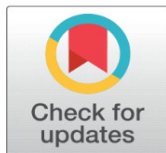
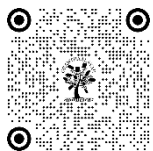


ROLE OF PERCEIVED CONSUMER EFFECTIVENESS (PCE) ON GREEN PURCHASE BEHAVIOUR WITH REFERENCE TO KANNUR DISTRICT

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ABSTRACT

Perceived Consumer Effectiveness (PCE) plays a pivotal role in influencing green purchase behavior, particularly in regions where environmental awareness is gradually increasing. This study investigates the relationship between PCE and green purchase behavior in the context of consumers from Kannur District. The research explores how individuals' belief in their ability to positively impact the environment through eco-friendly purchasing decisions shapes their buying patterns. Using quantitative methods, the study highlights the significant contribution of PCE in motivating sustainable consumption. Key findings indicate that consumers with higher levels of PCE are more likely to purchase green products, driven by environmental concerns, social influence, and perceived product value. The results underscore the importance of enhancing PCE through targeted awareness campaigns and policies to foster environmentally responsible consumer behavior. This research provides valuable insights for marketers, policymakers, and environmental organizations aiming to promote green consumption in the region.

Keywords: Perceived Consumer Effectiveness, Green Purchase Behavior, Sustainable Consumption, Consumer Attitudes, Environmental Awareness

1. INTRODUCTION

The growing concern for environmental sustainability has significantly influenced consumer behavior worldwide. As the impact of human activities on the environment becomes increasingly evident, consumers are now seeking ways to contribute to ecological preservation. Among the various factors driving this change, Perceived Consumer Effectiveness (PCE) has emerged as a critical determinant. PCE refers to an individual's belief in their ability to make a positive environmental impact through their purchasing decisions. It acts as a psychological motivator, influencing the extent to which consumers are willing to adopt environmentally responsible behaviors, such as purchasing green products. Green purchase behavior, characterized by the preference for products that are environmentally friendly, biodegradable, recyclable, or energy-efficient, has gained momentum over the years. However, the effectiveness of such behavior is often contingent upon the consumer's belief in the tangible outcomes of their choices. A higher sense of PCE enhances an individual's willingness to prioritize sustainability over convenience, cost, or familiarity with conventional products.

Therefore, understanding the role of PCE in shaping green purchase behavior is critical for policymakers, marketers, and environmental advocates aiming to promote sustainable consumption patterns.

This study focuses on the role of PCE in influencing green purchase behavior in Kannur District, a region witnessing gradual but significant changes in consumer attitudes towards sustainability. Despite growing awareness of environmental issues, green purchase behavior in Kannur District remains limited, possibly due to varying levels of PCE among consumers. By examining this relationship, the study aims to shed light on how strengthening PCE can serve as a catalyst for encouraging eco-friendly consumption.

The findings of this study will not only provide insights into the psychological drivers of green purchase behavior but also inform the development of targeted interventions, such as awareness campaigns and policy measures, to enhance PCE among consumers. Ultimately, this research seeks to contribute to the broader goal of fostering sustainable consumption and promoting environmental stewardship in the region.

2. REVIEW OF THE LITERATURE

According to Ellen, Wiener, and Cobb-Walgren (1991), Perceived Consumer Effectiveness (PCE) is a psychological construct that significantly influences environmentally responsible behavior. Their study highlights that individuals with higher levels of PCE are more likely to adopt green practices as they believe their actions can directly contribute to environmental preservation. This foundational research underscores the pivotal role of PCE in shaping sustainable consumer choices.

Roberts (1996) examined the mediating effect of PCE between environmental knowledge and green purchase behavior. The findings indicate that while environmental awareness is crucial, it is the belief in one's contribution that drives actual purchasing decisions. This study suggests that enhancing PCE through awareness programs can effectively bridge the gap between knowledge and action.

Lee and Holden (1999) explored the socio-psychological determinants of green purchasing behavior, emphasizing the role of PCE alongside other factors like social norms and perceived benefits. Their research revealed that consumers with strong PCE tend to prioritize green products even when faced with higher costs, indicating that PCE can override economic barriers in purchasing decisions.

Straughan and Roberts (1999) investigated how PCE influences consumer responses to green marketing strategies. Their study found that consumers with high PCE are more responsive to eco-labels, certifications, and green branding. This highlights the importance of aligning marketing efforts with consumer perceptions of effectiveness to enhance the success of green products in the market.

Chan (2001) conducted a comparative study of PCE and green behavior across different cultural contexts. The study found that cultural values significantly moderate the relationship between PCE and green purchasing, with collectivist societies showing stronger correlations due to a shared sense of environmental responsibility. This research highlights the need to consider cultural nuances when promoting green behavior.

Peattie and Crane (2005) explored the barriers to green purchasing, noting that low PCE is a major impediment. Consumers who perceive their individual actions as insignificant are less likely to adopt sustainable practices. The study recommends targeted interventions to improve PCE, such as providing evidence of collective impact through community-driven initiatives.

3. STATEMENT OF THE PROBLEM

Despite growing awareness of environmental issues and the availability of green products, the adoption of eco-friendly purchasing behavior remains limited. A key factor influencing this behavior is Perceived Consumer Effectiveness (PCE), which reflects an individual's belief in their ability to make a positive environmental impact through their choices. In many regions, including Kannur District, low levels of PCE may hinder consumers from actively engaging in green purchases. This highlights the need to investigate how PCE shapes consumer behavior and identify strategies to enhance it, thereby promoting sustainable consumption and addressing environmental challenges effectively.

4. SCOPE OF THE STUDY

This study examines the role of Perceived Consumer Effectiveness (PCE) in influencing green purchase behavior among consumers in Kannur District. It explores how an individual's belief in their ability to contribute to environmental preservation through their purchasing decisions impacts their preference for eco-friendly products. The research focuses on identifying the factors that enhance or diminish PCE and its relationship with sustainable consumption

patterns. The findings aim to provide insights for marketers, policymakers, and environmental advocates to design targeted interventions, such as awareness campaigns and green marketing strategies, to encourage environmentally responsible behavior in the region.

5. OBJECTIVES OF THE STUDY

- To analyze the impact of Perceived Consumer Effectiveness (PCE) on green purchase behavior among consumers in Kannur District.
- To identify the key factors that influence PCE and its role in shaping environmentally conscious purchasing decisions.
- To assess the relationship between PCE and consumer preferences for eco-friendly products
- To provide recommendations for enhancing PCE through targeted awareness campaigns and marketing strategies to promote sustainable consumption

6. RESEARCH METHODOLOGY

Type of Research:

The study is descriptive in nature, aiming to explore the role of Perceived Consumer Effectiveness (PCE) on green purchase behavior and analyze the factors influencing eco-friendly consumption.

Source of Data Collection:

1. **Primary Data:** Data will be collected using a structured questionnaire designed to measure PCE and green purchase behavior among consumers.
2. **Secondary Data:** Relevant information will be sourced from journals, research articles, and credible websites to support and validate the study findings.

Sampling Method:

Simple random sampling will be employed to ensure each respondent in the target population has an equal chance of being selected, reducing sampling bias.

Sample Size:

The study will include a sample of 150 respondents from Kannur District, representing various demographic and socio-economic groups.

Tools Used for Analysis:

1. **Percentage Analysis:** To summarize and present the collected data in a clear and concise manner.
2. **Descriptive Statistics:** To analyze mean, median, and standard deviation to understand data trends and patterns.
3. **One-Way ANOVA:** To determine the significance of differences between groups with varying levels of PCE and their green purchase behavior.

7. LIMITATIONS OF THE STUDY

- The study is limited to the consumers of Kannur District, and the findings may not be generalized to other regions with different socio-economic and cultural contexts.
- The reliance on self-reported data through questionnaires may lead to potential response bias, affecting the accuracy of the results.
- The sample size of 150 respondents, while sufficient for descriptive analysis, may not capture the full diversity of consumer behavior in the region.
- The study focuses primarily on quantitative tools, which may overlook qualitative insights into deeper psychological and emotional drivers of green purchase behavior.

8. DATA ANALYSIS AND INTERPRETATION

1. Demographic Variables	2. Particulars	3. Frequency	4. Percent
5. Gender	6. Male	7. 70	8. 46.7
	9. Female	10. 80	11. 53.3
12. Age	13. Below 20 years	14. 80	15. 53.3
	16. 21-30 years	17. 43	18. 28.7
	19. 31-40 years	20. 16	21. 10.7
	22. 41-50 years	23. 11	24. 7.3
25. Education Level	26. High school or below	27. 53	28. 35.3
	29. Bachelor's degree	30. 52	31. 34.7
	32. Master's degree	33. 22	34. 14.7
	35. Other	36. 23	37. 15.3
38. Occupation	39. Student	40. 77	41. 51.3
	42. Employee (Private/Government)	43. 38	44. 25.3
	45. Businessperson	46. 6	47. 4.0
	48. Homemaker	49. 12	50. 8.0
	51. Other	52. 17	53. 11.3
54. Monthly Income	55. Below Rs.10,000	56. 88	57. 58.7
	58. Rs. 10,000-Rs. 30,000	59. 25	60. 16.7
	61. Rs. 30,001-Rs. 50,000	62. 33	63. 22.0
	64. Above Rs. 50,000	65. 4	66. 2.7
67. Marital Status	68. Single	69. 19	70. 12.7
	71. Married	72. 131	73. 87.3
74. Total		75. 150	76. 100.0

Percentage analysis

Gender The sample comprises 150 respondents, with a slightly higher proportion of females (53.3%) compared to males (46.7%). This balanced representation ensures insights from both genders in the study.

Age Distribution: The majority of respondents (53.3%) are below 20 years, followed by 28.7% aged 21-30 years. Only 18% of respondents are above 30 years, indicating that the sample is skewed towards younger individuals, likely reflecting a younger consumer demographic interested in green purchasing behavior.

Education Level: A significant portion of the respondents (35.3%) have completed high school or below, while 34.7% hold a bachelor's degree. Respondents with master's degrees (14.7%) and other qualifications (15.3%) form a smaller segment, suggesting that most participants are at an early stage of their academic or professional journey.

Occupation: The largest group within the sample consists of students (51.3%), followed by employees in private or government sectors (25.3%). Homemakers account for 8%, and businesspeople represent only 4%. The "Other" category comprises 11.3%, indicating a variety of other professions. This distribution reflects a dominant student population and a mix of other occupations.

Monthly Income: The majority of respondents (58.7%) report a monthly income below Rs. 10,000, followed by 22% earning Rs. 30,001-Rs. 50,000. Only 2.7% earn above Rs. 50,000. This suggests that the sample primarily includes low to middle-income groups, which could influence affordability and preferences for green products.

Marital Status: Most respondents (87.3%) are married, while only 12.7% are single.

1.	2.	3. N	4. Mean	5. SD
6. Environmental Awareness	7. I am aware of the environmental issues caused by non-sustainable consumer behavior	8. 150	9. 2.72	10. 1.205
	11. I believe that purchasing green products can help reduce environmental damage	12. 150	13. 2.69	14. 1.452
	15. I actively seek information about eco-friendly products.	16. 150	17. 2.83	18. 1.477
19. Perceived Consumer Effectiveness	20. I believe my individual actions can positively impact the environment	21. 150	22. 2.39	23. 1.236

	24. Buying eco-friendly products is an effective way to contribute to sustainability	25. 150	26. 2.26	27. 1.615
	28. I feel a sense of responsibility to choose environmentally friendly products	29. 150	30. 2.31	31. 1.589
32. Green Purchase Intentions	33. I prefer to buy products with eco-labels or certifications	34. 150	35. 3.47	36. 1.208
	37. I am willing to pay more for environmentally sustainable products	38. 150	39. 2.06	40. .985
	41. I choose green products even if they are less convenient to use	42. 150	43. 2.12	44. 1.198

Descriptive Statistics for various dimensions

The descriptive statistics reveal varying levels of agreement across the dimensions of environmental awareness, perceived consumer effectiveness, and green purchase intentions. For environmental awareness, respondents generally acknowledge environmental issues (Mean = 2.72) and actively seek eco-friendly information (Mean = 2.83), although the belief in green products reducing environmental damage is slightly lower (Mean = 2.69). In terms of perceived consumer effectiveness, the belief in individual impact (Mean = 2.39) and responsibility (Mean = 2.31) is moderate but relatively low, indicating a lack of strong confidence in personal contributions to sustainability. Among green purchase intentions, there is a higher preference for products with eco-labels (Mean = 3.47), but willingness to pay more (Mean = 2.06) and choosing less convenient green products (Mean = 2.12) are notably lower, suggesting cost and convenience remain significant barriers.

Descriptive Statistics for various dimensions

45.	46.	47.	48.	49.
50. Social Influence	51. My friends and family encourage me to purchase green products	52. 3.19	53. 1.95	54. 2.35
	55. I am influenced by advertisements promoting environmentally friendly products	56. 1.95	57. 2.35	58. 2.35
	59. I feel motivated to buy green products when I see others doing the same	60. 2.35	61. 2.35	62. 2.35
63. Barriers to Green Purchase	64. Green products are often too expensive for me	65. 2.47	66. 2.88	67. 2.88
	68. I find it difficult to access eco-friendly products in my area	69. 2.87	70. 2.88	71. 2.88
	72. I am skeptical about the claims made by green product brands	73. 2.88	74. 2.88	75. 2.88

The analysis of social influence indicates that respondents receive moderate encouragement from friends and family to purchase green products (Mean = 3.19), showing that close social circles play a role in influencing green purchasing behavior. However, the influence of advertisements (Mean = 1.95) and motivation from observing others (Mean = 2.35) are relatively low, suggesting that external societal factors and marketing campaigns are less effective in driving green purchases. Regarding barriers to green purchase, respondents highlight challenges such as difficulty accessing eco-friendly products (Mean = 2.87) and skepticism about green product claims (Mean = 2.88), which are the most significant barriers. The perception that green products are too expensive (Mean = 2.47) also adds to these challenges.

Comparison between demographic variables (occupation) various dimension

There is no significant difference between demographic variables (occupation) various dimension

76.	77. Occupation	78. N	79. Mean	80. SD	81. F	82. Sig
83. Environmental Awareness	84. Student	85. 77	86. 2.65	87. 0.749	88. 12.422	89. .000
	90. Employee (Private/Government)	91. 38	92. 2.60	93. 0.776		
	94. Businessperson	95. 6	96. 2.11	97. 1.187		

	98. Homemaker	99. 12	100.2.44	101.0.84 4		
	102. Other	103. 17	104.3.94	105.0.61 4		
	106. Total	107. 15 0	108.2.75	109.0.87 9		
110. Perceived Consumer Effectiveness	111. Student	112. 77	113.1.76	114.0.91 2	115.22.21 6	116..00 0
	117. Employee (Private/Government)	118. 38	119.2.25	120.1.28 7		
	121. Businessperson	122. 6	123.4.17	124.0.69 2		
	125. Homemaker	126. 12	127.3.55	128.0.35 9		
	129. Other	130. 17	131.3.49	132.0.88 3		
	133. Total	134. 15 0	135.2.32	136.1.23 4		
137. Green Purchase Intentions	138. Student	139. 77	140.2.56	141.0.98 7	142..554	143..69 7
	144. Employee (Private/Government)	145. 38	146.2.44	147.0.76 0		
	148. Businessperson	149. 6	150.2.67	151.0.63 4		
	152. Homemaker	153. 12	154.2.47	155.0.41 3		
	156. Other	157. 17	158.2.78	159.0.44 1		
	160. Total	161. 15 0	162.2.55	163.0.83 5		
164. Social Influence	165. Student	166. 77	167.2.68	168.0.69 4	169.6.744	170..00 0
	171. Employee (Private/Government)	172. 38	173.2.42	174.0.68 8		
	175. Businessperson	176. 6	177.1.56	178.0.54 4		
	179. Homemaker	180. 12	181.2.81	182.1.06 9		
	183. Other	184. 17	185.1.94	186.0.78 4		
	187. Total	188. 15 0	189.2.50	190.0.78 8		
191. Barriers to Green Purchase	192. Student	193. 77	194.2.54	195.0.81 3	196.6.092	197..00 0
	198. Employee (Private/Government)	199. 38	200.2.60	201.0.82 3		
	202. Businessperson	203. 6	204.2.94	205.0.57 5		
	206. Homemaker	207. 12	208.3.42	209.1.11 2		
	210. Other	211. 17	212.3.37	213.0.63 3		
	214. Total	215. 15 0	216.2.74	217.0.87 2		

The analysis of green purchasing dimensions across occupations highlights significant variations. Environmental awareness shows a statistically significant difference ($F=12.422, p<0.001$), with the "Other" category scoring the highest (Mean = 3.94), indicating a stronger awareness compared to other groups.

Similarly, perceived consumer effectiveness also demonstrates significant variation ($F=22.216, p<0.001$), with businesspersons (Mean = 4.17) and homemakers (Mean = 3.55) reporting the highest levels, while students report the lowest (Mean = 1.76). However, green purchase intentions show no significant differences ($F=0.554, p=0.697$), suggesting similar intentions across occupations. For social influence, a significant difference ($F=6.744, p<0.001$) is observed, with homemakers (Mean = 2.81) experiencing the highest influence, while businesspersons report the lowest (Mean = 1.56). Lastly, barriers to green purchase also exhibit significant differences ($F=6.092, p<0.001$), with homemakers (Mean = 3.42) and the "Other" category (Mean = 3.37) facing the most barriers, whereas students report fewer barriers (Mean = 2.54).

Comparison between demographic variables (Monthly Income) various dimension There is no significant difference between demographic variables (Monthly Income) various dimension

218.	219. Monthly Income	220. N	221.	222. SD	223.	224.
225. Environmental Awareness	226. Below Rs.10,000	227. 88	228.	229. 0.881	3.039	.031
	230. Rs. 10,000–Rs. 30,000	231. 25	232.	233. 0.874		
	234. Rs. 30,001–Rs. 50,000	235. 33	236.	237. 0.781		
	238. Above Rs. 50,000	239. 4	240.	241. 1.001		
	242. Total	243. 150	244.	245. 0.879		
246. Perceived Consumer Effectiveness	247. Below Rs.10,000	248. 88	249.	250. 1.194	3.268	.023
	251. Rs. 10,000–Rs. 30,000	252. 25	253.	254. 1.147		
	255. Rs. 30,001–Rs. 50,000	256. 33	257.	258. 1.237		
	259. Above Rs. 50,000	260. 4	261.	262. 1.642		
	263. Total	264. 150	265.	266. 1.234		
267. Green Purchase Intentions	268. Below Rs.10,000	269. 88	270.	271. 0.895	.790	.501
	272. Rs. 10,000–Rs. 30,000	273. 25	274.	275. 0.836		

Role of Perceived Consumer Effectiveness (PCE) On Green Purchase Behaviour with Reference to Kannur District

	276. Rs. 30,001-Rs. 50,000	277.3 3	278.	279.0.683		
	280. Above Rs. 50,000	281.4	282.	283.0.571		
	284. Total	285.1 5 0	286.	287.0.835		
288. Social Influence	289. Below Rs.10,000	290.8 8	291.	292.0.758	.956	.415
	293. Rs. 10,000-Rs. 30,000	294.2 5	295.	296.0.883		
	297. Rs. 30,001-Rs. 50,000	298.3 3	299.	300.0.819		
	301. Above Rs. 50,000	302.4	303.	304.0.420		
	305. Total	306.1 5 0	307.	308.0.788		
309. Barriers to Green Purchase	310. Below Rs.10,000	311.8 8	312.	313.0.823	.087	.967
	314. Rs. 10,000-Rs. 30,000	315.2 5	316.	317.0.940		
	318. Rs. 30,001-Rs. 50,000	319.3 3	320.	321.1.003		
	322. Above Rs. 50,000	323.4	324.	325.0.500		
	326. Total	327.1 5 0	328.	329.0.872		

The analysis of green purchasing dimensions across monthly income groups reveals significant differences in environmental awareness ($F=3.039, p=0.031$) and perceived consumer effectiveness (PCE) ($F=3.268, p=0.023$), indicating that income levels influence these factors. Respondents earning below Rs.10, 000 report higher environmental awareness (Mean = 2.91) compared to those earning above Rs.50, 000 (Mean = 2.17). Similarly, PCE increases with income, with the highest scores among respondents earning above Rs.50, 000 (Mean = 3.42), reflecting greater confidence in their ability to impact the environment.

However, there are no significant differences in green purchase intentions ($F=0.790, p=0.501$), social influence ($F=0.956, p=0.415$), and barriers to green purchase ($F=0.087, p=0.967$) across income groups, suggesting that these dimensions are relatively consistent regardless of income.

9. FINDINGS

- The demographic profile of the respondents reveals that the majority are female (53.3%) and below 20 years of age (53.3%), indicating a predominantly young and female sample. In terms of education level, most respondents have completed high school or below (35.3%), closely followed by those with a bachelor's degree (34.7%). The majority occupation is students (51.3%), reflecting the younger demographic. Regarding monthly income, most respondents earn below Rs. 10,000 (58.7%), suggesting a sample from low-income groups. Lastly, the majority of respondents are married (87.3%), indicating a high representation of individuals with household responsibilities
- These findings highlight the need to enhance perceived consumer effectiveness and address affordability to promote green purchase behavior effectively
- Overall, the findings suggest the need for more accessible, affordable, and trustworthy green products, alongside stronger marketing and social campaigns to enhance green purchasing behavior.
- These findings suggest that occupation plays a significant role in shaping environmental awareness, PCE, social influence, and perceived barriers, though intentions to purchase green products remain consistent.
- These results indicate that while higher income enhances PCE, green purchasing intentions and social influences remain unaffected by income, and barriers to green purchasing are perceived similarly across all income levels.

10. SUGGESTIONS

Enhancing Perceived Consumer Effectiveness (PCE):

Awareness campaigns should focus on educating consumers about how their individual actions contribute to environmental sustainability. Highlighting success stories and tangible impacts of green purchases can motivate consumers to adopt eco-friendly behaviors.

Improving Accessibility and Affordability:

Green products should be made more affordable through subsidies, discounts, or government incentives. Retailers and policymakers should work to improve the availability of eco-friendly products, especially in low-income and remote areas.

Targeted Marketing Strategies:

Marketing campaigns should be tailored to the demographics of younger consumers and students, emphasizing the value and convenience of green products. Social media and digital platforms can be utilized to influence this tech-savvy segment effectively.

Building Trust in Green Products:

Transparent labeling, certifications, and third-party endorsements can help address skepticism about the authenticity of green products. Regular audits and publicized results can further build consumer confidence.

Occupation-Specific Approaches:

For students, educational programs and workshops in schools and universities can cultivate environmental awareness early. For homemakers and working professionals, targeted initiatives like community-based campaigns and workplace green challenges can increase engagement.

Income-Specific Initiatives:

For low-income groups, introducing affordable green product alternatives and payment plans can encourage green purchases. High-income groups can be incentivized to adopt premium green products by linking them to social prestige or tax benefits.

Social Influence and Role Models:

Encouraging influencers, local leaders, and community members to advocate for green products can amplify social influence. Peer-to-peer campaigns and community initiatives can also help normalize green purchasing behavior.

Reducing Barriers to Green Purchases:

Policies should address the cost and accessibility barriers identified in the study. Partnering with local businesses to increase the reach and visibility of green products can make eco-friendly choices more convenient for consumers.

11. CONCLUSION

The study highlights critical insights into the demographic and behavioral factors influencing green purchase behavior. A predominantly young, female, and low-income respondent base emphasizes the need for targeted interventions to promote environmentally sustainable consumption. While the findings show consistent green purchase intentions across different occupations and income levels, they also reveal significant variations in environmental awareness, perceived consumer effectiveness (PCE), and social influences. Occupation and income play a notable role in shaping these dimensions, with higher-income groups exhibiting stronger PCE, but affordability and trust in green products remain major barriers across all demographics.

To foster green purchasing behavior, it is essential to enhance PCE through awareness campaigns that demonstrate the tangible impact of individual actions. Additionally, improving the affordability and accessibility of green products, coupled with transparent marketing strategies, can build consumer trust and encourage adoption. These efforts, combined with occupation- and income-specific initiatives, can contribute significantly to promoting sustainable consumption patterns and addressing environmental challenges effectively. The study underscores the importance of collaborative efforts among policymakers, marketers, and communities to create a greener, more sustainable future.

CONFLICT OF INTEREST

None

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None

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