Green Brand Positioning and Attitude towards Green Brands: Mediating Role of Green Brand Knowledge among Green Consumers in the Kathmandu Valley

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Abstract

Background: The issue of sustainability has attracted global brands to take initiatives in green concerns. Following the footsteps of global brands, Nepali brands have designed their products to address such green concerns. As a result, green consumers’ behaviors have gained the attention of different streams of researchers and practitioners.

Purpose: The purpose of this paper is to examine the mediating role of Green Brand Knowledge (GBK) on Green Brand Positioning (GBP) and Attitude towards Green Brands (ATGB).

Research Methodology: This paper adopted a quantitative approach to achieve the research objective. A cross-sectional survey research design and purposive sampling technique were employed to collect data from 201 green-aware customers of the Kathmandu Valley. The process macro was applied to test the mediated hypotheses.

Results: The result revealed that GBP significantly influences GBK and ATGB, and GBK partially mediates the relationship between GBP and ATGB.

Conclusion: This paper concluded that the GBP and GBK of customers could change the ATGB. Since ATGB is a significant variable, Nepali green brands could invest in a promotional campaign, as a result, GBK and GBP could change the positive attitude toward green brands.

Implication: This paper could provide two significant implications. First, it can help to enrich the existing body of literature on green branding by drawing from signaling theory (ST) and the theory of planned behavior (TPB). Second, this paper could help managers and marketers to design GBP strategy as it is regarded as a critical aspect of green brands.

Originality: This paper is among the earliest work to explain green attitude by applying the ST and TPB in the Nepali context.

Keywords: Attitude towards green brands, Green brand awareness, Green brand image, Green brand positioning, Green brand knowledge.

JEL Classification: M31
Introduction

The issues of green initiatives have substantially attracted the attention of different stakeholders, such as the government, companies, and consumers. Business and consumer priorities have shifted toward green production and consumption practices as a result of the increased emphasis on preserving the environment (Sreen et al., 2018). Consumers pay more attention to environmental issues, so various businesses are trying to implement specific activities to attain the green objective of sustainable development (Raska & Shaw, 2012; Verma et al., 2019). Now, customers have become sensitive to environmental issues and changing their preference for green products and services. Baiquni and Ishak (2019) claim that the increased demand for various eco-friendly items is a result of customers’ growing environmental concerns. As green products and brands increase in marketing, the scientific study of green behavior has been fueled recently.

Attitude towards the green brand (ATGB) is one of the critical variables of understanding green behaviors. ATGB refers to an individual’s indication of engaging in pro-environmental behavior and positively responding to green marketing strategies (Sheng et al., 2019). It is documented that consumers’ knowledge regarding green brands and products is positively associated with their ATGB (Grimmer et al., 2014). Huang et al. (2014) found that the GBP-implemented strategies influence ATGB organizations to boost consumers’ GBK. GBP refers to communicating the environmental attributes of a product or service to appeal to consumers seeking environmentally responsible solutions (Ottman et al., 2011). In this paper, GBP refers to consumers’ perceived value of green products based on environmental attributes, a quality that affects their preference for green products. Moreover, GBK is a green brand node in memory, with a significant number of associations with environmental commitments and concerns are associated (Huang et al., 2014). It implies that information about green brands is consistently conveyed to consumers, which in turn forms consumer knowledge and attitude is green brand knowledge.

Several studies have investigated green consumer behaviors in the Nepali context. First, Subedi and Tamo (2018) found that Nepalese consumers have limited knowledge about environmental issues and are generally not aware of green branding initiatives. Second, Devkota and Thapa (2016) found that some Nepalese companies made vague or unverified green claims to attract consumers. Third, Adhikari and Dangol (2019) found that eco-friendly products are not widely available in Nepal, and consumers face barriers to accessing them, including high prices and limited availability. To the best of the researchers’ knowledge, the mediating role of GBK in the relation between GBP and ATGB has not been examined in the Nepali context. Therefore, underpinned by the ST and TPB, this paper intends to investigate the mediating role of GBK concerning GBP and ATGB among green customers in the Kathmandu Valley.

This paper has five sections. Section II examines the literature related to the present study. Section III describes the methodology, including the research approach, design, sample, and data collection procedure. Section IV states the result of hypotheses testing. Finally, the paper discusses the findings and implications for managers, marketers, and researchers.

Review of Literature and Hypotheses Development

**Green Brand Positioning (GBP) and Attitude towards Green Brands (ATGB)**

The relationship is explained by the signalling theory by Spence (1973). This theory states that people and organizations employ specific signals or cues to inform people about their traits, features, and intentions (Spence, 1973). This paper argues that businesses using environmentally friendly-related
signals to communicate and promote their commitment to sustainability reveals a positive influence on consumer’s attitudes toward green brands (e.g., Atkinson et al., 2020; Lin et al., 2017; Mohd et al., 2016; Wang et al., 2018). Based on the argument, this paper hypothesized:

**Hypothesis (H1): GBP positively influences ATGB.**

**Green Brand Positioning (GBP) and Green Brand Knowledge (GBK)**

The theoretical logic for the relation is explained by signalling theory (Spence, 1973). This theory suggests that companies use various signals or cues to communicate their environmental commitment and sustainability practices to consumers (Banerjee et al., 1994). When a consumer has favorable perception of green brands/products, the brand awareness and image of the green brand could develop better green brand knowledge (e.g., Huang et al., 2014; Li et al., 2019; Kumar et al., 2021; Mohd et al., 2016). Based on the argument, this paper hypothesized:

**Hypothesis (H2a): GBP positively influences GBK (Green Brand Awareness).**

**Hypothesis (H2b): GBP positively influences GBK (Green Brand Image).**

**Green Brand Knowledge (GBK) and Attitude towards Green Brands (ATGB)**

The theoretical logic for the relation is explained by the Theory of Planned Behavior (TPB) (Ajzen, 1991). Regarding green branding, consumers’ knowledge about green brands can play a crucial role in shaping their attitudes (Amoako et al., 2020). Several researchers found a positive relationship between green brand knowledge and attitude towards green brands (Bala et al., 2021; Kautish et al., 2019; Sari et al., 2021; Wang, 2017). Based on the argument, this paper hypothesized:

**Hypothesis (H3a): GBK (Green Brand Awareness) positively influences ATGB.**

**Hypothesis (H3b): GBK (Green Brand Image) positively influences ATGB.**

**Green Brand Positioning (GBP) and Attitude towards Green Brands (ATGB): Mediating Role of Green Brand Knowledge (GBK)**

Previous studies have reported that GBP positively influences ATGB (e.g., Atkinson et al., 2020; Wang et al., 2018) and GBK (e.g., Kumar et al., 2021; Li et al., 2019). The result suggests that green brand positioning of organizations can develop green brand knowledge and positive attitude toward green brands. However, very limited studies have investigated the mediating role of GBK concerning GBP and ATGB in the Nepali context. Therefore, this paper attempted to examine the mediational mechanism by applying the theory of planned behavior and the signalling theory. This paper argues that the GBP of organizations develops GBK, and as a result, positive ATGB would be developed. Based on the argument, this paper hypothesized:

**Hypothesis (H4a): GBK (Green Brand Awareness) mediates the relationship between GBP and ATGB.**

**Hypothesis (H4b): GBK (Green Brand Image) mediates the relationship between GBP and ATGB.**

![Fig 1. Conceptual Framework](image)
Research Methods

Research Approach
The paper applied a quantitative approach to investigate the proposed hypotheses and assumed that ATGB, GBP, and GBK could be operationalized and measure the independence of researchers’ values and beliefs.

Research Design
The purpose study was not to track changes in independent variables such as GBP and GBK to investigate their effects on dependent variables such as ATGB. Therefore, the cross-sectional survey research design was employed. It is consistent with the prior study of Pokhrel (2022).

Population and Sample
The population of the study was green-aware customers from Kathmandu Valley. The population of the study was selected to capture attitudes toward green products. The respondents have either prior purchase experience with green brands or products or know at least a few names of green brands. Second, with recent rapid urbanization and population increase, the Kathmandu Valley is a densely populated urban area. Although it is difficult to establish exactly environmentally concerned consumers are located, it seems reasonable that urban regions with higher levels of education and access to knowledge could have a higher concentration of such consumers. Since the database for green consumers is not available to researchers, this paper applied a purposive sampling technique to collect data from the respondents. Third, the sample size could range from 185 to 370 based on the recommendation of Hair et al. (2016). There are 19 items (See the appendix section) to capture the response of three variables. Because respondents are homogenous regarding green purchase behavior, this paper assumed that the sample size of 201 would represent the population.

Measures/ Instruments
Five items measured the demographic variable, whereas a 5-point Likert Scale anchored the second part of the measures (1= Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5= Strongly Agree).

Attitude toward Green Brands (ATGB) Scale
ATGB Scale of five items was adopted from Mehraj et al. (2022). A sample item included: ‘I believe that green brands/products are environment friendly’.

Green Brand Positioning (GBP)
GBP Scale was adopted by Mehraj et al. (2022). A sample item included: ‘The products of green brands/products are energy efficient’.

Green Brand Awareness (GBA)
The GBA Scale of five items was adopted from Mehraj et al. (2022). A sample item included: ‘The products of green brands/products are energy efficient’.

Green Brand Image (GBI)
The GBI scale was adopted by Mehraj et al. (2022). A sample item included: ‘The products of green brands have a full quality guarantee’.

Data Collection Procedure
The printed and digital questionnaire was distributed to 300 respondents from December 2022 to January 2023. We discussed the purpose, confidentiality, and right of withdrawal with the respondents. Out of the 300 distributed questionnaires, 30 were not returned, 12 were unengaged, and 9 had missing values of more than 20%. Therefore, 249 responses were found appropriate for further data analysis.
Demographic Profile of Respondents

Most respondents were in the age group of 20-30 (n=201 or 80.7%) and with a gender profile of male (n=134 or 53.8%). Most respondents have completed their Bachelor’s Degree (n=132 or 53%). Finally, the monthly income ranges high at 25,000-50,000 (n=113 or 45.4%), followed by above 50,000 (n=77 or 30.9%).

Data Analysis and Result

Regression is a statistical and data analysis technique used to investigate the connection between a dependent variable and one or more independent variables (Hastie et al., 2009). This paper applied the Ordinary Least Square (OLS) regression for testing hypotheses because this technique has been found significant in testing the influence of independent variables such as GBP and GBK on ATGB. I used the regression method to est the normality assumption, which showed Kurtosis values ranging from +2 to -2 and Skewness values from +3 to -3. The result illustrated the normality of the data set (Gaskin, 2021). Likewise, multicollinearity was tested by applying Variance Inflation Factors (VIF) which showed values ranging from 1.327 to 1.464, indicating no issue of multicollinearity (Gaskin, 2021). Moreover, the homoscedasticity test illustrated that variables’ residual errors were dispersed around a diagonal line, showing no issues of heteroscedasticity (Gaskin, 2021). Since the major assumptions of OLS are satisfied, this paper tested the direct hypotheses by applying SPSS.

Table 1 Result of Direct Hypotheses

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Beta Coefficient</th>
<th>R2</th>
<th>F</th>
<th>t-value</th>
<th>P-Value</th>
<th>Hypotheses Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1. GBP→ ATGB</td>
<td>0.327</td>
<td>0.446</td>
<td>65.785</td>
<td>5.461</td>
<td>0.000</td>
<td>Yes</td>
</tr>
<tr>
<td>H2a. GBP→ GBA</td>
<td>0.685</td>
<td>0.238</td>
<td>77.129</td>
<td>8.782</td>
<td>0.000</td>
<td>Yes</td>
</tr>
<tr>
<td>H2b. GBP→ GBI</td>
<td>0.624</td>
<td>0.205</td>
<td>63.522</td>
<td>7.970</td>
<td>0.000</td>
<td>Yes</td>
</tr>
<tr>
<td>H3a. GBA→ ATGB</td>
<td>0.218</td>
<td>0.446</td>
<td>65.785</td>
<td>5.251</td>
<td>0.000</td>
<td>Yes</td>
</tr>
<tr>
<td>H3b GBI→ ATGB</td>
<td>0.173</td>
<td>0.446</td>
<td>65.785</td>
<td>4.178</td>
<td>0.000</td>
<td>Yes</td>
</tr>
</tbody>
</table>

(Note. ATGB: Attitude towards Green Brands; GBA=Green Brand Awareness; GBI=Green Brand Image; GBP=Green Brand Positioning)

First, the result indicates that GBP significantly influences ATGB (β=0.327, t=5.461, p<0.05). It reveals that GBP explains 44.6% of variance on ATGB. Second, the result indicates that GBP significantly influences GBA (β=0.685, t=8.782, p<0.05). It reveals that GBP explains 23.8% of variance on GBA. Third, GBP significantly affects GBI (β=0.624, t=7.970, p<0.05). It reveals that GBP explains 20.5% of variance on GBI. Fourth, the result indicates that GBK with its two major dimensions, GBA and GBI, have a significant positive influence on ATGB (β=0.218, t=5.251, p<0.05) and (β=0.173, t=4.178, p<0.05) respectively. It reveals that 65.785% of the variance on ATGB is explained by GBK (See Table 1).

Mediation Hypotheses

Mediation analysis is a statistical method used to examine the mechanisms by which an independent variable (X) affects a dependent variable (Y) through one or more intermediate variables, also known as mediators (M) (Hayes, 2015). Furthermore, mediation analysis remains important for understanding the mechanisms underlying the relationship between two variables, even in complex models with multiple moderators and mediators (Muller et al., 2018). Therefore, this paper applied Process Macro 3.5 Version to estimate the mediational hypotheses because this technique produces relatively more robust than other meditational techniques, such as Barron and Kenny method (Hayes, 2015). The result of the mediational hypotheses is illustrated in Table 2.
Table 2 Result of Mediated Hypotheses

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Total Effect</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
<th>t- statistics</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>4a. BP&gt;GBA&gt;ATGB</td>
<td>0.585</td>
<td>0.408</td>
<td>0.177</td>
<td>0.103</td>
<td>0.296</td>
<td>6.959</td>
<td>Significant</td>
</tr>
<tr>
<td>4b. GBP&gt;GBI&gt;ATGB</td>
<td>0.585</td>
<td>0.446</td>
<td>0.139</td>
<td>0.067</td>
<td>0.288</td>
<td>7.621</td>
<td>Significant</td>
</tr>
</tbody>
</table>

(Note. ATGB=Attitude toward Green Brands, GBA=Green Brand Awareness, GBI=Green Brand Image, GBP=Green Brand Positioning).

H4a examines whether GBA mediates the relationship between GBP and ATGB. The result revealed a significant indirect effect of GBP on ATGB (β= 0.177, t = 6.959). Furthermore, the direct effect of GBP on ATGB in the mediator’s presence was also significant (β = 0.408, p < 0.001). Therefore, GBA partially mediated the relationship between GBP and ATGB. H4b examines whether GBI mediates the relationship between GBP and ATGB. The result revealed a significant indirect effect of GBP on ATGB (β= 0.138, t = 7.621). Moreover, the direct effect of GBP on ATGB in the presence of the mediator was also significant (β = 0.0.446, p < 0.001). Henceforth, GBI partially mediated the relationship between GBP and ATGB.

Discussion

First, the result shows that GBP has a significant influence on ATGB. It is consistent with previous studies (e.g., Atkinson et al., 2020; Mohd et al., 2016; Wang et al., 2018). The result implies that consumers with green positioning have a significant positive attitude toward green brands. The result is aligned with the signaling theory of Spence (1973). The argument states that the effort of companies to become environmentally friendly brands could send a signal to customers, and as a result, the positioning of the green initiative could change the positive attitude toward green brands or products.

Second, this study revealed that GBP has a significant influence on GBK. It confirms other studies (e.g., Kumar et al., 2021; Li et al., 2019; Mohd et al., 2016). The positioning campaign of companies regarding green initiatives could develop knowledge about green brands and products. Customers’ knowledge of green products is a memory associated with environmental preservation (Setiyarini et al., 2022). The positioning of green products or brands helps to strengthen brand image and brand awareness. The GBP strategy’s promotional and advertising efforts improve customers’ impressions of the green brand, increasing consumers’ GBK, brand awareness, and brand image (Mourad & Ahmed, 2012). This result is aligned with the signaling theory of Spence (1973). The result reveals marketing communications create a favorable impression in consumers’ minds and can be used to carry out the green brand positioning strategy. This favorable perception will lead to better green brand knowledge through brand awareness and image.

Third, this study suggests that GBK significantly influences the consumers’ ATGB. The result is similar lines with the findings of previous research studies (e.g., Bala et al., 2021; Sari et al., 2021). Consumers with experience and memory of green brands have a positive attitude toward green brands. The positive brand attitude shows consumers have severe environmental concerns that attract them to green brands. They mentally start to see these brands as a significant aspect of themselves (Suki et al., 2016).

Finally, this study further enhanced the current literature by examining the mediating impact of GBK on the relationship between GBP and consumers’ ATGB. The study’s outcome suggests that GBK partially mediates the relationship between GBP and consumers’ ATGB (Zhang et al., 2020). The result implies that the GBP of companies and GBK both could change the attitude toward green brands. This paper has attempted to explain the result by the signaling theory and the theory of planned behavior. The
initiative of positioning by green brands sends a signal to consumers, and the signal helps to change the attitude toward green brands. Likewise, consumers’ knowledge about green brands develops a positive attitude towards green brands.

**Implications for the study**

*Theoretical Implications*

This study makes important contributions to the existing literature. This paper has investigated ATGB by drawing from signaling theory and the theory of planned behavior. This study makes an important contribution to the brand positioning literature. Likewise, understanding the mediating role of GBK in relation to GBP and ATGB has enriched the green and branding literature in the Nepali context. This has provided a meaningful understanding of green positioning, knowledge, and attitude toward green brands for managers, marketers, and researchers.

*Managerial Implications*

From a managerial perspective, the study is anticipated to offer valuable insights to managers and marketers. First, the current study’s result implies that the companies’ GBP strategy should be regarded as a crucial component in creating promotional messages. This encourages consumers to respond favorably to a firm’s green initiatives. A successful GBP strategy allows marketers to differentiate their products from their rivals. The outcome, therefore, implies that a well-executed GBP strategy can result in a more positive GBK among customers. Second, this research supports the notion that GBK is an important factor that could improve customers’ attitudes toward green products. Therefore, businesses should convey to consumers that they play a critical role in promoting a green business environment in the cut-throat competition. Consumers’ ability to evaluate would improve green brands and products if we effectively explain the features of a green product or brand to potential customers. Third, this study suggests that businesses should create a distinctive green brand image to enhance customers’ GBK and communicate green products/brands from other brands. As a result, high-quality green products could be provided by inadvertently boosting consumers’ awareness and knowledge. Lastly, the current study shows that GBK plays a substantial mediating function in the link between GBP and consumers’ ATGB. This study substantiates that companies should invest in developing green positioning and brand knowledge strategy to change attitudes toward green brands.

*Limitations and directions for the study*

Although this paper has provided several meaningful contributions, the result of the study should be interpreted with caution. First, this paper applied a cross-sectional survey design to examine the research objective. Future studies could apply experimental design to establish causality among variables. Second, data were collected from green-aware customers in the Nepali context. Future studies could replicate this study in different countries, cultures, and contexts. Finally, researchers could incorporate environmental concern as an independent variable in the existing framework.

*References*


APPENDIX
QUESTIONNAIRES

Please indicate the degree of your agreement or disagreement with each statement by checking one of the five alternatives. *(Strongly Disagree=1, Disagree=2, Neutral=3, Agree=4, Strongly Agree =5)*

**Part-A: Main Questionnaires**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Statements</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I believe that green brands/products are environmentally friendly.</td>
<td></td>
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<tr>
<td>2</td>
<td>I believe that using green brands/products can reduce environmental impact.</td>
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<td></td>
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<tr>
<td>3</td>
<td>I think the functions of green brands/products are more reliable than other brands.</td>
<td></td>
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<td>4</td>
<td>I consider green brands can represent my socioeconomic status.</td>
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<td></td>
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<tr>
<td>5</td>
<td>I think the price of products of the green brands is satisfactory to me.</td>
<td></td>
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<tr>
<td>6</td>
<td>The products of green brands are energy efficient.</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>7</td>
<td>The products of green brands use advanced technology.</td>
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<td></td>
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<tr>
<td>8</td>
<td>The Green brand products use eco-labelling.</td>
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<tr>
<td>9</td>
<td>Green brand products are ISO certified.</td>
<td></td>
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<tr>
<td>10</td>
<td>I am quite familiar with green brands and their products.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Green brands are the first to come to mind when discussing eco-friendly brands/products.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>14</td>
<td>I have often read articles/blogs about green brands.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>The products of green brands have full quality guarantees.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>The function of the products of green brands fits my needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>The green brands/products are made of recyclable materials.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>19</td>
<td>Green brands inspire environmental debate.</td>
<td></td>
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</tr>
</tbody>
</table>

**Part- B: Demographic Questionnaires**

Circle the appropriate responses from the below questions.

1. How old are you? (in years)
   - a. Less than 20
   - b. 20-30
   - c. 31-40
   - d. Above 40

2. What is your gender?
   - a. Male
   - b. Female
   - c. Others

3. What is educational level?
   - a. Bachelor Level
   - b. Master Level
   - c. Above Master

4. What is your monthly family income?
   - a. Below 25,000
   - b. 25,000-50,000
   - c. Above 50,000

5. Mention at least two green brands you are aware of.