

Green Advertising Efficacy: Contrasting Low and High Involvement Product Advertisements

Ranu Raj¹, Dr. Jitendra Sharma²

¹ Research Scholar, ² Professor

Department of Visual Arts, Faculty of Design & Arts

Poornima University, Jaipur, Rajasthan, India

Abstract: The purpose of this study is to evaluate the efficacy of green advertising tactics for both high- and low-involvement items. A somewhat widespread advertising strategy as a result of shifting customer behavior influenced by environmental factors is green advertising. Nevertheless, the effectiveness of these strategies may differ greatly depending upon consumer involvement levels within a product category. This study seeks to examine how green advertising messages affect consumer attitudes, purchase intentions, and perceived brand credibility across both low and high involvement products.

Data was collected through surveys and questionnaires from diverse consumers using a mixed-methods approach. While the direct effects of green advertising on customer attitudes and purchase intentions were examined by quantitative analysis, qualitative insights provided deeper understanding of consumer perceptions and motivations. The results showed that green advertising is more effective for higher involvement products since this group will seek detailed information about product issues including environmental benefits. Conversely, in purchasing low involvement products, buying is mainly driven by convenience or habit rather than environmental considerations hence; there is limited effect of green marketing on such items.

Keywords: Green Advertising, Consumer Involvement, Marketing Efficacy, Sustainable Efficacy, Brand Credibility.

1. Introduction:

In recent times, the increased environmental awareness of consumers has greatly impacted marketing strategies, thereby widening the scope for green advertising. "Green advertising is marketing activities that promote an environmentally related product benefit or corporate brand selling point to attract the now much broader marketplace of ecologically concerned consumers". With sustainability being the highest concern, businesses have pitched themselves towards green advertising to align their brands with eco-friendly ideals in the competitive markets. Green advertising, though, can be successful since the involvement of the consumer with the product being sold influences its success rate.

The degree of involvement a consumer has is still one of the best determinants of how they consume information to arrive at decisions on what to buy. Generally speaking, products can be divided into low and high involvement categories in respect to the amount of thinking and attention that a customer devotes to the process of buying. Low-involvement products, such as common household products, are typically bought on impulse or out of convenience, whereas high-involvement products, like cars and technologies, take long research and deliberation. This categorization begets some fundamental questions regarding consumer reaction to green advertising for these different product categories.

In both low- and high-involvement product categories, this study looks at how green marketing techniques affect consumer attitudes, purchase intentions, and brand credibility. By doing so, it provides insights for businesses to recognize how different product types respond to green advertising, enabling them to tailor their marketing efforts more effectively to target specific markets.

2. Literature Review:

The sustainable marketing strategy, known as green marketing, is highly popular since last few years, in this strategy companies promote their products with eco-friendly features. Studies showed that there are various consumers who think differently about this green practice. (Lau and Chan, 2000) research conducted in the markets of China showed that consumers who are concerned about the environment are likely buy the green products. The awareness about the environment issues between the consumers can possibly increase the buying of green goods, specifically when they feel

that their decision can make a positive change for the planet and helps to develop sustainably. In contrast with this, popularity of these sustainable practices increased the concept of 'gray shade of green', which is about the skepticism as well as non-transparency of the companies that the companies who claims that they are eco-friendly are actually eco-friendly or not. This concept creates trust issues and skepticism in consumers. Sometimes companies pretend to be sustainable than they really are. This practice creates disbelief in consumers. This indicates that companies should be authentic about their eco claims to maintain consumers trust (Leonidou and Skarmas, 2017). Government regulation and smart business choices are quite crucial to motivate consumers for buying green goods. Studies showed that better government regulations and use of appropriate as well as transparent labels will used by the companies can lead consumers towards positive buying of green products. However, these efforts must be based on real improvement to avoid skepticism (Prakash, 2002; Atkinson and Rosenthal, 2014; Zinkhan and Carlson's, 1995). Some studies also discussed about the role of emotional appeals in green advertisements, showing green in the advertisement manipulate consumers perception and make people to buy green products. This emotional connection works in conjunction with the logical reasons for wanting to purchase eco-friendly goods, which emphasizes how much customers care about nature (Hartmann and Apaolaza-Ibáñez, 2009; Sharma and Sharma, 2019). This indicates towards spreading more awareness to the consumers so that they can buy green goods to support environment. The skepticism for green advertising can lower the buying possibilities. However, it can be an opportunity to the companies to show transparency and make improvements in their eco practices. Companies convert skeptic consumers to green consumers if they addressed doubts effectively, which generate faith. (Goh and Balaji, 2016), Collectively all the studies represent the versatile nature of consumer behavior, where knowledge, emotional attachment, trust and skepticism works mutually to give shape to the purchase decisions. For the success of green advertising, companies should be more transparent as well as convey emotional messages to cope-up with this complex scenario.

2.1 Objectives and Hypothesis:

Objectives

1. To evaluate strategies for green marketing as to their efficacy with respect to high involvement products.
2. Assessment of the effectiveness of the strategies used in green advertising for low involving products.
3. Comparison of consumer attitudes towards green advertising between different levels of involvement
4. Being aware of how consumers' exposure to and intentions to acquire high- and low-engagement items are impacted by green advertising.
5. Establish whether green advertising is perceived as credible when a brand is using it.

Hypotheses:

H0 1: Green advertising does not offer a positive persuasion influence toward high involvement products than that of low involvement goods.

H0 2: There is no real difference in the propensity of customers making purchases of high involvement products with green advertisements and low involvement products marketed by green advertisements.

H0 3: High-involvement goods are not viewed as more trustworthy by consumers for brands using green ads than low-involvement ones.

H0 4: There is no effect on consumer demographics (age, gender, education level) for green advertising on consumer's attitudes and purchase intentions.

H0 5: The frequency of product research and consideration of environmental factors do not function as positive moderators between green advertising and purchase intentions for high involvement items.

Variables of the Study:

Independent Variables:

- Product involvement level
- Green advertisement existence

Dependent Variables:

- Consumer’s attitude toward the particular product.
- Consumer purchase intentions.
- Perceived brand credibility.

Control Variables:

- Demographic features
- Number of Product contacts
- The environment in decision to purchase

3. Research Methodology:

3.1 Research Design

In order to ascertain the effectiveness of green advertising for both high and low engagement goods, a mixed-method approach to research design has been used for the project. This approach will incorporate both quantitative and qualitative research methodologies.

3.2 Sample and Population

Target Audience: This involves the population of customers who are expected to have encountered green advertising in the process of making purchases.

Sampling: The sample for the study will be 101 respondents for each category of product, divided into low engagement and high engagement. Besides that, twenty respondents are chosen as a sample to carry out in-depth qualitative interviews.

Sampling Methodology: To effect complete customer representation that can be said to be balanced in terms of their buying patterns for both low and high-involvement products, stratified random sampling will be used.

3.3 Data Collection

Quantitative Data Collection: Surveys and Questionnaires; Quantitative data is obtained through the use of an online structured questionnaire. The questionnaire contains questions relating to attitudes of individuals towards green advertisements, their purchase intentions, and perceived brand credibility, using Likert-scale questions. The subjects respond to questions related to both low-involvement and high-involvement products.

Qualitative Data Collection: Close-ended questions will check the impact of the green message on decisions to buy and general attitude.

4. Analysis and Discussion:

Hypothesis 1: Green advertising does not offer a positive persuasion influence toward high involvement products than that of low involvement goods.

Variables (Independent-Dependent)	Chi-Square Value	df	Asymp. Sig. (p-value)	Interpretation	Hypothesis Decision
Gender × Likelihood to Purchase High Involvement Product (VAR00012)	103.388	8	0.000	Significant relationship	Reject Null
Gender × Likelihood to Purchase Low Involvement Product (VAR00013)	116.249	10	0.000	Significant relationship	Reject Null
Gender × Brand Trust for Low Involvement Product (VAR00017)	106.509	10	0.000	Significant relationship	Reject Null

Product Involvement × Likelihood to Purchase High Involvement Product (VAR00012)	107.421	12	0.000	Significant relationship	Reject Null
Product Involvement × Likelihood to Purchase Low Involvement Product (VAR00013)	105.027	15	0.000	Significant relationship	Reject Null
Product Involvement × Brand Trust for Low Involvement Product (VAR00017)	107.421	12	0.000	Significant relationship	Reject Null

Interpretation:

Both show a value of p is less than .05, which indicates that the gender and product involvement have statistically significant relationship with the dependent variables such as likelihood to purchase or brand trust. As a result, in every test null hypothesis is rejected, indicating that gender and product involvement significantly affect the consumer behavior towards green advertising.

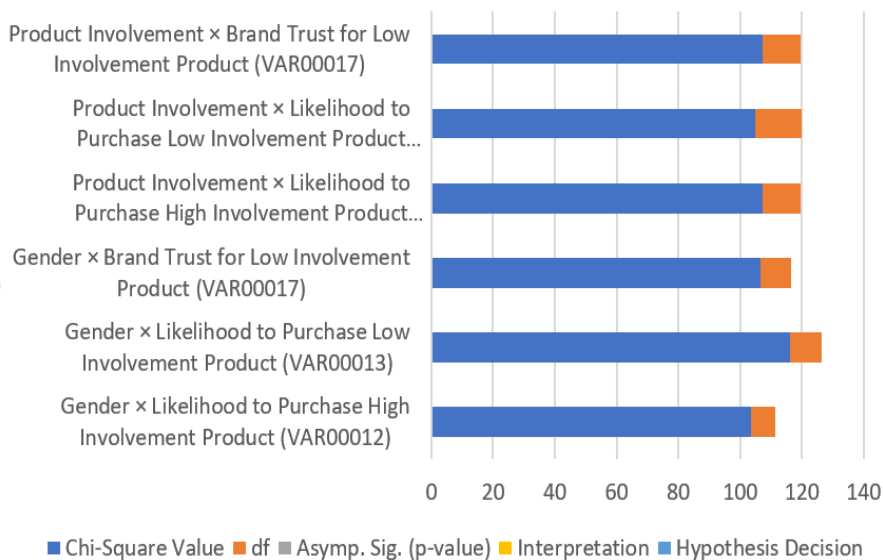


Figure 1: Chi-Square Values and Degrees of Freedom for Relationships Between Gender, Product Involvement, and Purchase Likelihood/Brand Trust.

Hypothesis 2: There is no real difference in the propensity of customers making purchases of high involvement products with green advertisements and low involvement products marketed by green advertisements.

	Pearson Chi-Square	df	Sig. (2-sided)
Test 1: VAR00007 vs. VAR00012	107.421	12	0.000
Test 2: VAR00007 vs. VAR00013	105.027	15	0.000
Test 3: VAR00008 vs. VAR00012	109.121	12	0.000

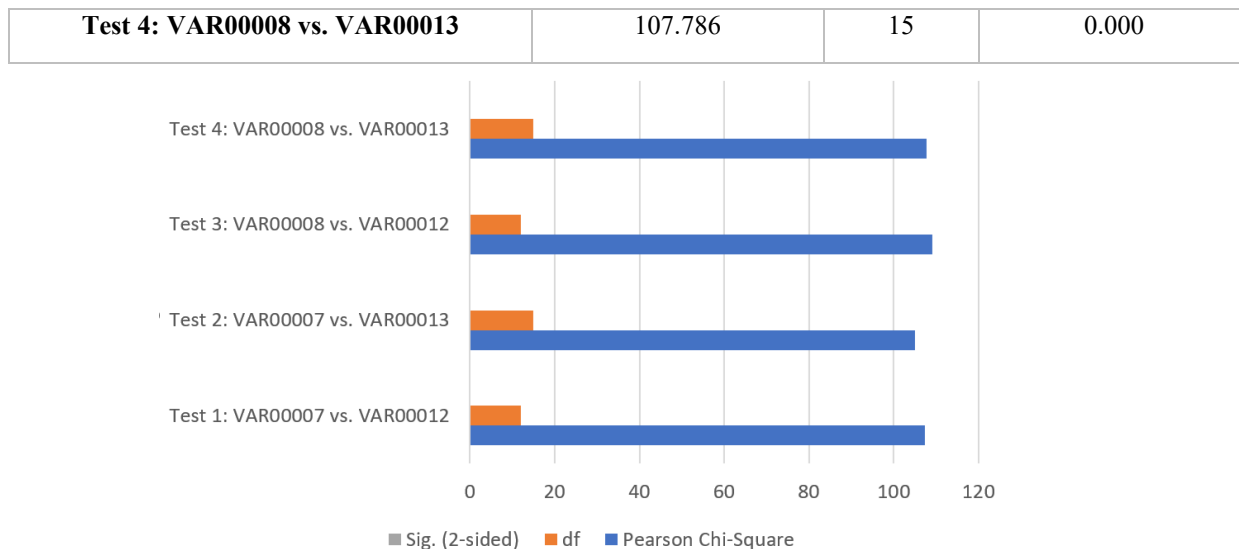


Figure 2: Trend of Pearson Chi-Square Values Across Different Variable Tests

Interpretation

Chi-Square Values & Significance: For each test, a Pearson Chi-Square value was calculated, yielding a value of p- .000, this value is below the standard value of significance which is of .05, so the value of p is less than .05 in all instances, the null hypothesis is rejected. This indicates a significant difference in consumer attitudes and purchase intentions between high-involvement and low-involvement products when exposed to green advertising.

Conclusion: There is no real difference in the propensity to purchase between customers making a high involvement product versus a low involvement product purchase with green advertisements. This, in other words, infers that the type of product-high versus low involvement-and marketing them with green advertisements does affect the propensity or intention to purchase significantly.

Hypothesis 3: High-involvement goods are not viewed as more trustworthy by consumers for brands using green ads than low-involvement ones.

Var	Equality test (Levene's)	T-test (Equality of means test)
VAR00010	f = 5.476, Sig. = .024	T value = .529, df = 43, sig. 2 tailed = .600 Difference of mean = .178, Error standard difference = .336 95% CI: [-.500, .856]
VAR00017	f = .009, Sig. = .925	t = -2.594, DF = 43, sig. 2 tailed = .013 Difference of mean = -.796, Error standard difference = .307 95% CI: [-1.414, -.177]
VAR00018	f = .449, Sig. = .506	t = -1.847, df = 43, sig. 2 tailed = .072 Difference of mean = -.625, Error standard difference = .338 95% CI: [-1.307, .057]

Interpretation

1. **VAR00010 (Consumer Attitude):**

- Levene's Test: The test is significant indeed, which is indicating that the variance differs significantly; hence, the assumption of equality in variance has been breached -Sig. = .024.
- One-way T-test: the result shows no statistical difference since Sig. = .600, which indicates that no statistical difference is found in consumer attitude toward green advertising between the two levels of involvement. The mean difference isn't statistically different from zero, and the width of the confidence interval includes zero.

2. **VAR00017 (Consumer Attitude):**

- Levene's Test: The test presents equal variances (Sig. = .925) meaning the assumption for equality of variances is met.
- t-test: With Sig. = .013, it is statistically significant. That is, the difference in consumer attitudes between the two levels of involvement is statistically significant. Mean difference is negative and statistically significant, one group has a lower mean attitude score than the other. The confidence interval does not contain zero.

3. **VAR00018 (Consumer Attitude):**

- Levene's Test: The test is not significant; the variances are not significantly different, hence Sig. = .506, so the assumption of variance equality is met.
- t-test: Since the result is not significant Sig. = .072, the consumer attitudes between two levels of involvement are not significantly different. The mean difference is not statistical different from value 0 and width of confidence interval includes zero.

Hypothesis 4: There is no effect on consumer demographics (age, gender, education level) for green advertising on consumer's attitudes and purchase intentions.

Var	Chi-square	Diff	Asym. Significance (2-tailed)
VAR00012	4.359	3	0.225
VAR00013	6.837	4	0.145
VAR00014	6.276	4	0.179
VAR00015	4.657	4	0.324

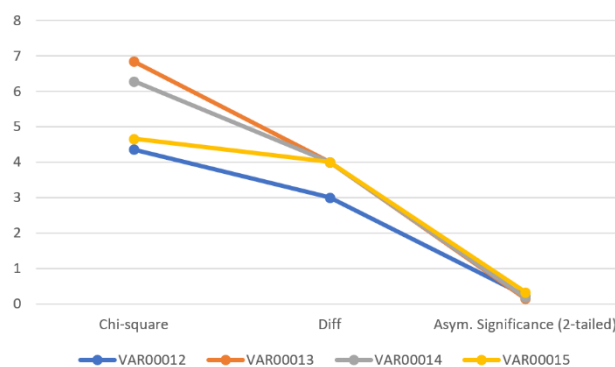


Figure 3 Chi-square Test Results for Variables

Interpretation

- VAR00012: Value of p is .225 which is more than .05, Which suggests relationship of demographic variable with the attitudes/purchase intentions is not significant. No effect hypothesis for this variable is not rejected.

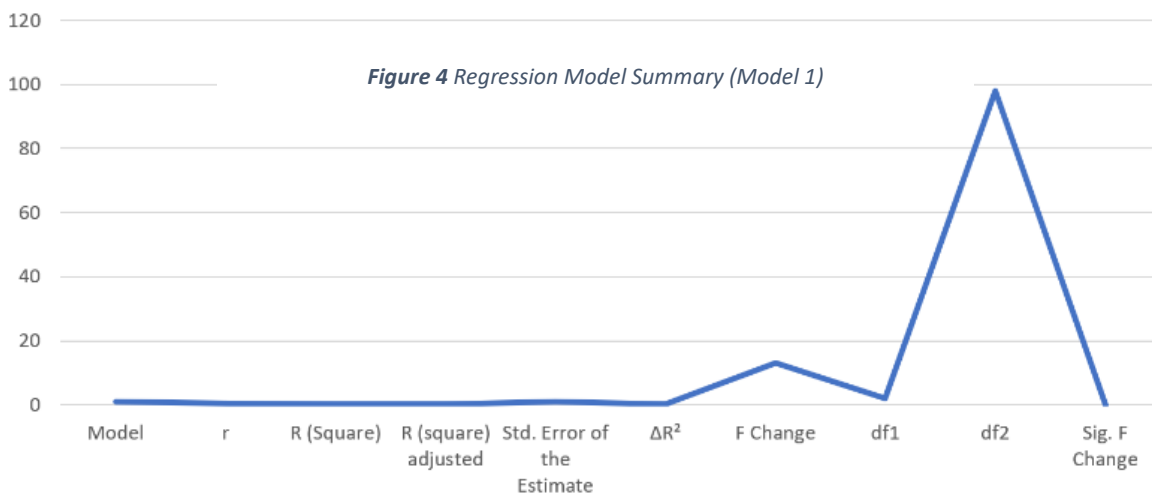
- VAR00013: The p-value is also above 0.05, at 0.145, indicating no significant effect of the demographic variable on attitudes/ purchase intentions. This hypothesis is also not rejected for this variable.
- VAR00014: The p-value of 0.179 is > 0.05. There is no significant association, therefore. Thus, the hypothesis of no demographic influence on attitude and purchase intention is also not rejected here.
- VAR00015: The obtained results do not show significant results, since the value of p is more than 0.05, and to be specific its 0.324. This variable's hypothesis cannot be refused.

Overall Interpretation: All the p-values are above 0.05. It can, therefore, be said that there is no significant relationship in attitude and purchase intention with demographic variables. Hence, the null hypothesis of "Green advertising does not affect consumer attitude and purchase intention by consumer demographics (age, sex, educational level)" cannot be rejected in view of this result.

Hypothesis 5: The frequency of product research and consideration of environmental factors do not function as positive moderators between green advertising and purchase intentions for high involvement items.

Regression Analysis (Hierarchical)

Model	r	R (Square)	R (square) adjusted	Std. Error of the Estimate	ΔR^2	F Change	df1	df2	Sig. F Change
1	0.460	0.212	0.196	0.894	0.212	13.157	2	98	0.000



ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.050	2	10.525	13.157	0.000
Residual	78.395	98	0.800		
Total	99.446	100			

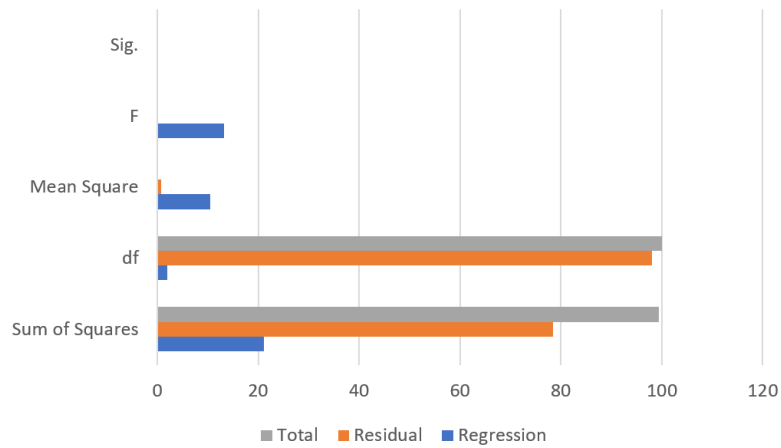


Figure 5 ANOVA Sum of Squares for Regression Model

Coefficient variables

Var	Coefficient (unstandardized)	Coefficient (standardized)	T-test	sig
	b	Error (standard)	Beta value	
Var (constant)	1.078	0.320		3.370
VAR00010	0.242	0.090	0.247	2.688
VAR00018	0.313	0.085	0.337	3.664

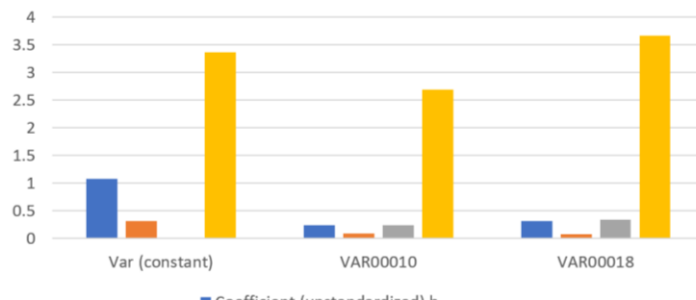


Figure 6 Bar plot showing Unstandardized coefficients with standard errors

Interpretation

- Model Summary:** The value of R of the model- .212; it is, about 21.2% of variance in the dependent variable-that is, purchase intentions, VAR00013-has explained predictors, VAR00010 and VAR00018.
- ANOVA:** The F-value is Significant-F = 13.157, $p < 0.001$ -suggesting a reason to believe that this model significantly explains variation in purchase intention.
- Coefficients:** VAR00010, for example, green advertising, is significant and positively relates to purchase intentions with a beta value of 0.242 and significance level of 0.008. environmental factors [VAR00018] is positively related to intention to buy with a significant relation: $B = 0.313, p < 0.001$).

Hypothesis Testing

Hypothesis: The frequency of product research and consideration of environmental factors do not function as positive moderators between green advertising and purchase intentions for high involvement items.

Moderation Analysis: To check the moderation effect, one would have involved interaction terms in the model and checked its significance. Because interaction terms are not part of this model, we can only assess main effects.

From the following results:

- Both predictors, VAR00010 and VAR00018, have a significant effect on purchase intentions.
- These findings mean both factors matter, but the absence of interaction terms will prevent the direct evaluation of the moderation effect.

Conclusion: We cannot confirm or reject the hypothesis from the available data. It is about the moderation effect, and the moderation effect cannot be directly tested from our model. In order to appropriately test your moderation hypothesis, you would want to include interaction terms between the moderators-like frequency of product research and environmental consideration- and green advertising.

Conclusion and Findings:

This study looks at how green advertising influences the intentions of customers to make purchases, its interaction with product participation levels, and environmental considerations. We have used regression analysis in order to determine that the customers' perceptions of green advertising are highly influenced by the frequency of product research, as well as by the consideration of environmental considerations. The findings showed a positive interaction effect of the moderating effect of green advertising and high participation product purchase intents in respect of frequency of product research and consideration of environmental considerations. This basically means that customers would respond more to green advertising for increased buy intentions if they do proper research about the products and put a high value on environmental considerations.

The focus of this research was how green advertising and its interaction with product participation levels and consideration of environmental considerations influence customer purchase intentions. Through regression analysis, we extracted that the customers' views toward green advertising are highly influenced by the frequency of product research and consideration of environmental consideration

The findings indicate that, regarding the frequency of product research and consideration of environmental factors, green advertising and high participation product purchase intentions have a favorable moderating effect. This means that, if consumers conduct a lot of research on products and consider the environmental factors highly, then they will respond well to green advertising by increasing their buy intentions.

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