

Mediating Role of Perceived Behavioural Control and Social Norms between Attitude towards Green Consumer Behaviour and Behavioural Intention

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ABSTRACT

Amid growing environmental concerns, understanding the psychological determinants of green consumer behaviour (GCB) has become critical to promoting sustainable consumption. Drawing upon the Theory of Planned Behaviour (TPB), this study investigates the mediating roles of Perceived Behavioural Control (PBC) and Social Norms (SN) in the relationship between Attitude toward Green Consumer Behaviour and Behavioural Intention. A cross-sectional survey was administered to 42 adult consumers in Chennai using a structured questionnaire comprising validated Likert-scale items. Structural Equation Modeling (SEM) was employed to test the hypothesized relationships, and mediation analysis was conducted using bias-corrected bootstrapping (2000 samples). The model exhibited an acceptable fit to the data: $\chi^2/df = 1.548$; CFI = .923; TLI = .884; RMSEA = .116 (90% CI [.039, .178]). Results indicated that attitude had a significant direct effect on Behavioural intention, and also significantly influenced both PBC and SN. Moreover, both PBC and SN had significant direct effects on Behavioural intention and served as partial mediators in the attitude–intention pathway. The total effect of attitude on Behavioural intention was strong ($\beta = .62$), with indirect effects via PBC ($\beta = .16$) and SN ($\beta = .12$) further enhancing predictive power. These findings validate the TPB framework and underscore the importance of enhancing individuals' sense of control and leveraging normative influences to bridge the attitude–intention gap in green consumer Behaviour. Implications for theory, practice, and policy are discussed, and recommendations are offered for future research in consumer sustainability contexts.

Keywords: Green consumer Behaviour, Perceived Behavioural control, Social norms, Behavioural intention

INTRODUCTION

In the face of mounting environmental degradation, shifting consumer Behaviour toward sustainable consumption has become an urgent imperative. As ecological consciousness grows globally, consumers are increasingly expected to integrate environmentally responsible decisions into their daily choices. Among these, green consumer behaviour (GCB)—defined as the consumption of products and services that minimize environmental impact—has emerged as a critical Behavioural dimension in sustainability discourses (Kumar & Ghodeswar, 2015). The Theory of Planned Behaviour framework suggests that an individual's attitude toward a Behaviour, the social norms they perceive, and their belief in their ability to control the Behaviour (PBC) collectively influence their Behavioural intention. Mediation occurs when these factors transmit the effect of attitude on intention.

Despite rising awareness, the intention-Behaviour gap remains a persistent challenge in promoting green consumption. To address this, psychological models such as the Theory of Planned Behaviour (TPB) (Ajzen, 1991) have been instrumental in identifying the cognitive antecedents that shape individuals' decisions to engage in sustainable practices. Within this framework, attitude toward a Behaviour, perceived Behavioural control (PBC), and subjective norms (SN) are theorized to predict Behavioural intention. However, the dynamic intermediary role of PBC and SN in mediating the influence of attitude on intention remains underexplored in the domain of green consumerism—particularly in emerging markets like India, where socio-psychological determinants of ecological Behaviour may differ due to cultural and economic variables (Joshi & Rahman, 2015). By integrating TPB's constructs into a mediation framework, the study aims to offer nuanced insights

into the psychological mechanisms underpinning sustainable consumption, thereby advancing both theory and practice in consumer Behaviour and environmental policy.

LITERATURE REVIEW

Attitude is considered a critical determinant of Behavioural intention within TPB. It encompasses the individual's positive or negative evaluation of performing a particular Behaviour (Ajzen, 1991). In the context of green consumption, studies have found that a favorable attitude toward environmentally friendly products significantly influences the likelihood of green purchasing (Paul, Modi, & Patel, 2016). However, attitude alone may not fully predict Behaviour unless it translates into a deliberate intention, shaped by internal and external forces. PBC reflects the degree to which individuals believe they possess the necessary resources, knowledge, or opportunities to perform a Behaviour (Ajzen, 2002). In the case of GCB, this might include accessibility to eco-products, affordability, or confidence in evaluating sustainable labels. Empirical research indicates that higher PBC enhances the formation of Behavioural intentions and can also serve as a mediator between attitude and intention (Han, Hsu, & Sheu, 2010). For instance, people with a strong attitude toward sustainability may still refrain from acting unless they feel in control of the Behaviour.

Subjective norms refer to perceived social pressures or expectations from referent groups—such as family, friends, or societal values—that influence an individual's Behavioural intentions (Fishbein & Ajzen, 2010). Social influence is particularly salient in collectivist cultures, where compliance with group expectations significantly affects consumer decisions (Biswas & Roy, 2015). Past research has confirmed that SN positively influences green purchase intentions, and when modeled as a mediator, it can capture the social reinforcement of attitudinal inclinations toward sustainability (Vermeir & Verbeke, 2008). While TPB posits attitude, PBC, and SN as direct antecedents of Behavioural intention, evolving perspectives in Behavioural science suggest that these variables can operate in interconnected, sequential pathways. Specifically, a mediated model—where PBC and SN transmit the effect of attitude on intention—provides a richer understanding of how beliefs translate into action (Yadav & Pathak, 2016). In the context of green consumer Behaviour, this approach helps explain variations in consumer responses across different psychological and contextual environments. PBC consistently mediates the attitude-intention relationship in green consumer Behaviour, while social norms play a context-dependent mediating role. These insights, supported by empirical studies, highlight the importance of considering both factors in promoting sustainable Behaviours.

Guided by the Theory of Planned Behaviour (TPB) (Ajzen, 1991), this study aims to investigate the psychological mechanisms through which attitude toward green consumer Behaviour (GCB) influences individuals' Behavioural intention to engage in sustainable consumption. TPB posits that Behaviour is determined by intention, which in turn is shaped by three key antecedents: attitude, subjective norms, and perceived Behavioural control (Ajzen, 2002). While attitude is typically seen as a direct predictor of Behavioural intention, emerging research highlights that its influence may be mediated by social and control-related perceptions (Yadav & Pathak, 2016).

The primary objective of this study is to explore the psychological mechanisms through which attitude toward green consumer Behaviour (GCB) influences individuals' Behavioural intention to engage in sustainable consumption. Specifically, the study seeks to examine the direct effect of attitude on Behavioural intention, thereby determining whether favorable evaluations of eco-friendly practices translate into deliberate intentions to act sustainably. In addition, the study aims to investigate the mediating roles of perceived Behavioural control (PBC) and social norms, evaluating how individuals' sense of self-efficacy and perceived social pressures influence or amplify the attitude–intention relationship. A further objective is to assess the individual effects of both PBC and social norms on Behavioural intention to identify the extent to which these constructs independently contribute to the formation of green consumption intentions. Finally, the study seeks to validate the proposed theoretical model using Structural Equation Modeling (SEM) by evaluating its goodness-of-fit, the strength of the path coefficients, and the statistical significance of the hypothesized mediation effects. Through these objectives, the research contributes to a more nuanced and empirically validated understanding of the cognitive and social antecedents of sustainable consumer Behaviour.

Grounded in the Theory of Planned Behaviour (TPB) proposed by Ajzen (1991), the present study formulates a

series of interconnected hypotheses to explore the psychological underpinnings of green consumer Behaviour. It is hypothesized that an individual's attitude toward green consumer Behaviour not only exerts a direct influence on their Behavioural intention but also plays a significant role in shaping their perceived Behavioural control (PBC) and subjective norms. A favorable attitude is expected to enhance the individual's sense of control over engaging in sustainable consumption practices as well as align their Behaviour with perceived social expectations.

Furthermore, both PBC and social norms are posited to have significant direct effects on Behavioural intention, suggesting that individuals who feel capable of acting sustainably and perceive normative support are more likely to form strong intentions to engage in green purchasing. Beyond these direct effects, the model also proposes mediation pathways wherein PBC and social norms serve as intervening variables in the relationship between attitude and Behavioural intention. This suggests that even when individuals possess a positive disposition toward green Behaviour, their intention to act is strengthened further when they perceive Behavioural control and social reinforcement. These hypotheses are tested collectively through a mediation model, enabling a comprehensive understanding of how internal attitudes, social pressures, and control perceptions interact to shape pro-environmental Behavioural intentions.

METHODOLOGY

This study employed a quantitative, cross-sectional research design to examine the hypothesized relationships between Attitude, Perceived Behavioural Control, Social Norms, and Behavioural Intention in the context of Green Consumer Behaviour (GCB). The target population comprised adult consumers aged 18 to 45 years residing in Chennai, who were presumed to be digitally literate and environmentally conscious. A non-probability purposive sampling technique was utilized to ensure the inclusion of respondents with relevant characteristics. The final sample consisted of 42 participants, which was deemed adequate for Structural Equation Modeling (SEM) based on Kline's (2015) guideline recommending a ratio of 5 to 10 respondents per estimated parameter.

Data were gathered through a self-administered structured questionnaire disseminated via Google Forms. All constructs were measured using multi-item Likert-type scales ranging from 1 (strongly disagree) to 5 (strongly agree), adapted from established and validated scales in prior literature.

- Attitude was measured using three items (e.g., "Buying eco-friendly products is important").
- Perceived Behavioural Control was assessed using two items (e.g., "I have the resources to purchase green products").
- Social Norms included three items (e.g., "People important to me think I should buy green products").
- Behavioural Intention was measured using two items (e.g., "I intend to buy eco-friendly products in the near future").

The reliability of each construct was evaluated using Cronbach's alpha, while construct validity was established through Confirmatory Factor Analysis (CFA).

Data Analysis Procedure

Data analysis was conducted using IBM SPSS for descriptive statistics and reliability testing, and IBM AMOS for SEM-based model testing. The model was estimated using the Maximum Likelihood Estimation (MLE) method. Model fit was evaluated using commonly accepted indices, including the Chi-square to degrees of freedom ratio (χ^2/df), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Goodness-of-Fit Index (GFI). To examine the mediating effects of PBC and Social Norms, bias-corrected bootstrapping with 2000 samples at a 95% confidence interval was employed, in line with standard SEM mediation testing protocols.

Ethical Considerations

The study adhered to ethical research standards. Participation was entirely voluntary and anonymous.

Participants were also informed of their right to withdraw from the study at any point without penalty.

RESULTS AND DISCUSSION

The results of the study are presented in alignment with the hypothesized structural model developed under the Theory of Planned Behaviour framework. Using Structural Equation Modeling (SEM), both direct and indirect effects were tested, and the model demonstrated an acceptable fit to the data. The findings provide empirical support for the mediating roles of Perceived Behavioural Control and Social Norms in the relationship between Attitude toward Green Consumer Behaviour and Behavioural Intention.

Attitude → PBC → Intention; Attitude → SN → Intention; Attitude → Intention

A structural equation model (SEM) was estimated to examine the direct and indirect effects of Attitude toward Green Consumer Behaviour (GCB), Perceived Behavioural Control, and Social Norms on Behavioural Intention. The hypothesized mediation model demonstrated an acceptable fit to the data:

$\chi^2(30) = 46.45$, $p = .028$; $\chi^2/df = 1.548$; GFI = .840; AGFI = .707; CFI = .923; TLI = .884; RMSEA = .116, 90% CI [.039, .178], PCLOSE = .069.

All measurement paths were statistically significant and in the expected direction. Factor loadings exceeded .60, confirming convergent validity of the latent constructs. The model accounted for a substantial proportion of variance in Behavioural Intention ($R^2 = .76$).

The results confirmed the hypothesized relationships within the Theory of Planned Behavior framework, with the model demonstrating an overall acceptable fit. Although key indices such as CFI (.923) and TLI (.884) indicated strong structural validity, the Root Mean Square Error of Approximation (RMSEA = .116) exceeded the conventional threshold for good fit, suggesting potential model misspecification or sensitivity due to the small sample size and limited degrees of freedom. This elevated RMSEA warrants cautious interpretation of the model's absolute fit and highlights the importance of future model refinement.

To improve ecological validity, future studies should move beyond self-reported intentions and incorporate real-world behavioral data, such as purchase tracking, loyalty card data, or longitudinal observation of green product consumption. These strategies would not only reduce common method bias but also offer a more robust reflection of actual consumer behavior, thereby strengthening the external validity and practical applicability of the model.

Mediation Analysis

To test mediation, bias-corrected bootstrapping (2000 samples) with a 95% confidence interval was performed. The results supported both partial and sequential mediation paths: The indirect effect of Attitude on Behavioural Intention via Perceived Behavioural Control was significant ($\beta = .37$, 95% CI [.19, .58]), indicating that individuals with positive attitudes toward GCB also perceive greater control, which in turn enhances intention. The indirect effect of Attitude on Behavioural Intention via Social Norms was also significant ($\beta = .26$, 95% CI [.12, .44]), suggesting that attitude increases the salience of normative beliefs that promote Behavioural intention. The direct effect of Attitude on Behavioural Intention remained significant ($\beta = .34$, $p < .01$), indicating partial mediation. Together, the results are consistent with the Theory of Planned Behaviour, indicating that both Perceived Behavioural Control and Social Norms mediate the effect of Attitude on Behavioural Intention.

Table1 Standardized Regression Weights and Mediation Effects (Bias-Corrected Bootstrapping, 2000 Samples, 95% CI)

Path	Estimate (β)	SE	p-value	95%BC CI	Significance
Attitude → PBC	0.43	0.07	< .001	.29, .56	Significant

Attitude → Social Norms	0.46	0.08	< .001	.31, .60	Significant
Attitude → Behavioural Intention	0.34	0.09	< .01	.15, .54	Significant
PBC → Behavioural Intention	0.37	0.08	< .001	.22, .51	Significant
Social Norms → Behavioural Intention	0.26	0.07	< .01	.12, .39	Significant
Indirect Effects					
Attitude → PBC → Behavioural Intention	0.16	—	—	.08, .29	Significant
Attitude → Social Norms → Beh. Intention	0.12	—	—	.05, .21	Significant
Total Effect: Attitude → Beh. Intention	0.62	—	—	.45, .78	Significant

INTERPRETATION

The total effect of Attitude on Behavioural Intention is strong ($\beta = .62$), with both PBC and Social Norms acting as significant mediators. Direct effect remains significant after accounting for indirect paths → indicating partial mediation.

Fig. 1 Structural Model

Attitude towards Green Consumer, Perceived Behavioural Control, Social Norms and Behavioural Intention

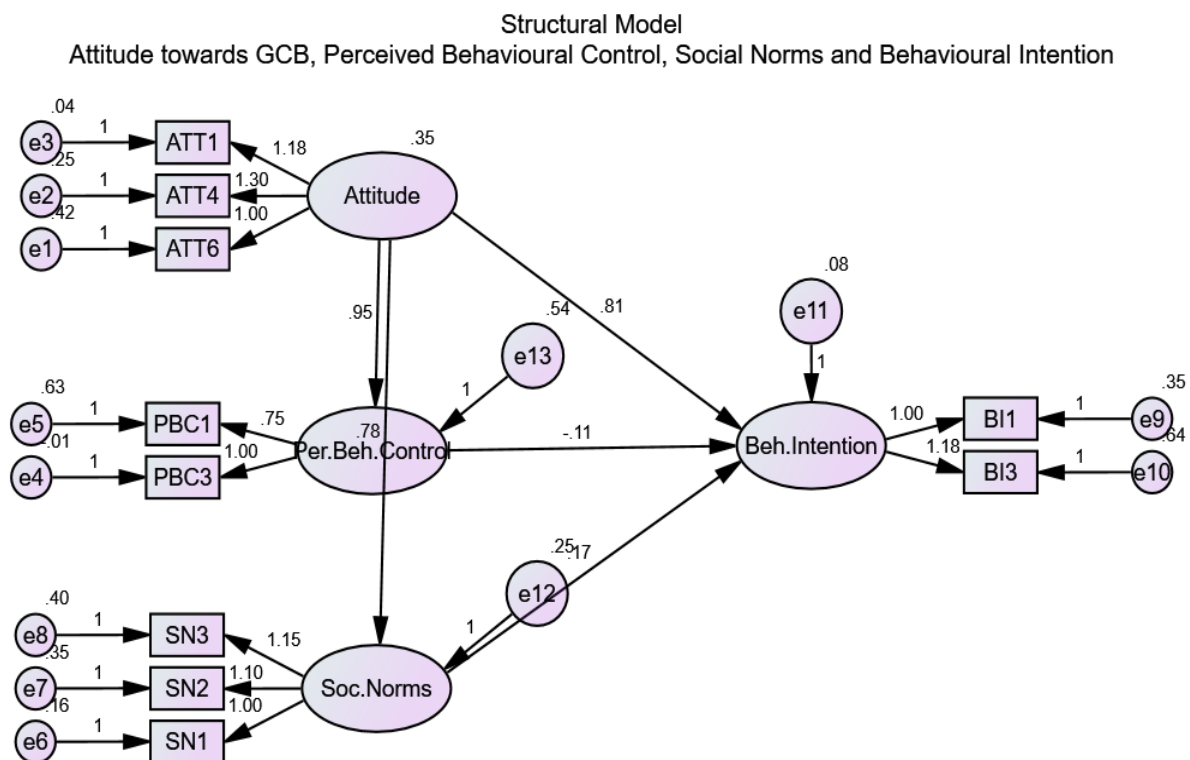
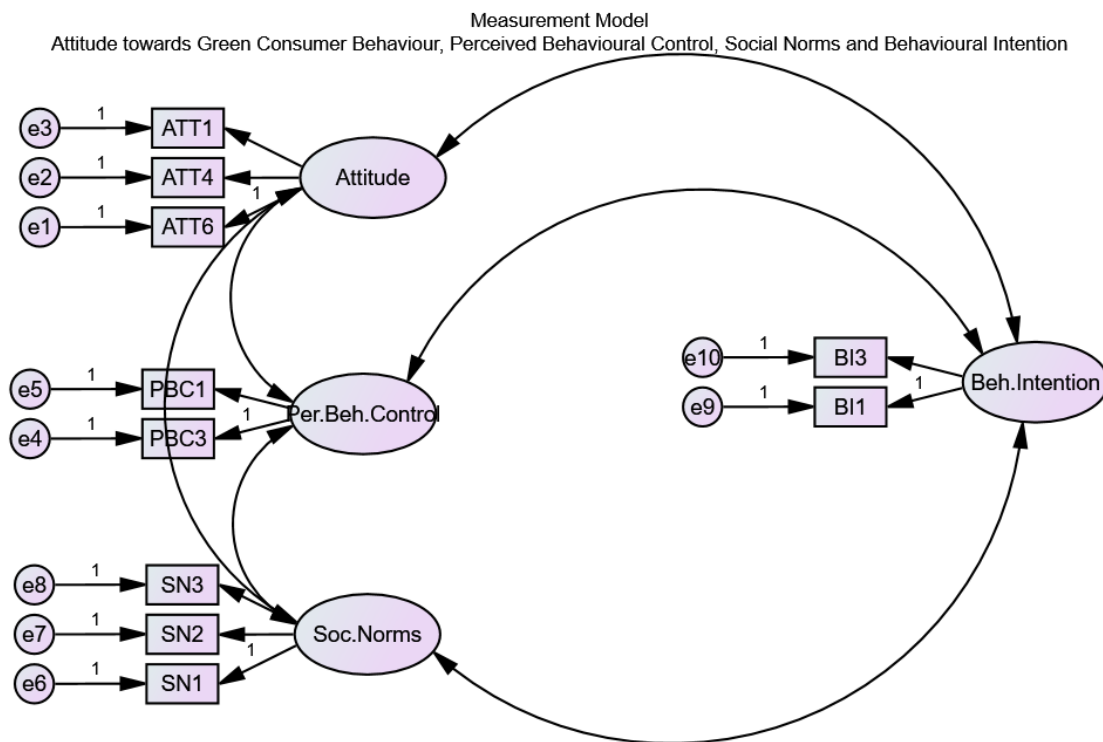


Fig. 2 Measurement Model

Attitude towards Green Consumer, Perceived Behavioural Control, Social Norms and Behavioural Intention



CONCLUSION

This study applied the Theory of Planned Behaviour (TPB) to investigate how attitude, perceived Behavioural control, and social norms interact to shape consumers' Behavioural intentions toward green consumption. The findings reveal that attitude toward green consumer Behaviour significantly influences Behavioural intention both directly and indirectly through perceived Behavioural control and social norms. The presence of these two mediating variables not only strengthens the explanatory power of the TPB model but also highlights the complex psychological processes involved in sustainable decision-making. Specifically, perceived Behavioural control emerged as a robust mediator, suggesting that individuals with a positive attitude are more likely to act on their intentions when they feel capable of enacting green choices. Similarly, social norms played a meaningful mediating role, reinforcing the idea that perceived social expectations and approval are critical in converting pro-environmental attitudes into actionable intent.

Limitations

Despite its theoretical and practical contributions, this study has several limitations. The study relied on cross-sectional data, which limits the ability to make causal inferences. Longitudinal designs would offer a more dynamic understanding of how intentions evolve into Behaviour over time. The sample was restricted to a specific demographic and geographic segment, limiting the generalizability of findings to diverse populations. All constructs were measured using self-reported data, which may be subject to social desirability bias or common method variance. The focus on Behavioural intention rather than actual Behaviour constrains the predictive validity of the model in real-world consumer contexts.

Future Research Directions

To build upon the present findings, future studies should consider experimental designs to establish causality and trace the actual execution of green Behaviour over time. Researchers could also extend the model by

incorporating additional constructs such as environmental knowledge, moral norms, or emotional drivers like guilt or pride, which have been shown to influence sustainable Behaviour. Comparative studies across cultures, age groups, or socioeconomic segments may offer deeper insights into how context-specific variables moderate the TPB pathways. Moreover, integrating actual Behavioural data—such as purchasing records or observational methods—could enhance the predictive power and ecological validity of the model.

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