

Young Consumers' Attitude Towards Green FMCG Products: An Analysis of the Mediating Effect of Concern for Health Factors

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ABSTRACT

As population is increasing in the world the consumption is also rapidly increasing this has resulted in a lot of harmful disposal concerns and overall worldwide health concerns. In this study the authors have focused to explore how young consumers in Delhi form attitudes toward green fast-moving consumer goods (FMCG). Furthermore, few other prominent and necessary factors have also been included in this research like: environmental knowledge, environmental concern, green satisfaction and personal health concern. Due to social media trends and increased level of awareness in the society the young Indians are increasingly exposed to messages about sustainability and healthy living. Therefore, it becomes motivating research scope due to rapid changing world dynamics. With these investigations novel direct, indirect and mediating pathways can be explored and further used to embrace in the market functioning systems for proper sustainable development within nation's economy. This study has acquired data from 420 young consumers residing in the capital city Delhi and this data was collected through an online Likert-scale standardized questionnaire. For the analysis smart PLS SEM software was adopted to test hypothesis and mediating factors levels. The results of the investigations concluded that the construct of environmental knowledge strongly and directly strengthens green attitudes as well as it strongly influences them indirectly by increasing young consumers health concern mindset. Then it was found out that the factor Health concern is a meaningful mediator within the model, this proves that the young consumers of Delhi often connect environmental information with personal wellbeing. Lastly the other construct of model which are: Environmental concern and green satisfaction found to be positively contributing towards the optimistic green attitude. Hence, strengthening the notions that the authors adopted in the study which is "both emotional and evaluative factors play important roles for the adoption of sustainable consumption". Henceforth, the authors can conclude that Delhi young consumers have highly connected with the idea of health promising sustainable consumption for better future. This suggests promising opportunities for marketers and educators to design communication strategies that link sustainability benefits with personal health outcomes. The study concludes by noting its Delhi-specific focus and recommends future research across other regions and demographic groups to broaden understanding of youth-driven green consumption in India.

Keywords: Green Attitude, Environmental Knowledge, Health Concern, Environmental Concern, Green Satisfaction, Youth Consumers and FMCG

Introduction

It has been observed that in Delhi's hectic metropolitan setting, many young professionals and college students are increasingly getting connected with green FMCG options. Hence, it is clearly visible that this ongoing movement is directly related to India's greater move toward sustainability. Nonetheless, young consumers opinions on these things extend to greater scopes as they become popular because of their fundamental awareness quality. According to recent surveys, young consumers buying frequency of eco-friendly products depends largely on environmental information. Personal health worries play a big role too. They mix with environmental beliefs and everyday buying habits. That comes from work like (Michaelidou and Hassan., 2018; Bashir, Shams, and Syed., 2019). These mixed reasons stand out a lot in big cities such as Delhi. Pollution keeps climbing there. There exist many types of issues like nowadays lifestyle-related health concerns are also on the increase and young consumers are generally more mindful of sustainability. Thus, all such factors influence how customers view things (Goswami and Chouhan., 2015).

This study investigates how environmental knowledge, environmental concern, and green satisfaction affects green attitudes especially young consumers. It helps in understanding how health concerns act as a bridge between environmental awareness and green attitudes. Therefore, this study focuses on the analysis of psychological factors such as environmental, health concerns and green satisfaction, as they highly influence intellectual elements which requires knowledge. The authors seek to elaborate the layout of how environmental convictions engages with young customers in a big Indian metropolis like New Delhi also this study is highly connected with the Theory of Planned Behavior. Those theories stress how beliefs, emotions, and expected outcomes all play roles in building eco-friendly attitudes (Ajzen., 1991; Steg and Vlek., 2009). Past research shows clear links between environmental knowledge and pro-environmental attitudes. Kollmuss and Agyeman covered that in 2002. As per the study of (Paul, Modi, and Patel., 2016) it is found that when it comes to health concern as a mediator has not gotten much attention in the past, therefore, this is true especially for those studies which fails to put emphasis on the most important Indian urban young consumers population, because it young consumers are highly influenced by market trends and highly conscious about their health so they see green FMCG products as safer, trustworthy and healthier choices. (Biswas and Roy., 2015) stated that existing theories and health concern driven actions are highly popular in real world scenarios and regularly affects consumption patterns of the young shoppers.

So, the young consumers from Delhi region particularly college-going students and those just beginning their professional careers develops a deep emotion for their overall lifestyle and emerges as an interesting group to study, as they are considerably more conscious of environmental issues (Goswami & Chouhan, 2015); (Thakur, Singh & Singh, 2025). Young consumers often do not think about sustainability as a bigger picture but they are more focused on their own lifestyle sustainability as it is also tied to ideas of safety, cleanliness, and a healthier lifestyle.

Though young consumer has been emerging as sustainability ambassadors and have been highly vocal about global warming and environmental degradation issues. Still a lot of variables and influencing circumstances have been left out in previous studies as it critical to explore closely at how these different perceptions regarding young consumers environmental awareness, personal health considerations and satisfaction with green products come together to shape their overall attitude toward green FMCG products. It has been found that most of the research conducted in Indian setting prominently addresses the large behavioural aspects of the consumers whereas only few of those delves in in the constructs of concern for personal health, because it plays a very important role in refining the connection between environmental knowledge and green attitudes (Yadav & Pathak, 2017; Paul et al., 2016). Hence, this existing research gap has emerged to be highly noticeable when young consumers are considered. Therefore, this research study this gap and analyses hypotheses mentioned and mediating effects of health concerns in the context on Delhi's young Indians' green leanings in the FMCG world.

Literature Review

Different and intellectual, psychological and behavioural factors need to be explored in depth to understand exactly how young consumers feel about green fast moving consumer goods existing within the economy especially when it comes to the notion of sustainable consumptions. Thus, factors like environmental knowledge, concern for the environment, green satisfaction, and health concerns can be a great start to for this research as they stabilize the full functioning of a consumers purchasing decision pattern also explores multiple cognitive influencing factors.

Previous literature has stated that various environmental knowledge aids in pro environmental attitudes and behaviors. (Kollmuss and Agyeman., 2002; Mostafa., 2007) stresses on the key role played by these constructs within the sustainable consummation area as this factor provides information that offers people the mental tools

required for the evaluation of environmental effects in sustainable consumption area. Young people in cities the factor of knowledge tends to lead to preferences for eco-friendly buying habits among consumers (Biswas and Roy., 2015), therefore it is required to understand how environmental knowledge matters so much regarding green FMCG products.

Basically, the construct of environmental concern delves into an individual's emotional connection along with various prevailing ecological problems. Hence, it usually results to sustainable buying behaviour and positive attitude of consumers (Dunlap, Van Liere, Mertig, and Jones., 2000). So, when the satisfaction is high then consumer loyalty and trust automatically increase in the economy (Biswas and Roy, 2015; Thakur, Singh & Singh, 2025).

Health concern steps in as a mediator in much of the green consumption discussion these days. Still, even though environmental issues are at the forefront of the sustainability discipline, health concerns are having a greater impact on consumers attitudes and purchasing decisions. (Michaelidou and Hassan., 2008) stated that health-consciousness influences how individuals evaluate environmentally friendly food items and personal care products fmcg items. In places like India, health concerns link up closely with environmental reasons, as Bashir, Shams, and Syed pointed out in 2019. Wang and others in 2019 even showed health concern bridging green knowledge to attitudes about organic and labeled eco products. Still, not many studies have directly checked this mediating role of health concern in the path from environmental knowledge to green attitudes. That holds especially for city of youth. This study aims to fill that gap.

Theoretical Foundations

The theoretical framework adopted in this article is based on various intellectual concepts taken from the literature. As per the existing Theory of Planned Behavior (Ajzen, 1991), it is said that attitudes are formed through cognitive and emotional assessments that correspond to notions involving knowledge, satisfaction, and concern see figure 1. The research by (Mehrabian & Russell, 1974) views environmental knowledge and health concern as internal organismic processes that highly mediate behavioral responses like green attitudes. Additionally, the ecology psychology literature has been identified to be more focused on how personal values, perceived implication, and emotional drives integrate with each other to increase and promote ecological attitudes (Steg & Vlek, 2009).

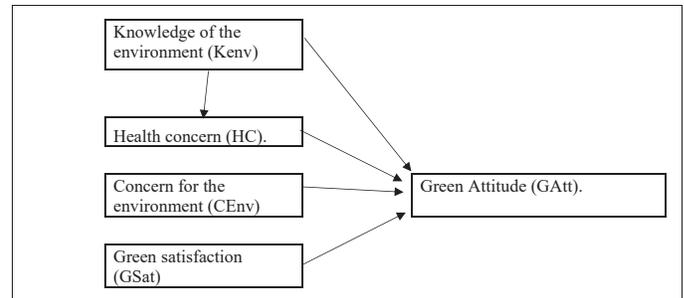


Figure. Research framework adopted in the study by the authors.

Hypotheses

There are a wide variety of deep-rooted concepts help explain how consumers actually shift from knowing about an issue to actually forming attitudes that shape their behavior. One of the most widely used frameworks is the Theory of Planned Behavior (TPB), which explains that what people think and they believe plays a major role in the intentions they form and the choices they eventually make (Ajzen, 1991).

Hence, as per the concept the authors of this present study places environmental knowledge and environmental concern as the outward-facing influences that is going to highly influence more personal, internal responses like concerns about health risks or the sense of satisfaction that comes from choosing greener substitutes. Thus, this necessary analysis then contributes to understanding exactly how young consumers in Delhi develop their overall attitude toward green FMCG products.

The study tests the following hypotheses:

H1: Knowledge of the environment (KEnv) significantly influences green attitude (GAtt).

H2: Knowledge of the environment (KEnv) significantly influences health concern (HC).

H3: Health concern (HC) significantly influences green attitude (GAtt).

H4: Concern for the environment (CEnv) significantly influences green attitude (GAtt).

H5: Green satisfaction (GSat) significantly influences green attitude (GAtt).

Together, these associations depict both the direct factors shaping green attitudes but also the subtle way in which health concerns can translate environmental knowledge into more pro-environmental viewpoints. Earlier literature in behavioral and environmental psychology supports this kind of structure as it has been mentioned that people's internal evaluations often emerge from a mix of cognitive input and emotional responses on a

regular basis functioning. (Ajzen, 1991; Mehrabian & Russell, 1974; Gifford, 2014; Chen, 2010).

It is also important to recognize that the authors have tried to maintain the study's hypotheses as per the specific realities of urban Indian youth because in places like Delhi, young consumers are regularly exposed to information about sustainability, health risks and environmental degradation through their education, social media feeds and everyday market experiences therefore, these influences overlap authors model is designed to capture how knowledge, health awareness and environmental concern interact in this particular setting. Smart PLS -SEM software was utilised in this study as it is considered to be the best analytics tool for the investigation of satisfaction and consumer related studies as it explores direct, indirect and mediation factors efficiently (Ajzen, 1991; Mehrabian & Russell, 1974).

Methods

Population and sampling.

This study focuses on young professionals and college-going students in Delhi, a group that is actively shaping consumer trends in the city. A standardized online questionnaire was circulated through email, a total of 450 forms that were shared and around 420 were complete and valid enough to be used for analysis. This final sample size offered sufficient statistical strength for conducting the PLS-SEM procedures for the in-depth analysis of the data.

Data collection instrument.

A structured questionnaire using a 5-point Likert scale was adopted in this research work. The questionnaire was prepared carefully so that all constructs in the model that are: knowledge of the environment (KEnv), concern for the environment (CEnv), green satisfaction (GSat), the mediating variable of health concern (HC) and the outcome variable, green attitude (GAtt). The construct model was formed as per the well-established and validated scales from the previous literature and as per the context of young urban Indians.

Measurement and constructs.

Each of the constructs included several items designed to reflect the concept reliably and consistently. Where needed, reverse-coded statements were used to avoid patterned responding. All constructs were checked for basic reliability and validity to confirm that the measurement instrument performed as expected.

Data analysis approach.

The analysis was carried out on Partial Least Squares Structural Equation Modeling (PLS-SEM) using

SmartPLS. For the hypothesis testing and mediation analysis the measurement model was evaluated first for the establishment of internal consistency, indicator reliability and validity. After this step the structural model was evaluated, this included examining all direct paths proposed in H1 through H5 and testing the mediating role of HC (Hair, Hult, Ringle, & Sarstedt, 2017).

Results

Table 1. Construct Reliability & Convergent Validity

Construct	Cronbach's α	Composite Reliability (CR)	AVE	Interpretation
KEnv	0.83	0.88	0.65	Good
CEnv	0.84	0.89	0.66	Good
GSat	0.86	0.91	0.72	Strong
HC	0.87	0.90	0.64	Good
GAtt	0.88	0.92	0.73	Strong

All CR > 0.70, AVE > 0.50 → convergent validity established.

In the table 1. the measurement model results suggest that the scales used in the study performed well overall. The reliability indicators fell within acceptable ranges, with Cronbach's alpha scores between 0.83 and 0.88 and composite reliability values from 0.88 to 0.92. The AVE values, which reflect convergent validity, ranged from 0.64 to 0.73 comfortably above the minimum standard typically recommended in PLS-SEM research. Discriminant validity was also supported. All HTMT ratios stayed below the conservative 0.85 benchmark, which indicates that the constructs were sufficiently distinct from one another, aligning with established guidelines (Hair, Hult, Ringle, & Sarstedt, 2017; Henseler, Ringle, & Sarstedt, 2015).

Table 2. Bootstrapped Path Coefficients (H1-H5)

Hypothesis	Path	β	t-value	p-value	Decision
H1	KEnv → GAtt	0.19	2.41	0.016	Supported
H2	KEnv → HC	0.47	6.38	<0.001	Supported
H3	HC → GAtt	0.36	4.72	<0.001	Supported
H4	CEnv → GAtt	0.29	3.51	<0.001	Supported
H5	GSat → GAtt	0.27	3.80	<0.001	Supported

For the structural model assessment table 2 clearly highlights the values and their meaningful decisions as they show the construct hypotheses paths as well for better visual understanding. Knowledge of the environment demonstrated a significant positive effect

on green attitude (H1: $\beta = 0.19$, $t = 2.41$, $p = 0.016$) and well as the table demonstrated the strong influence on health concern (H2: $\beta = 0.47$, $t = 6.38$, $p < 0.001$). Health concern, in turn, positively shaped green attitude (H3: $\beta = 0.36$, $t = 4.72$, $p < 0.001$). The results also indicate that concern for the environment (H4: $\beta = 0.29$, $t = 3.80$, $p < 0.01$) and green satisfaction (H5: $\beta = 0.27$, $t = 3.80$, $p < 0.001$) each make independent contributions to green attitude. Green attitude has R^2 of 0.62 and health concern has generated a R^2 of 0.20. Therefore, these results states that there exists an eloquent variation within the research framework model.

Table 3. Mediation Analysis

Mediation Path	Indirect β	t-value	p-value	Effect Type
KEnv \rightarrow HC \rightarrow GAtt	0.17	3.14	0.002	Partial Mediation

A mediation analysis was conducted to understand whether there exists a mediation effect between knowledge of environment and green attitude through concern for health factor. Table 3 was generated after conducting a through bootstrapping evaluation on pls sem software with 5,000 bootstrap samples. After this step the results demonstrated statistically significant indirect effect of environmental knowledge on green attitude through health concern ($\beta \approx 0.17$, $t = 3.14$ and $p < 0.02$). Therefore, the final result of these values clearly highlighted that there is a partial mediation, which is consistent with the theoretical expectation that health-related considerations perform the role of an additional instrument via which knowledge shapes environmental attitudes. Especially it is understood trough this evaluation that, its indirect pathway carries weight and the direct relationships from knowledge and other constructs is critical for the evaluation of green attitude remain significant (Hair et al., 2017; Henseler, Ringle, & Sarstedt, 2015).

Therefore, after the completion of all the evaluation on pls sem software and the testing of hypotheses and mediation factor, it can be clearly said that the environmental knowledge contributes to green attitude through both a direct path and an indirect path that is mediated by health concern construct. Also, there exist an important influence from environmental concern and green satisfaction.

Discussion

After the evaluation of all the tables and results it can be said that what young people know about the environment strongly shapes how they feel about green FMCG products because since they are able to understand

environmental problems more so they tend to view green products more positively. On the other side health concern also plays highly meaningful role, since a lot of young consumers from Delhi can easily interconnect eco-friendly choices with personal safety and well-being so these factors explain a large share of why young consumers form positive green attitudes. Health concern works as a partial bridge that is helpful for the strengthening of the connection between environmental knowledge and attitude that proves previous literature clearly that individuals respond to both information and health-related indications. Environmental concern and satisfaction with green products matter too because attitudes are influenced by what people know and how they feel and this results in how they experience things in their life. These results offers that information which combines environmental facts with simple, trustworthy health benefits are usually more persuasive for young consumers. But this research is limited to Delhi and uses self-reported data, so the findings cannot be widely generalized. Even with these limits all above results make it clear that environmental knowledge directly and indirectly shapes green attitudes and that health framing can help strengthen sustainable behavior among urban youth in urban cities.

Implications, Limitations and Future Directions.

This current work demonstrates that when health related path is added to the sustainable consumption patterns it can highly help in how environmental knowledge shapes green attitudes among young people. By proving that health concern partly connects the two this research framework model is perfectly aligned with Theory of Planned Behavior, therefore it can be said that environmental claims work better when they are paired with clear health benefits, especially for FMCG brands that appeal to youth who care about wellness, convenience, and sustainability. At the same time, the study has limits since it uses self-reported data from one location, so the findings should be interpreted carefully. Future research could test this model in other regions. Adding factors such as income levels, price sensitivity, product access, or social influence can also explore further distinct areas of research and prove to be more competent for multilevel research frameworks.

Conclusion

In conclusion this research offers strong evidence that states dual pathway that connects environmental knowledge to green attitude. Additionally, its direct health concern driven mediated influence. In conclusion it highlights the existing theory of TPB and how it plays critical role in the studies related to sustainable

consumer behaviours. As well the emphases on the role of cognitive factors shapes the internal evaluations and attitudes (Ajzen, 1991; Mehrabian & Russell, 1974) additionally it complements environmental psychology work that suggests that the perceived health benefits can enhance young consumers concern for the environment (Gifford, 2014).

Industry professionals need to recognize the need for promoting green FMCG products to young urban consumers in India especially the capital city of Delhi as it the main hub, as it perfectly combines environmental information with credible health-related claims that are effective. With various modern developments sustainability driven information and campaigns are starting to become even more conventional. Therefore, various strategies that are based on both environmental knowledge and personal well-being have more chances to remain influential in upcoming future.

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