



# Green Claims and Detrimental Outcomes: An Analytical Approach

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## Abstract

**Purpose-** The literature reveals that In India, the demand for green products is increasing due to the ecological consciousness of consumers. However, consumers are sceptical towards the claims of green advertisements. It means the consumers belief contradicts with the claims of such advertisements. Therefore, the purpose of this paper is to explore the factors underlying the green product belief of consumers and to ascertain the relationship between consumer belief and deceptive green advertisement claims.

**Design/methodology/approach-** It is an empirical study. Eight-research hypothesis were postulated based on literature review. Judgemental sampling method has been adopted to select a sample of 150 respondents for the study. The study is conducted in Kollam corporation area. Exploratory factor analysis and path analysis were used to analyse the data.

**Findings-** The result showed that consumers favoured green products that are made of natural ingredients. Moreover, they conceived that green products must be recyclable, reusable or biodegradable. The study reveals that social factors not only moderate consumer belief about green products but also it reinforces them to believe that green advertisement claims are deceptive. The study also reveals that the consumers are influenced by their predisposed belief about green products in the evaluation of green claims and it result them to finalize the deceptive claims.

**Research implications-** The implication of research demands that deceptiveness should be managed by controlling the variables identified in the study. If so, it will result the sustainable demand for green products with reliable green claims.

**Originality/value-** The research provides valuable information about variables that create the consumer deceptiveness towards green advertisement claims.

**Keywords:** Consumer belief, green advertisement claim, Deceptive green advertisement claim, Natural ingredient.

## 1. Introduction

Majority of firms are utilizing the opportunity of green products initiatives of consumers, to be competitive in today's market place. The green products marketing in India witnessed an upward trend and more and more companies are producing and marketing green products in Indian markets (Bhattacharya, 2007). It is a matter of scepticism and grave-concern that a good number of manufacturers of green products were not relying the green product philosophy in true sense and creating false-claims in their green advertisements (Carlson et al., 2003; Jain & Kaur, 2004). Therefore, such advertisements create consumer distrust towards the green claims (Carlson et al 1996; Motak & Roy, 2014), because most green advertisement claims were deceptive or misleading the consumers (Kangun et al 1991; Shimp & Preston, 2001; Pechpeyrou & Odou, 2012). Hence, the purpose of this paper is to explore the factors underlying the green product belief of consumers and to ascertain

the relationship between consumer belief and deceptive green advertisement claims.

## 2. Theoretical Framework and Hypotheses Formulation

The green advertisement shows a close relationship between the product and the environment (Banerjee et al 1995). The green claim in such advertisement reveals about the speciality of product to protect the environment. (Scammon & Mayer, 1995). However, consumers are evaluating such claims based on their belief about green products (Elkington, 1989; Varma 2012; Handique, 2014). Consumers belief about green products are connected with products are originally grown, recyclable, reusable, biodegradable, with natural ingredients, having non-toxic chemical or approved chemical, having eco-friendly packing, not pollute the environment, not to create bad effect on health and not to harm any animals. The price and quality of green products are shaping the belief

of consumers (Ziliani, 2005; Cohen, 2002; Palazon & Elena, 2009; Varma 2012; Burke et al., 2014).

Consumers deceptive thought due to vague or ambiguous, false or outright lie or its combinations of claims in such advertisement (Carlson et al 2003, Terra Choice 2013). Vagueness of information about the ingredients of products, uncertain price–quality relations, message exaggeration and vagueness about the environmental friendliness of products are variables that persuade consumers to treat the claim as deceptive. (Carlson et al., 2003; Pracejus et al., 2004; Leonidou et al., 2011; Burke et al., 2014).

The advertisement claim turn to be a false claim due to dissemination of unbelievable quality of products. Sometime, consumers felt that an advertisement claim itself is an outright lie, due to lack of social responsibility of such manufacturers. Moreover, false claims also occurring in the form of false labelling of products (Cavusgil et al., 1993; Rose Resis, 2013; Mondak et al., 2014; Handique, 2014).

The social influence is a moderating factor of consumer belief and their deceptive thought,

which includes the information from friends, colleagues and parents (Moscardelli & Liston-Heyes, 2005). Moreover, consumers' market level experience and previous experience with products are influencing their belief (Boush et al., 1994; Obermiller & Spangenberg, 1998). At the same time, consumers may learn more about green products, which would assist them in the selection or rejection of products (Mondak, et al., 2014).

It is sure that fake messages would create consumer deception (Cain, 2011). Consumer deceptiveness towards green advertisement claims mainly due to lack of claim believability and distorted information (Szykman et al., 1997; Rose Resis, 2013). The absence of supporting evidence of claim in advertisement and lose implication of laws and regulations would leads to deception (Davis, 1993). The thought of profit moto may force manufactures to crate deceptive claim about their products (Carlson et.al., 1993; Sarma & Kukreja, 2015). Green advertisement claim intended to make unwanted influence on people (Friestand & Wright, 1994). The table.1 denotes the variables found in the literature review.

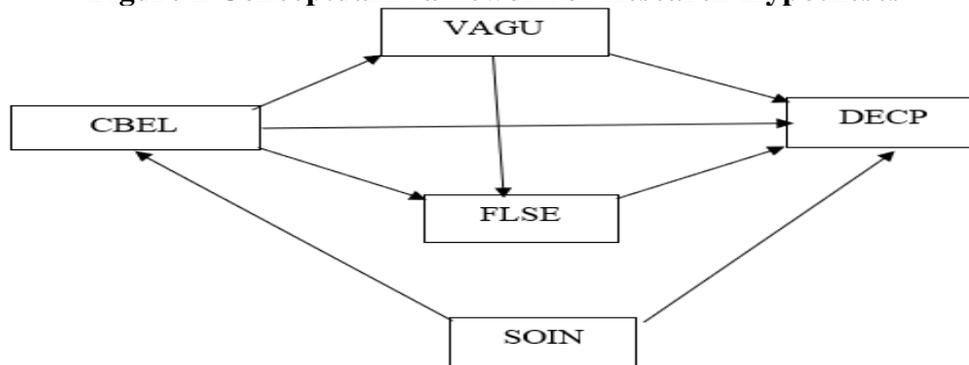
**Table.1 Construct and Predictive Variables**

Construct	Predictive Variables
1.Consumer Belief (CBEL) (Ziliani, 2005; Cohen, 2002; Palazon & Elena, 2009; Burke et al., 2014).	<ol style="list-style-type: none"> <li>1. Green product with natural ingredient.</li> <li>2. Green product with non-toxic chemicals.</li> <li>3. Recyclable, reusable and biodegradability of product.</li> <li>4. Eco-friendly packing of products.</li> <li>5. Good quality product.</li> <li>6. Product not pollute environment.</li> <li>7. Lesser price.</li> <li>8. Product should not create bad effect on health.</li> <li>9. Product should not harm any animals.</li> </ol>
2. Vague or Ambiguous Claim (VAGU) (Carlson et al 2003, Terra Choice 2013; Pracejus et al., 2004; Leonidou et al., 2011; Burke et al., 2014)	<ol style="list-style-type: none"> <li>1.Vague information about ingredient of products</li> <li>2. Uncertain Price-quality relation</li> <li>3. Exaggerated information.</li> <li>4. Vague information about environmental friendliness of products.</li> </ol>
3. False claim (FLSE) (Cavusgil et al., 1993; Rose Resis, 2013; Mondak et al., 2014; Handique, 2014).	<ol style="list-style-type: none"> <li>1. Wrongly state the quality of product.</li> <li>2. False labelling of product.</li> <li>3. Feel the claim is outright lie.</li> <li>4. Lack of social responsibility of manufacture.</li> </ol>
4. Social Influence (SOIN) (Moscardelli & Liston-Heyes, 2005; Boush et al., 1994; Obermiller & Spangenberg, 1998; Mondak, et al., 2014)	<ol style="list-style-type: none"> <li>1. Information from friends and colleagues.</li> <li>2. Family has some concept about green product.</li> <li>3. Learn more about green product.</li> <li>4. Experience with green product.</li> <li>5. Market place information.</li> </ol>

5. Deceptive Green Ad. Claim (DECP) (Cain, 2011; Szykman et al., 1997; Rose Resis, 2013; Davis, 1993; Carlson et.al., 1993; Sarma & Kukreja, 2015; Friestand & Wright, 1994)	<ol style="list-style-type: none"> <li>1. Unbelievable advertisement claim.</li> <li>2. Laws and regulations are not controlling green advertisement.</li> <li>3. Manufacturers look for profit only.</li> <li>4. Green advertisement with unwanted influence and misleading effort.</li> <li>5. Lack of supporting evidence.</li> </ol>
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*Source: secondary data*

**Figure 1 Conceptual Framework of Research Hypotheses**



*Source: primary data*

Therefore, Following are the research hypotheses set for the study.

1. Consumer belief directly influence the evaluation of vague or ambiguous claim in green-advertisement.
2. Consumer belief directly influence the evaluation of false claim in green-advertisement.
3. Social influence moderates the consumer belief.
4. Consumer evaluation of vague or ambiguous claim influences the false claim.
5. Vague or ambiguous claim results to deceptive green-advertisement claim.
6. False claim leads to deceptive green-advertisement claim.
7. Social influence moderates the deceptive green advertisement claim.
8. Consumer belief directly influence the evaluation of deceptive green claim.

### 3. Methodology.

It is an empirical study conducted based on survey research. The variables constituted in the study have derived from the literature review (Table.1). The research of Modak & Roy (2014) outlined that urban middle class consumers in India are the significant users of green products. Therefore, the relevant study carried out at Kollam Corporation area in Kerala State. The research has relied on both primary and secondary data. However,

primary data was the major inputs for the study.

Due to the specificity of the topic, the researcher acknowledged the difficulty of the subjects of the study through probabilistic sampling method. Therefore, Judgemental Sampling method has chosen for the study. In order to have a better result, the researcher has given extreme care to get a coherent representation of various elements of demographic profile in the research.

To confirm the scale items, a pre-testing of selected respondents ( $n=20$ ) was conducted prior to the final survey. The large sample size of 150 responses has taken with maximum effort to avoid the outliers or extreme responses. The respondents were the users of green products.

A questionnaire with five-point Likert scale used for this study. The questionnaire contains 27 statements based on the variables identified. The study intent to identify how consumer belief in turn evaluating a green advertising claim as deceptive claim (Ajzen 1985; Feiemand & Wright 1995). The literature review supports the research framework and the eight research hypotheses.

The data gathered are evaluated by entering them into Microsoft Excel Spreadsheet and used SPSS (21), Amos software for analysis.

#### 4. Analysis and findings

The brief summary of demographic profile shows that 54 percentage of respondents belongs to the age group of 30-49. Whereas, 25 percentage belongs to the age group of 20-29 and 21 percentage belongs to the age group of above 50. Majority of respondents (53%) were females. Out of 150 respondents, 85% were married. The 62 percentage of respondents were educated degree and above. The monthly income of 62 percentage of respondents were between Rs.30,000 to 50,000

##### 4.1 Reliability and Factor analysis

The reliability of 150 responses disclosed that the Cronbach's Alpha ( $\alpha$ ) value 0.855 and it is equivalent with the reliability reported in Laroche et al. (2002).

Consumer Belief is a construct, it assessed with nine predictive variables. These predictive variables are used to measure the factors underlying the green products belief of consumers. The exploratory factor analysis has done with principle component analysis with Varimax rotation. The KMO value is 0.791 with chi-square value 487.538, which satisfy the factorability of the nine variables. The mentioned values are in proportion to previous studies in the relevant domain (Kucukusta et a., 2013; Gregory & Leo, 2003). In the analysis, the nine loaded variables are grouped into two factors. The cumulative percentage of rotation sum squared loading is 60.968, shows the efficiency of the derived two factors.

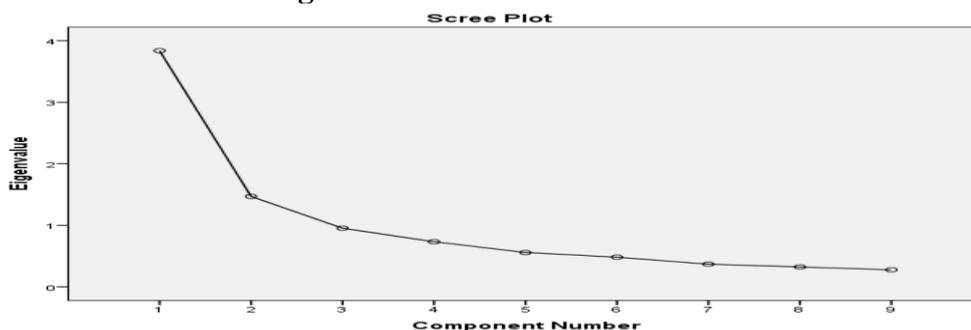
**Table. 2 Factor Loading and Factor Name**

Items	Factor Loading
<b>F1 Health related (<math>\alpha =0.843</math>)</b>	
1. V8 Green products should not create bad effect on the health of consumers.	.862
2. V9 Production of green products should not harm any animals.	.787
3. V5 Green products must have good quality as compared to non-green products.	.772
4. V4 Eco-friendly packing of green products is safer to the environment.	.677
5. V6 Green products should not create environmental pollution.	.670
6. V7 Price of green products should be lesser than its alternatives.	.659
<b>F2 Production related (<math>\alpha=0.702</math>)</b>	
1. V1 Green products are good, if they are made of natural ingredients	.863
2. V 3 Green products should be recyclable, reusable or biodegradable	.817
3. V2 Green products, with non-toxic chemicals or approved chemicals, are acceptable to me.	.591

*a. Rotation converged in 3 iterations*

*Source: Primary data*

**Figure-2 Scree Plot of Variables**



*Source: Primary data*

In dimension reduction, variables are grouped into two factors. These factors are determining the consumer belief about green products; they are F1-Health related and F2-Production related factors. The variable V1 in the Factor F2 has shown the highest factor loading, whereas the variable V8 in the Factor F1 has the highest factor loading. The least factor loading noticed in variable V2 in the factor F2. The composite reliability of factors varied between 0.0702 and 0.843.

#### 4.2 Path Analysis to test Hypotheses

The five constructs in the conceptual framework of the study (table.1) are analysed with descriptive statistics (table.3). Out of (150) respondents, the maximum value is estimated 30 and the minimum 12. The highest mean value 26.17 found in SOIN with a standard deviation of 2.511, whereas the least mean value 20.7 for VAGU with standard deviation 2.919. Moreover, the Cronbach's Alpha ( $\alpha$ ) value for five constructs are above 0.75.

**Table 3 Constructs and Descriptive Statistics**

Construct Code	No. of predictive variables	$\alpha$ Value	Descriptive				
			N	Minimum	Maximum	Mean	Std.D
CBEL	9	0.825	150	16	30	25.58	3.277
SOIN	5	0.792	150	19	30	26.17	2.511
VAGU	4	0.848	150	12	25	20.07	2.919
FLSE	4	0.771	150	17	30	25.76	2.789
DECP	5	0.758	150	15	30	23.94	3.354
<b>Valid N</b>			<b>150</b>				

*Source: Primary data*

The table 4 discloses the model testing results of hypothesized model.

**Table-4 Model Testing**

	Estimate	S.E.	C.R.	P
CBEL <--- SOIN	.873	.080	10.976	***
VAGU <--- CBEL	.320	.068	4.700	***
FLSE <--- CBEL	.302	.057	5.269	***
FLSE <--- VAGU	.403	.064	6.263	***
DECP <--- VAGU	.411	.074	5.546	***
DECP <--- FLSE	.350	.084	4.180	***
DECP <--- SOIN	.310	.096	3.231	.001
DECP <--- CBEL	.059	.081	.734	.463
$X^2$				16.925
df				2
p				.000
GFI				.959
IFI				.955
NFI				.949
CFI				.954

*Source : Primary data*

The path analysis revealed that chi-square value 16.925 at degree of freedom 2 with  $P=0.000$ . If the  $P$  value .000 means the data from the model is significant at the .05 level. The

Goodness of Fit Index (GFI) is .959. The benchmark value of GFI should be less than or equal to one. 'The Incremental Fit Index (IFI) .955 indicate very good fit, because the IFI

value near to one indicate a very good fit. The Normed Fit Index (NFI) was .949 displays the perfect fit. The Comparative Fit Index (CFI) of .954, as the CFI value close to one indicate

the fit. The eight research hypotheses are tested in the table.5 based on the model testing (table.4) results.

**Table-5 Analysis of Research Hypotheses**

Sl	Hypotheses	Regression Weight (RW) with SE	Critical Ratio	P value	Result
1	CBEL directly influence VAGU	RW .320 with SE .068	4.700	<b>P&lt;0.05</b>	Accepted
2	CBEL directly influence FLSE	RW .302 with SE .057	5.269	<b>P&lt;0.05</b>	Accepted
3	SOIN moderate CBEL	RW .873 with SE .080	10.976	<b>P&lt;0.05</b>	Accepted
4	VAGU directly influence FLSE	RW .403 with SE .064	6.263	<b>P&lt;0.05</b>	Accepted
5	VAGU results to DECP	RW .411 with SE .074	5.546	<b>P&lt;0.05</b>	Accepted
6	FLSE leads to DECP	RW .350 with SE .084	4.180	<b>P&lt;0.05</b>	Accepted
7	SOIN moderate DECP	RW .310 with SE .096	3.321	<b>P&lt;0.05</b>	Accepted
8	CBEL directly influence DECP	RW .059 with SE .081	.734	<b>P&gt;0.05 (.463)</b>	Not Accepted

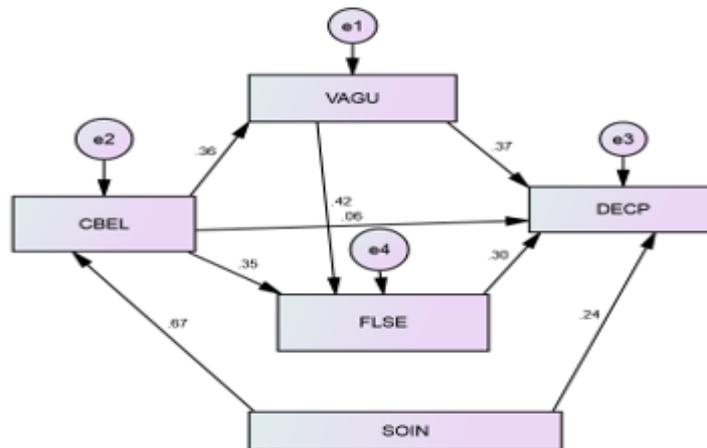
Source : primary data

The last hypothesis was CBEL directly influence the DECP. However, the analysis revealed the regression weight estimate 0.059 with SE 0.081 and the critical ratio is 0.734 with the P value .463. It shows the lack of proper support to accept the relevant research hypothesis. The pictorial representation of

relationship of research hypotheses has shown in the figure. 3

The hypothesized model is analysed with collinearity diagnostics and found that the VIF value is less than 1.9. Therefore, the relevant model is having with the standardized predictors because the VIF are down to an acceptable range.

**Figure No.3 Path Analysis**



Source: Primary data

## 5. Discussion and Implications

The finding of research is inspiring the researcher to quote the following citation.

Consumers favoured to products that are made of natural ingredients and the green products should not create any bad effect on them. So, consumers' evaluation of green products mainly based on these two parameters. Moreover, they conceived that green products to be recyclable, reusable or biodegradable. Therefore, when an advertisement prudently disseminating information of such factors would reduce the self –disastrous effect of green advertisement claim.

According to theory, any product made of approved chemical or non-toxic chemical can treated as green product. However, the study shows that consumers are somewhat reluctant to choose products that made of approved chemical or non-toxic chemicals. Therefore, any advertisement claim for such products may have more chances to consumer deception. Therefore, green manufacturers have to handle such deception through proper message strategy.

The majority of consumers are ready to shell-out higher price for proper green products. Therefore, the less price claim would not create much advantage in the sense of claim effectiveness.

The social factors not only moderate consumer belief about green products but also it reinforces them to believe that green advertisement claims are deceptive. Therefore, the friends, colleagues, family, market place information and self-learning have been influencing to shape the belief of consumers. Hence, these variables have moderating effect on consumer belief about green products and their deceptive thought.

The vague advertisement claims treated by consumers as false claim or deceptive claim. Vague information about product ingredients, price-quality relation and the message exaggeration are distorting the authenticity of green advertisement claim and it results consumer deception. It means, the green

advertisement claim itself can creates the self –disastrous effect, even if the advertised product is purely green. Therefore, it demands for fair advertisement claim with proper supporting evidence. Such kind of strategy would create the claim-believability among consumers. Moreover, the government has to support the green move by the proper implication laws and regulations to control the fake claims.

Therefore, social implication of the research demands that deceptiveness should be managed by managing variables identified in the study. Therefore, the business entities have to manage the identified variables in the study, while in the production of green products and its message dissemination. If so, it will spontaneously control and evade the self-disastrous effect of green advertisement claim.

## 6. Concluding Comments

In India, there is vast opportunity to produce and market green product. The deceptive thought of consumers towards green claim will distracts and diminishes the relevant opportunity. Therefore, it demands proper and just green advertisement claims by considering the relevant variables identified in the study.

“Being good is easy, what is difficult is being just.”

*Victor Hugo*

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