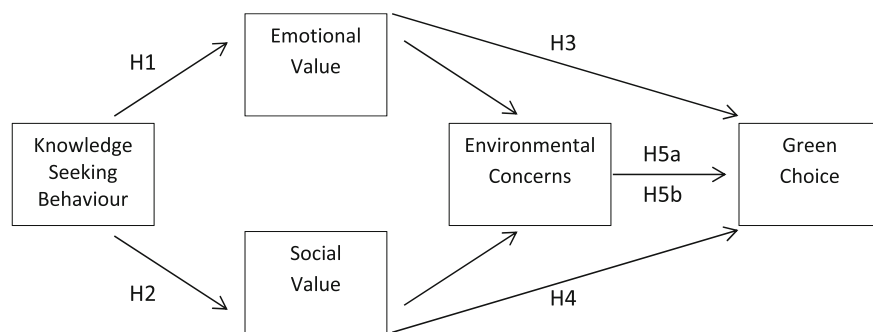


FIGURE 1 Research framework and hypotheses

p. 161). It has been conceptualized as “making a contribution to something better,” feeling that one does “morally right thing,” or “feels like a better person” (Lin & Huang, 2012, p. 14). Thus, it constitutes internalized personal norms. These individual norms are attached to one’s self-concept. They are experienced as a feeling of moral obligation (Chwialkowska, 2021; Minton & Rose, 1997) consistent with the person’s values (here values and attitudes toward environment).

Thus, personal norms and attitudes toward the environment are a primary driver of consumers’ environmentally friendly behavior (Minton & Rose, 1997), “while individual attitude was a good predictor of intentions to act in environmentally concerned ways, a sense of personal moral obligation [emotional value] is more likely to lead to action in the form of environmentally friendly product choices, search, and recycling.” Individuals who are motivated by emotional value may purchase green products because they think that protecting the environment is “the right thing to do” (Lin & Huang, 2012, p. 14). This has critical implications for sustainability. A study by Bei and Simpson (1995) (c.f. Lin & Huang, 2012) showed that nearly 90% of the respondents thought the environment was saved by purchasing recycled products, thus tapping into their emotional value. Consumers also feel that buying green products sets a good example (Couto et al., 2016). Consequently, studies have shown that environmental concern increases green consumption (Kilbourne & Pickett, 2008). It makes altruistic attitudes salient, while suppressing the drive for personal advantage (Clark et al., 2003). The environmental messages lead to positive brand attitudes regarding green products and green purchase intentions (Chang et al., 2015). Consequently, the emotional value will be positively associated with green purchases, resulting in more protective feelings toward the environment (and environmental concern).

2.2.3 | Social value

As products have a symbolic value beyond their functional utility, social value plays a significant role in consuming products visible to others (Sheth et al., 1991). “Social value is the perceived utility derived from an alternative association with one or more social groups” (Sheth et al., 1991, p. 161). It may also be explained as the apparent friends and peers’ social pressure to buy a particular product type. Individuals guided by pleasure-seeking objectives purchase more green products since they believe that it enriches their status (Liobikiene & Bernatoniene, 2017; Chwialkowska, 2021). For instance, someone may prefer to buy at

organic farmers markets for the social image it conjures rather than for the product itself as purchases of such products “project a good image of oneself to others” (Lee, 2008, p. 582), serving as a status-enhancing tool (Steg et al., 2014). Thus, communicating the notion that green product consumption enhances one’s status can be essential to promoting green purchases (Liobikiene et al., 2017).

Acting against social norms carries social risk, for example, unfavorable opinions of significant others (Dholakia 2001). Social pressure was thus found to be an essential driver of various consumer behaviors involving green consumption (Liobikiene et al., 2017). On the other hand, the green product purchases could prevent “social embarrassment” as well as are considered “worth the associated costs” (de Medeiros & Ribeiro, 2017). This can be attributed to green products being more socially acceptable (Follows & Jobber, 2000), resulting in a perception of those consuming green products as environmentally responsible consumers (Dagher & Itani, 2014; Lee, 2008). Therefore, the social value will be positively associated with green purchases, resulting in more interest (and concern) in environmental issues.

Drawing on the preceding discussion, we propose that buyers demonstrating a high degree of environmental knowledge-seeking behavior are more likely to be guided and steered by emotional and social consumption values from their behavior, and that these values translate into more green purchases.

H1. Emotional value is positively correlated with knowledge-seeking behavior regarding green products.

H2. Social value is positively correlated with knowledge-seeking behavior regarding green products.

H3. Emotional value is positively correlated with green purchases.

H4. Social value is positively correlated with green purchases.

2.2.4 | Environmental concern

Environmental concern constitutes a disposition toward protecting the environment (Crosby et al., 1981). Buyers with high-level environmental concerns tend to have higher-level environmental beliefs and

knowledge, which translate into a positive perception of green products (Han & Kim, 2010). Consequently, empirical evidence established a positive link between environmental concern and green behavioral intentions (Do Paço et al., 2013; Pagiaslis & Krontalis, 2014), intentions to make green purchases (Lee et al. 2014; Pagiaslis & Krontalis, 2014), and green purchases (Chan & Lau, 2000), as well as a range of other green behaviors (Kilbourne & Pickett, 2008; Nguyen et al., 2016).

A recent study drew attention to the key role of environmental concern in predicting behavior intentions (González-Rodríguez and Tussyadiah, 2021). Furthermore, it has been shown that environmental concern enhances the consumers' willingness to expend more effort or spend extra on green products (Pagiaslis & Krontalis, 2014), even when their considered to be effective (Cleveland, Kalamas, & LaRoche, 2005). Consumers with high levels of environmental concern also try to minimize their purchases of non-green products, especially those with potentially negative environmental impacts (Liu & Segev, 2017). Therefore, environmental concern is positively associated with green purchases. It is recommended that most buyers who recognize themselves as environmentally conscious or responsible will carry out such responsibility and frequently buy green products in place of conventional alternatives. Thus, the following hypotheses are proposed:

H5a. *Environmental concern mediates the positive relationship between emotional value and green choice purchase behavior.*

H5b. *Environmental concern mediates the positive relationship between social value and green choice purchase behavior.*

3 | RESEARCH METHOD

3.1 | Sample, data collection, and research context

For this study, we employed quantitative methodology and collected data through an online survey, which is recognized as an effective data collection tool. LinkedIn and Facebook are two very popular online platforms that provide good geographic reach, help extend the sample size, and improve its representativeness (Scott & Vigar-Ellis, 2014). Therefore, our questionnaire was administered through the survey tool “[Selectsurvey.net](#),” shared on these social media platforms. The questionnaire questions were adapted from the existing literature (as discussed in the Measures section below).

3.2 | Demographics of the respondents

The survey questionnaire was shared among South African adults who had previously bought a non-edible or edible green product. The

TABLE 1 Demographics table

Demographic variables	Frequency	Percent
<i>Gender</i>		
• Male	54	50%
• Female	54	50%
<i>Age</i>		
• 19–29 Years	41	38%
• 30–49 Years	61	56%
• 50+ years	6	6%
<i>Educational qualification</i>		
• Lower than Grade 11	0	0%
• Grade 12	5	5%
• Grade 12 + diploma	10	9%
• Grade 12 + degree	93	86%
<i>Household size</i>		
• I live alone	18	17%
• 2 members	55	51%
• 3–4 members	32	29%
• 5 or more members	3	3%

respondent demographics are provided in table 1. Out of 117 filled responses, nine respondents did not complete the questionnaire. Hence, they were eliminated from the data analysis. Coincidentally, an equal number of respondents (54), were males and females. Respondents between 30 and 49 years constitute the majority, with 61% followed by 41% aged 19–29 years, and the remaining 6% above the age of 50. An overwhelming number—93 of the 108 respondents hold a college degree, 10 have a high school diploma, and remaining five respondents had completed secondary school.

3.3 | Measures

The survey items for the research are adapted from the previous research (Dholakia, 2001; Kim & Choi, 2005; Lin & Huang, 2012; Sheth et al., 1991). Each item is measured on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree).

3.3.1 | Knowledge seeking behavior

This measure was adapted from the scale by Dholakia (2001) and aimed to measure how the buyer actively seeks information. This construct described a difference between non-edible and edible green products. The survey consisted of three items that measured respondents' knowledge-seeking behavior about edible green products and three items that measured the respondents' knowledge-seeking about non-edible products. The mean score for the edible items was 3.55. For non-edible products, the same question as edible products was used and had a mean score of 3.4. Based on a *t*-test, no significant differences between knowledge-seeking behavior about edible vs. non-edible products were found. Confirmatory factor analysis further

confirmed that all items formed one cohesive construct with Cronbach's alpha of 0.91.

3.3.2 | Emotional value

This measure is based on the measure used by Lin and Huang (2012) and assesses the extent to which a purchase arouses positive feelings. The measure comprises three items. The mean for this measure was 4.23, whereas the score for Cronbach's alpha of 0.82.

3.3.3 | Social value

This measure draws on Sheth et al.'s (1991) work and measures a consumer's need or desire to feel associated with certain social groups through their purchases. The measure originally consisted of four items. However, after exploratory factor analysis, one of the items (namely, "I would buy green products on friends' suggestions or preferences to buy them") was rejected as insignificant and was therefore removed from the measure, as recommended by Hair Jr. et al. (1998) resulting in a construct with Cronbach's alpha of 0.83.

3.3.4 | Environmental concern

This measure is adapted from the scale used by Lin and Huang (2012) and reflects the consumers' consciousness and care toward the environment. It includes five items, resulting in a mean of 3.98, and a Cronbach's alpha of 0.84.

3.3.5 | Green choice purchase behavior

This construct draws on the work of Kim and Choi (2005) and measures the extent to which consumers select green products. It comprises four items, with a mean and Cronbach's alpha of 3.53 and 0.82.

3.4 | Measure assessment

To examine the factor structure of the data, we initially used exploratory factor analysis and extracted five factors with eigenvalues above 1.0. All items loaded onto their respective factors as expected, except for an item from the social value scale, as discussed above. Next, we performed a confirmatory factor analysis on all items to further examine the factor structure and calculate the measures' psychometric properties. We used software package R 3.2.2 (R Core team 2013), and the PLS predict procedure. Finally, we performed partial least squares (PLS) analysis, as recommended by Henseler et al. (2015). Before doing this, we conducted tests of normality, which showed that none of the assumptions of the PLS analysis were violated.

We calculated Cronbach's alpha and each measure's composite reliability (CR) for the scales' reliability and convergent validity. The values for all measures were greater than 0.7, indicating reliability and convergent validity (Bagozzi & Yi, 1988). The variance inflation factors (VIFs) were also assessed. No VIF was greater than 2.0, indicating discriminant validity of the measures and implying that multicollinearity would not pose a problem (Hair Jr. et al., 1998). Finally, we calculated the average variance extracted (AVE) to assess the validity. The AVE for all measures was greater than 0.5 (i.e., the threshold suggested by Hair Jr. et al., 1998).

We first used Fornell and Larcker's (1981) procedure to evaluate discriminant validity further. We found that no correlation between measures exceeded the square root of the AVE. Second, we used Henseler et al.'s (2015) procedure to construct the heterotrait-monotrait ratio matrix (HTMT). The values in the matrix were below the threshold value of 0.85 (Henseler et al., 2015). There was, therefore, enough evidence that the measures met the discriminant validity criteria. The confirmatory factor analysis results, Cronbach's alpha, the CR, and the AVE are presented in Table 2.

4 | RESULTS

Once the measurement model was confirmed, we conducted structural equation modeling using partial least-squares (PLS) analysis to assess the hypothesized relationships. Table 3 shows the Path analyses. It was hypothesized that knowledge-seeking behavior positively influences emotional value (H1) and social value (H2). Table 2 shows that knowledge-seeking behavior has a positive, significant effect on the emotional value, and Hypothesis 1 is therefore supported. However, the relationship between knowledge seeking and social value was not significant, and Hypothesis 2 is not supported. Hypothesis 3 proposes a positive relationship between emotional value and green purchases, and Hypothesis 4 proposes a positive relationship between social value and green purchases. The paths for both emotional value and social value to green purchase behavior are positive and significant in Table 2, Hypothesis 3, and Hypothesis 4 are therefore supported.

Hypothesis 5a suggests that environmental concern mediates the positive relationship between emotional value and green purchases. Hypothesis 5b suggests that environmental concern mediates the positive relationship between social value and green purchases. We test these two hypotheses by using the method advised by Baron and Kenny (1986). Three requirements need to be met to support the hypothesis of mediation. The first requirement is that the independent variables (emotional and social value) are significantly related to the mediator (knowledge-seeking) and the dependent variable (green purchases). The second requirement is that the mediator is significantly related to the dependent variable (green purchases). The third requirement is that when the mediator is included in the relationship between the independent and dependent variables, the significance and magnitude of the relationship between the independent and dependent variables must be eliminated (this is an indication of full mediation), or the relationship must become weaker (an indication of partial mediation).

TABLE 2 Measures, item loadings, and reliability

	Factor loadings	Composite reliability	Cronbach's alpha	Average variance extracted (AVE)
Knowledge seeking behavior		0.89	0.91	0.72
I prefer to gain substantial information on edible green products before purchase.	0.81			
I want to have deeper insight of the inputs, processes and impacts of the edible green products before I make a purchase.	0.86			
I prefer to check the eco-labels and certifications on edible green products before purchase.	0.87			
I prefer to gain substantial information on non-edible green products before purchase.	0.82			
I want to have deeper insight of the inputs, processes and impacts of non-edible green products before I make a purchase.	0.84			
I prefer to check the eco-labels and certifications on non-edible green products before purchase.	0.85			
Emotional value		0.88	0.82	0.72
Buying a green product instead of a conventional product would feel like making a good personal contribution to something better.	0.85			
Buying a green product instead of a conventional product would feel like morally the right thing to do.	0.86			
Buying a green product instead of a conventional product makes me feel like a better person.	0.82			
Social Value		0.89	0.83	0.74
Purchase of green products will help me gain social approval.	0.88			
Purchase of green products will make a positive impression on my friends.	0.92			
Green products could improve the way I am perceived.	0.80			
Environmental Concern		0.89	0.84	0.62
It is important to me that the products I use do not harm the environment.	0.78			
I consider the potential impact of my actions when making many of my purchasing decisions.	0.80			
My purchase habits are affected by my concern for our environment.	0.87			
I am concerned about wasting the resources of our planet.	0.78			
I am willing to be inconvenienced in order to take actions that are more environmentally friendly	0.69			
Green choice behavior		0.88	0.82	0.66
I make a special effort to buy paper and plastic products that are made from recycled materials.	0.82			
I have switched from conventional substitute products to green products for ecological reasons.	0.85			
When I have a choice between a green product and a conventional substitute, I purchase the one less harmful to other people and the environment.	0.84			
I have avoided buying a product because it had potentially harmful effects.	0.72			

TABLE 3 Structural equation modeling results: Path coefficients for direct model (excluding environmental concern), and hypothesized mediation model

Path	Direct model	Model mediated by environmental concern
Knowledge seeking → Emotional value	0.19*	0.19*
Knowledge seeking → Social value	0.16 ns	0.16 ns
Emotional value → Green choice behavior	0.39***	0.13*
Social value → Green choice behavior	0.24**	0.11 ns
Emotional value → Environmental concern		0.34***
Social value → Environmental concern		0.16*
Environmental concern → Green choice behavior		0.69***

Note: *p*-values reflect results of two-tailed tests.

Abbreviation: ns, non-significant.

p* < 0.05. *p* < 0.01. ****p* < 0.001.

Table 2, Column 1, shows that emotional value and social value have a significant positive relationship with green purchases, and Column 2 shows that both emotional value and social value also have a significant positive relation with environmental concern. Hence, the first requirement is met. Column 2 also shows that environmental concern has a significant positive relation to green purchases. Hence, the second requirement is met. When Column 2 is compared to column 1 and the relationships of emotional value, and social value to green choice are compared, we see that the coefficient for emotional value has reduced from 0.39 ($p < 0.001$) to 0.13 ($p < 0.005$), hence partial mediation is observed. There is thus partial support for Hypothesis 5a. In analyzing the environmental concern effect on the relation between social value and green purchases, we compare Column 1 (direct model) with Column 2 (mediated model). It is evident that the relationship has reduced from 0.24 ($p < 0.001$) to 0.11 (non-significant). This shows that environmental concern fully mediates the relationship between social value and green purchases, and Hypothesis 5b is supported.

For the overall model (the overall model mediated by environmental concern), the root mean square error of approximation (RMSEA) was 0.043, and the standardized root mean square residual (SRMR) was 0.045. The normed chi-square (chi-square/degrees of freedom) was 1.71. The values for RMSEA, SRMR, and the normed chi-square all indicated a good fit (Hair et al., 2014).

5 | DISCUSSION AND CONCLUSION

To address the existing gaps in the literature, we aimed to explain the formation and role of consumption values in green purchases. We

examined the role of knowledge seeking in developing these values with a focus on emotional and social values, as well as looked at the mediating role of environmental concern in driving green purchases.

This study contributes to the current discussion on the role of consumption values in driving green behavior (Almossaw, 2014; Liobikiene & Bernatoniene, 2017; Moser, 2016; Newton et al., 2015; Paul et al., 2016; Ritter et al., 2015; Russo, Confente, et al., 2019; Russo, Galiano, et al., 2019; Wang et al., 2014) in several ways. First, the data in this study support the TCV in explaining green purchase behaviors (Sheth et al., 1991) as we demonstrate that emotional value and social value are both positively linked to green purchases. Consumers driven by emotional value would purchase a green product as they feel it is “the right thing to do.” Emotional value constitutes a moral responsibility for them as they believe they are fulfilling their responsibility by contributing to the planet’s wellbeing by partaking in sustainable consumption (Chwialkowska, 2021; Lin & Huang, 2012).

Van Doesum et al. (2022, p. 2) regard Nielsen et al. (2022) finding as fundamentally “dyadic measure” forecasting wider environmental concerns relevant to society’s future and connected to the social capital development. They also found links between another dyadic measure of environmental concerns and social value. It is essential to acknowledge that there are numerous elements to developing sustainable societies. “Being socially mindful is likely to be one of them.”

Individuals motivated by emotional value are buyers who normally join in other green behaviors such as electricity and water saving, recycling, etc. We also support the recently introduced notion (Liobikiene et al., 2017) that social pressures are a key driver of green behavior and that consumers might be purchasing green products for image and status enhancement. The correlation results showed a positive relationship between social and emotional value and green purchase behavior. The regression analysis also showed a positive relationship, which means that both emotional and social values are a strong predictor of green purchase behavior among South African consumers. As balancing value and cost perceived by the consumer engaging in green behavior can be achieved through communicating the value or benefits of the behavior (Chwialkowska & Flicinska-Turkiewicz, 2020), green product promotion is a means to reduce the negative environmental effects of consumption (de Medeiros & Ribeiro, 2017; Liobikiene et al., 2017).

Second, we investigate how knowledge-seeking influences the development of consumption values and establish a positive link between knowledge-seeking and these consumption values. We also extend Dholakia’s (2001) findings, as we show that information-seeking is associated with social and emotional value and not just social value. While Dholakia (2001) focused solely on social value, our findings expand the discussion by showing that emotional value clearly plays a stronger role in driving green purchase decisions compared to social value (which is motivated by the individual’s social group). We thus demonstrate the importance of creating emotional value rather than focusing on social pressures.

Third, we shed light on how environmental concern effectively works as the mechanism through which values impact green purchase behavior. While prior studies (e.g., Almossaw, 2014;

Liobikiene & Bernatoniene, 2017; Moser, 2016; Newton et al., 2015; Paul et al., 2016; Ritter et al., 2015; Russo, Confente, et al., 2019; Russo, Galiano, et al., 2019; Wang et al., 2014) concluded that certain values are linked to green purchases, they have not attempted to understand the mechanism through which values affect green purchases. We demonstrate that environmental concern is the mechanism through which emotional value and social value influence green purchases by showing that environmental worry has a stronger relationship with green purchases than both emotional value and social value and that indeed environmental concern is the mechanism through which emotional value and social value influences green choice.

A limitation of this study is that only customers with access to the internet and social media were studied. Moreover, our sample captured mainly customers with higher education. While this segment does not represent South Africa's population, it might be important to target this country as it has adequate purchasing power and environmental knowledge to purchase green products consciously. In addition, this might also be the segment actively engaging in knowledge-seeking about green products. Therefore, while we cannot generalize our findings for the entire population of South Africa, we offer important insights into the consumption values of the key target market for green products in this country.

Future research should attempt to study a larger variety of consumer segments and compare study findings based on the consumers' demographic characteristics such as income and education level. While existing research focused on how to increase a consumer's emotional value so that they want to purchase green products, our results suggest that the focus of forthcoming studies should shift toward finding ways to generate environmental concern among consumers as environmental concern is the mechanism through which values are translated into actual green purchases. Therefore, marketers and sellers need to work closely with pro-environmental groups.

We also encourage further longitudinal research focusing on how green purchase behaviors change over time in response to marketing communication programs and policy changes. An appealing future research opportunity can be carrying out comparative studies contrasting pro-environmental values and behaviors in developed vs. developing countries. As contextual factors, such as policies, regulations, or access, will impact consumers' knowledge and access to purchase green products, future studies should also compare different emerging markets. We thus echo previous calls in the literature (e.g., Chwialkowska et al., 2020; Soyez, 2012) to focus on studying emerging economies and calls for cross-cultural comparisons (Chwialkowska 2021; Chwialkowska et al., 2020).

5.1 | Implications for marketers, green products manufacturers, and policymakers.

The research findings draw attention to three important implications for marketers, manufacturers, and policymakers. First, the analysis

revealed a strong relationship among environmental concerns and green purchase behavior. The positive effect of knowledge-seeking behavior on consumers' emotional value shows that potential purchasers of green products are seekers of information. As such, marketers should be trying to provide adequate information to get consumers interested in green products. Generating interest in how green products are environmentally sustainable is central to increasing purchases. Marketers should emphasize highlighting the connection between unsustainable consumption practices and the degradation of the environment. The risk theory (Dholakia, 2001) implied that people are more willing to take action when they realize that they might lose rather than acquire something. Marketers and public policymakers must influence the consumers' environmental concerns to facilitate a positive environmental attitude, translating into more frequent green purchase behavior. "Environmental consciousness at the consumer level is driven by factors that include more media exposure, better attentiveness to environmental problems, social group pressure, strict policies and legislation" (Dagher & Itani, 2014, p. 190). Purchasing at the green supply chain end means green efforts cannot be successful without "integrating the consumer's environmental attitudes and behaviors" (Couto et al., 2016, p. 6).

Second, emotional value depicts a positive relationship with green purchase behavior. It is suggested that establishing moral obligation awareness about something is more difficult than changing short-term attitudes (Minton & Rose, 1997). Therefore, it is important to develop pro-environmental attitudes early on. Existing research suggests that environmental awareness training can lead to good environmental behavior when youth reach adulthood (Minton & Rose, 1997). Thus, children should be educated to internalize moral responsibility (and increase the emotional value of future green purchases) to protect the environment from an early age. Hence this emotional value in the direction of the environment can be used to promote green consumption behaviors when they grow up. Public policymakers should be encouraged to teach school children about the degradation effects of the environmental and practices of unsustainable consumption from a young age. As children influence parents' purchasing decisions, their role should not be underestimated. Marketers must wisely manage this knowledge and capitalize on advertising promotions showing the causal connection between green purchases and their influence on the environment.

Third, knowledge-seeking influence explains that the unique experience linked with a green product encourages green purchase behavior. Therefore, the green marketing plans shall emphasize illustrating the green product novelty. In addition, they should try to create consumer interest for them. For example, one approach successfully employed by Apple is delaying new product model release while providing only a few products change clues. Similarly, superstores can introduce advertising campaigns to develop new green product choices expectations by focusing on the product's distinctive environmental and health attributes and what makes them different. Marketers can also emphasize new product designs and techniques or implement new packaging to enrich green products' presentation to spark curiosity.

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