

Exploring Skepticism Toward Green Advertising: An ISM Approach

Vibhava Srivastava*

Abstract

There has been almost the analogous evolution of the phenomenon of green marketing and advertising across the globe though same is not so evident in consumption of environment friendly/green products. The premise of this research is centered upon the domain of green advertising wherein individuals though environment-conscious, tend to be skeptical about green advertising subsequently affecting their attitude and furthering their intention to purchase and consume green products. A group of ten experts with varied background were pooled in and introduced to the variables, identified through an extensive literature review, for exploring the contextual relationships. Interpretive Structural Modeling (ISM) and MICMAC analysis was further employed to conceptualize the inter-relationship between/among these variables. Based on driving power and dependence of respective variable, a framework signifying antecedents to skepticism toward green advertising, is conceptualized and proposed. The present study consolidates and suggests a conceptual framework to understand antecedents leading to skepticism towards green advertising. It is an exploratory research and not the conclusive. Though it proposes a research framework but the same is subject to empirical investigation.

Keyword: Green Advertising, Skepticism, Environment consciousness, ISM

INTRODUCTION

The concept of green marketing has evolved overly since the time it was first introduced in the late 1980s (Peattie & Crane, 2005) and so there has been the analogous growth in green advertising. Consumers' concern about

the environment has increased considerably in recent years and the development of green products and the concomitant use of green advertising have continued to grow (Royne et al., 2012). With a higher consumer awareness of environmental issues, many companies across globe, have jumped on the bandwagon by adopting overtly "green" strategies (Ginsberg and Bloom, 2004; Laroche et al., 2001; Polonsky and Rosenberger, 2001), often making environmental claims in their advertising campaigns with the aim of gaining an edge over their competitors (Connolly and Prothero, 2003; Banerjee et al., 1995; Carlson et al., 1993).

However various researches show that the evolved environmental consumerism is not keeping pace with the increasing number of consumers who report that they are very concerned about the environment (Roper Consulting, 2010) which implies that one's environment consciousness/concern is not resulting into one's consumption of such products i.e. green. There has been a serious dilemma for marketers desiring to target the environmentally conscious/green consumer who is somewhat cynical about marketing activities and is likely to discount particularly, advertising messages and to distrust corporate motives (Zinkhan & Carlson, 1995). Shrum et al., (1995), report that green consumers, though are most likely to buy green products but also are more skeptical of advertising in general and are not brand loyal though past research has identified environmental consciousness as an influential factor not only affecting consumer responses to green advertisements (Schuhwerk & Lefkoff-Hagius 1995) but also determining advertising theme selection (D'Souza & Taghian 2005). Carlson et al., (1993) too report that many green advertising claims are both vague and ambitious. Marketers have a tendency to "push the envelope," especially when promoting

* Assistant Professor (Marketing), Management Development Institute, Gurgaon, Haryana, India.
Email: vibhava.srivastava@mdi.ac.in

products in new media or when creating new types of appeals e.g., green appeals (Zinkhan & Carlson, 1995). Consumers may be suspicious about green advertisers and their overly ambitious claims. It has also been noted that consumers often feel confused about the environmental claims in advertisements (Mayer et al., 1992).

Despite the popularity of the environmental movement and the recent increase in consumer environmental concern, green products, and green advertising, the actual purchasing of green products and patronage of green firms is not representative of the level of self-professed environmental concern by consumers (Gregory & Di Leo, 2003; Mayer et al., 1992; Shrum et al., 1995). Advertising claims that are difficult for consumers to verify are likely to prompt skepticism, consumer distrust, or disbelief of marketer actions (Foreh & Grier, 2003). Not surprisingly, environmental claims are often viewed skeptically and are miscomprehended (Beltramini & Stafford, 1993; Carlson et al., 1993; Shrum et al., 1995). Consumers with very high levels of environmental skepticism would be difficult to persuade with advertisements emphasizing the environmental benefits of an eco-friendly product (Royne et al., 2012). Interestingly, a wealth of research has examined potential factors that might affect the effectiveness of green advertising campaigns (e.g. Obermiller, 1995; Schuhwerk & Lefkof-Hagius, 1995; Zinkhan & Carlson, 1995; Chan, 2000; Hartmann & Apaolaza-Ibañez, 2009).

The present study is exploratory in nature wherein author has tried to conceptualize and propose a framework signifying antecedents to skepticism toward green advertising, using Interpretive Structural Modeling (ISM). An extensive literature review was carried out to identify various antecedents of skepticism toward green advertising. ISM was employed to conceptualize the inter-relationship between/among antecedents and the skepticism toward green advertising. Subsequently MICMAC analysis of developed ISM model was carried out and various propositions were made. Finally the research and managerial implications were discussed.

Theoretical Underpinning

Extensive review of literature using key words like green marketing, advertising and skepticism etc., was carried out and as a result, number of variables were identified, which are shown in table 1.

Skepticism toward Green Advertising

Skepticism toward advertising in general was addressed by different researchers in past, where in efforts were also made to define the same (Kanter & Wortzel, 1985; Lutz, 1985; MacKenzie & Lutz, 1989; Ford et al., 1990; Boush et al., 1994; Friestad & Wright, 1995; Calfee & Ringold, 1994; Mangleburg & Bristol, 1998; Obermiller & Spangenberg, 1998, 2005). The consumer's lack of trust in advertising has been identified as a common thread across various definitions of Skepticism toward advertising (Boush et al., 1994; Mangleburg & Bristol, 1998; Obermiller & Spangenberg, 1998), along with dimensions like mistrust of advertiser motives and disbelief in advertisement (Boush et al., 1994), the perceived motivation of advertisers as well as the claims made by them (Mangleburg & Bristol, 1998) thus suggesting Ad Skepticism as a multi-dimensional construct. However Obermiller and Spangenberg (1998) found it as uni-dimensional construct referring to consumers' tendency toward the disbelief of advertising claims. A clear distinction has also been made between Ad Skepticism and the general attitude toward advertising (Obermiller & Spangenberg, 1998). Similarly, the message source which is contextual and manipulable, should not be considered a dimension of Ad Skepticism (Hardesty et al., 2002). Thus, Advertising claims that are difficult for consumers to verify are likely to prompt skepticism, consumer distrust, or disbelief of marketer's actions (Foreh & Grier, 2003). In continuation to the same, environmental claims are often viewed skeptically and are miscomprehended (Beltramini & Stafford, 1993; Carlson et al., 1993; Shrum et al., 1995; Bickart & Ruth, 2012). Thus, skepticism toward green advertising can be referred as consumer's tendency toward the disbelief of claims in green advertising and can have dimensions like disbelief of environmental/green claims as well as mistrust of advertiser's motives.

Environment Consciousness

Environmental consciousness is defined as a psychological tendency to engage in pro-environmental behavior that reflects the individual's recognition of, and value judgments and behavior intentions towards, environmental issues (Schlegelmilch et al., 1994; Zelezny & Schultz, 2000; Zheng, 2010). Invariably it has been found to be driving varied purchasing and consumption behavior of individuals (Roberts, 1996)

including the likely assessment of post-consumption impact on environment by individuals (Zinkhan & Carlson, 1995) thus limiting the available consumption choices for individuals (Sherif et al., 1965). Thus the degree of environment consciousness has some impact on green consumerism. Green consumers were found to be skeptical about advertisers' environmental/green claims as per the various researches conducted in developed countries particularly (Shrum et al. 1995; Zinkhan & Carlson 1995; Manrai et al. 1997; Mohr et al. 1998) thus suggesting the likely relationship between the degree of environment consciousness and skepticism toward green advertising.

Green Issue Proximity

Green issue proximity refers to the degree of closeness between an individual and the green/environmental issue(s) which is evaluated on the basis of spatial distance (Chang, 2012). The proximity or low and high degree of closeness with green/environmental issue(s) has likely impact upon individuals' sensitivity towards such problems (Takács-Sánta, 2007) thus having varied perceptions in this context (Kollmuss & Agyeman, 2002) particularly when the change in environment is incremental and not immediately tangible (Kollmuss & Agyeman, 2002). The social impact theory (Latané 1981; Latané & Bourgeois 2001) indicates the possible impact of issue proximity, in forming the perceptions and subsequently, in assessing the effectiveness of green marketing/advertising (Chang, 2012).

Credibility of Green Messages

The credibility of any advertisement in general refers to the positive and favorable perception formed by individual(s)/audience(s)/consumer(s) about the claims made to be truthful, convincing and believable in the said advertisement (MacKenzie & Lutz, 1989; Kim & Damhorst, 1999; Goldsmith et al., 2000). The message is perceived to be credible if the same is trustworthy (Szymecko, 2003). The credibility of green messages is made to establish through different means like eco-labeling (Nimon & Beghin, 1999; Thorgersen, 2002), elaborating product specification particularly environmental attributes (Buda & Zhang, 2000), emphasizing recycling credentials

(Karna et al., 2001) and establishing communicators' credibility (Szymecko, 2003) etc. However, in general the credibility of green advertising is considered to be relatively low (do Paco & Reis, 2012) thus it might lead to skepticism toward green advertising.

Perceived Brand Credibility

Individuals' perceived brand credibility is the believability of the product position information contained in a brand, which entails consistently delivering what is promised (Erdem & Swait, 2004). It leads to various outcomes like positive and favorable consumers' attitudes (Goldsmith et al., 2000), increase in customer loyalty (Ginsberg & Bloom, 2004) and increase in sales (Marshall & Mayer, 1992) etc. It is pertinent to say that brand(s) is not only an important and rich source of information to consumer(s) for making purchase (Branthwaite, 2002) and consumption decision but also a source of competitive advantage for firm(s) (Grace and O'Cass, 2002). In this regard Goldsmith et al., (2000) postulate that higher levels of perceived deception were found to be associated with lower levels of perceived brand credibility thus forming less favorable attitude toward the advertisement as well as the advertised brand.

Attitude toward Green Advertiser

Individuals' attitude toward the advertiser in general, is defined as a learned predisposition to respond in a consistently favorable or unfavorable manner toward the sponsoring organization (MacKenzie & Lutz, 1989) and is supposedly contributing in the formation of one's attitude toward the advertisement (MacKenzie & Lutz, 1989). Advertisers have relied on both informational and emotional appeals to help form and change attitudes and to convince consumers to purchase (Edell & Burke, 1987; Ratchford, 1987; Rossiter et al., 1991). The resultant perceived credibility of an advertiser determines the extent to which the audience perceives the claims made to be truthful and believable (Kim & Damhorst, 1999; Goldsmith et al., 2000; Phau & Ong, 2007). Thus individuals' attitude toward green advertiser can be interpreted as individual's perception formed on the basis of truthfulness and believable green claims made in the said advertisement.

Green Ad Guilt Appeal

Appeal(s) as tool in advertising, with the elements of guilt, viewed as complex negative emotional reaction (Festinger, 1962; Ghingold, 1981) on the part of individual(s), reportedly influences individuals' attention, attitude(s) toward product(s), and intention(s) to purchase (Coulter & Pinto 1995; Huhmann & Brotherton 1997; LaBarge & Godek 2006; Basil et al. 2006, 2008; Hibbert et al. 2007;

Hill & Moran 2011; Chang 2011). However, there has been inconsistency and contradiction reported in various research with respect to the guilt appeal(s) whether or not same works or backfires (e.g. Coulter & Pinto 1995; Cotte et al., 2005; Turner et al. 2009). In the context of green advertising, same has been reportedly used to influence consumer behavior (Banerjee et al., 1995; Huhmann & Brotherton 1997; Hibbert et al., 2007; Chang, 2011) thus it can be referred as one of the determinants of attitude towards green advertising, skepticism particularly.

Table 1: Variables Identified

<i>Sr. No.</i>	<i>Variables</i>	<i>Author(s)</i>	<i>Inferences</i>
1.	Skepticism toward Green Advertising	Carlson et al. (1993); Beltramini & Stafford (1993); Boush et al. (1993), 1994; Shrum et al. (1995); Mangleburg & Bristol (1997); Mohr et al. (1997); Obermiller & Spangenberg (1997); Crane (2000); Laroche et al. (2001); Karna et al. (2001); Forehand & Grier (2003); Cone 2011; Finisterra do Paco & Reis (2012); Roynce et al. (2012)	Tendency toward disbelief of ad claims. It often refers to the consumer's lack of trust in advertising. Consumers with very high levels of environmental skepticism would be difficult to persuade.
2.	Environment Consciousness	Zinkhan & Carlson (1995); Shrum et al. (1995); Schlegelmilch et al. (199); Roberts (199); Manrai et al. (1996); Mohr et al. (1997); Zelezny & Schultz (2000); Cotte et al. (2005); Zheng (2010)	A psychological tendency to engage in pro-environmental behaviors that reflects the individual's recognition of, and value judgments and behavior intentions towards, environmental issues.
3.	Green Issue Proximity	Latané (1971); Latané & Bourgeois (2001); Kollmuss & Agyeman (2002); Takács-Sánta (2006); Chang (2012)	The degree of closeness between a person and the issue. People tend to be less sensitive to environmental problems arising far from their own place of living.
4.	Credibility of Green Messages	MacKenzie & Lutz (1979); Nimon & Beghin (1999); Kim & Damhorst (1999); Goldsmith et al. (2000); Buda & Zhang (2000); Karna et al. (2001); Thorgersen (2002); Szymecko (2003); Phau & Ong (2006)	The extent to which the consumer perceives claims made about the brand in the ad to be truthful and believable. Important factors that will influence the response to an advertisement are the manner in which the message is framed and the perceived credibility of the source.
5.	Brand Credibility	Goldsmith et al. (2000); Grace & O'Cass (2002); Branthwaite (2002); Ginsberg & Bloom (2004)	The higher levels of perceived deception were associated with lower levels of perceived credibility, and with less favorable attitudes toward the advertisement and the advertised brand.
.6.	Attitude toward Green Advertiser	MacKenzie & Lutz (1979)	A learned predisposition to respond in a consistently favorable or unfavorable manner toward the sponsoring organization.
7.	Green Ad Guilt Appeal	Ghingold (1971); Banerjee et al. (1995); Coulter & Pinto (1995); Huhmann & Brotherton (1996); Cotte et al. (2005); Block (2005); LaBarge & Godek (200); Basil et al. (200); Hibbert et al. (2006); Basil et al. (2007); Turner et al. (2009); Hill & Moran (2011); Chang (2011), (2012)	A complex emotional reaction on the part of individuals and can be seen as a combination of negative emotions, such as regret, remorse and self-blame. Guilt appeals may work or backfire.

Conceptualizing Framework through Interpretive Structural Modeling (ISM)

In order to conceptualize the framework signifying antecedents of Skepticism toward Green Advertising, Interpretive Structural Modeling (ISM) was utilized. ISM, first proposed by J. Warfield (1974, 1976), is an interactive learning process in which a set of different and directly related variables affecting the issue under consideration are structured into a comprehensive systemic framework. It can act as a tool for imposing order and direction on the complexity of relationships amongst elements pertaining to an issue (Sage, 1977; Watson, 1978). It has been used in varied contexts, to explore a wide range of issues (e.g. Saxena & Vrat, 1992; Mandal & Deshmukh, 1994; Singh et al., 2003; Ravi & Shankar, 2004; Bolanos et al., 2005; Huang et al., 2005; Thakkar et al., 2006; Agarwal et al., 2007; Srivastava & Singh, 2010; Pfohl et al., 2011 etc.). In ISM, no knowledge of the underlying process is required for the participants rather a basic understanding of the subject is sufficient enabling them to respond to the series of relational queries (Srivastava & Singh, 2010). ISM guides and records the results of group deliberations on complex issues in an efficient and systematic manner thus producing a structured model or graphical representation of the original problem situation that can be communicated more effectively to others (Sage, 1977; Watson, 1978). The subsequent section deals with the ISM process where in the various sequential steps of the ISM process, are explicated.

ISM starts with formation of the group of people with relevant knowledge, skills and backgrounds. In this study for identifying the contextual relationship among the variables ten experts were pooled in and consulted who are well conversant with the green marketing practices, particularly green advertising. The group had equal representation from industry as well as academia. These experts were, then introduced to the variables which had been identified and selected for the study through an extensive literature review. The variables are listed in Table 2.

The expert group was asked to deliberate upon and suggest the pair-wise relationships amongst the variables in order to develop the Structural self-interaction Matrix (SSIM). On the basis of possible contextual relationship for each variable, the existence of a relationship between any two variables and the associated direction of the relationship

was questioned. Four symbols were used to denote the direction of relationship between the variables (a & b):

Table 2: List of Variables

Variables	
V1	Environment Consciousness
V2	Green Issue Proximity
V3	Credibility of Green Messages
V4	Skepticism toward Green Advertising
V5	Brand Credibility
V6	Attitude toward Green Advertiser
V7	Green Ad Guilt Appeal

V: a is related to b but b is not related to a.

A: a is not related to b but b is related to a.

X: a and b both are related to each other.

O: a and b both are not related to each other.

The Structural self-interaction Matrix (SSIM), thus developed is shown in Table 3.

Table 3: Structural Self-interaction Matrix (SSIM)

Variables	7	6	5	4	3	2
V1 Environment Consciousness	O	V	O	V	V	A
V2 Green Issue Proximity	O	V	O	V	V	
V3 Credibility of Green Messages	A	A	X	V		
V4 Skepticism toward Green Advertising	A	A	A			
V5 Brand Credibility	O	A				
V6 Attitude toward Green Advertiser	A					
V7 Green Ad Guilt Appeal						

The SSIM was transformed into a binary matrix, known as reachability matrix by substituting V, A, X, and O by 1 and 0 as per the case. The rules for the substitution of 1's and 0's are as follows:

V If a is related to b but b is not related to a, then $a \rightarrow b=1$, $b \rightarrow a=0$.

A a is not related to b but b is related to a, then $a \rightarrow b=0$, $b \rightarrow a=1$.

X a and b both are related to each other, then $a \rightarrow b=1$, $b \rightarrow a=1$.

O a and b both are not related to each other, then $a \rightarrow b=0$, $b \rightarrow a=0$.

Reachability matrix thus developed, was checked for transitivity. It states that if a variable A is related to B and B is related to C , then A is necessarily related to C (Table 4). In this table, the driving power and dependence of each variable was also shown. The driving power of a particular variable is the total number of variables (including the said variable itself) which it may help to achieve. The dependence is the total number of variables which may help in achieving it.

Table 4: Reachability Matrix

Variables	1	2	3	4	5	6	7	Driver Power
V1	1	0	1	1	0	1	0	4
V2	1	1	1	1	0	1	0	5
V3	0	0	1	1	1	0	0	3
V4	0	0	0	1	0	0	0	1
V5	0	0	1	1	1	0	0	3
V6	0	0	0	1	1	1	0	3
V7	0	0	1	1	0	1	1	4
Dependence	2	1	5	7	3	4	1	

The reachability matrix was decomposed into different levels in order to create structural framework. The reachability and antecedent set for each variable was found out from the reachability matrix where in the reachability set for a particular variable consists of the variable itself and the other variables, which it may help to achieve while the antecedent set consists of the variable itself and the other variables, which may help in achieving it.

Subsequently, the intersection of these sets was derived for all variables. The variable for which the reachability and the intersection sets are the same is assigned the top-level in the ISM hierarchy, which would not help achieve any other variable above its own level. After the identification of the top-level variable, it was discarded from the other remaining variables. From Table 5, it can be seen that skepticism toward green advertising (V4) was found at Level I. Thus, it would be positioned at the top of the ISM framework. This iteration was continued till the levels of each variable were found out. The identified levels aid in building the digraph and the final framework of ISM. The variables, along with their reachability set, antecedent set, intersection set and the levels, are shown in Tables 5-9.

Table 5: Iteration 1

Variables	Reachability Set	Antecedents Set	Intersection Set	Levels
1	1,3,4,6	1,2	1	
2	1,2,3,4,6	2	2	
3	3,4,5	1,2,3,5,7	3,5	
4	4	1,2,3,4,5,6,7	4	I
5	3,4,5	3,5,6	3,5	
6	4,5,6	1,2,6	6	
7	3,4,6,7	7	7	

Table 6: Iteration 2

Variables	Reachability Set	Antecedents Set	Intersection Set	Levels
1	1,3,6	1,2	1	
2	1,2,3,6	2	2	
3	3,5	1,2,3,5,7	3,5	II
5	3,5	3,5,6	3,5	II
6	5,6	1,2,6	6	
7	3,6,7	7	7	

Table 7: Iteration 3

Variables	Reachability Set	Antecedents Set	Intersection Set	Levels
1	1,6	1,2	1	
2	1,2,6	2	2	
6	6	1,2,6	6	III
7	6,7	7	7	

Table 8: Iteration 4

Variables	Reachability Set	Antecedents Set	Intersection Set	Levels
1	1	1,2	1	IV
2	1,2	2	2	
7	7	7	7	IV

Table 9: Iteration 5

Variables	Reachability Set	Antecedents Set	Intersection Set	Levels
2	2	2	2	V

This provided a multi-level interpretive structural framework in which the relations amongst variables were clarified (Figure 1).

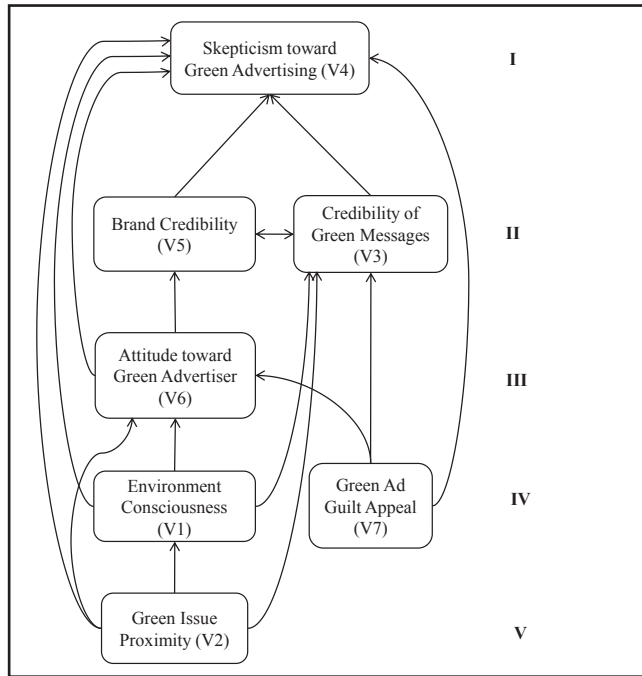


Fig. 1: ISM Framework for Skepticism toward Green Advertising

Subsequently, MICMAC analysis (Duperrin & Godet, 1973) was carried out to classify variables into four clusters (Figure 2) with an objective to analyze the driving power and the dependence of the respective variables. The taxonomy for the said clusters consists of the autonomous variables, the dependent variables, the linkage variables and the independent variables respectively. This clustering was done on the basis of reachability matrix (Table 4) wherein the driving power and the dependence of each of the respective variables had been identified.

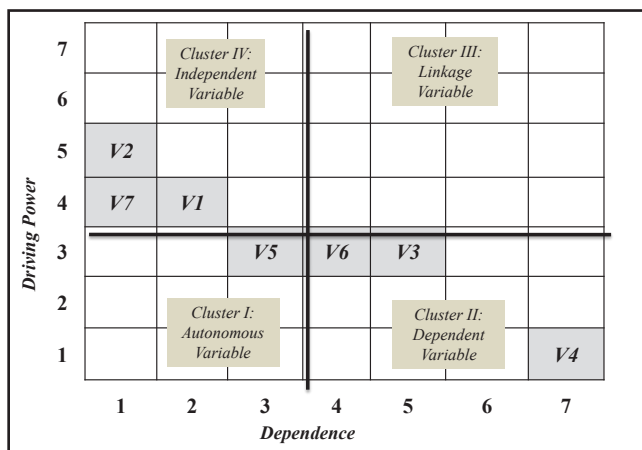


Fig. 2: MICMAC Analysis

The first cluster of autonomous variable(s) is characterized with weak dependence as well as weak driving powers. These variables though are relatively disconnected from the said phenomenon but may have few links, sometimes strong one. In the present study, variable Brand Credibility (V5) was found to be classified as autonomous variable. The second cluster of dependent variable(s), characterized with weak driving power but strong dependence, includes the variables Credibility of Green Messages (V3), Skepticism toward Green Advertising (V4) and Attitude toward Green Advertiser (V6). No variable was found to be part of third cluster of linkage variable(s) which has characteristics of strong driving power along with strong dependence. The fourth and last cluster consisting of independent variables signifies strong driving power and weak dependence thus same is often termed as key variable(s) (Ravi & Shankar, 2005). This cluster includes variables Environment Consciousness (V1), Green Issue Proximity (V2) and Green Ad Guilt Appeal (V7).

There is a possibility of various antecedents leading to skepticism toward green advertising which further may affect individuals' behavioral dispositions particularly the consumption of products supposedly green or environment friendly. The ISM framework and the subsequent MICMAC analysis suggest various propositions though those are subject to empirical investigation.

The study suggests that environment consciousness, green issue proximity and green ad guilt appeal can primarily be identified as the variables directly as well as indirectly leading to skepticism toward green advertising since these are the variables falling in the cluster of independent/key variable(s) (Figure 2), which is characterized with strong driving power but weak dependence. Thus the proposition can be made that the level of environment consciousness may have positive and significant impact on the degree of skepticism toward green advertising (Zinkhan & Carlson, 1995; Phau & Ong, 2007; Chang, 2012; do Paço & Reis, 2012; Bickart & Ruth, 2013; Matthes & Wonneberger, 2014). Environment consciousness can further be hypothesized as driver forming attitude toward green advertiser (Zinkhan & Carlson, 1995) and affecting credibility of green messages (Phau & Ong, 2007). The attitude toward green advertiser is further hypothesized to be driven by green issue proximity and green Ad guilt appeal (Cotte et al., 2005; Chang, 2012) while credibility of green messages is hypothesized to be driven by green

issue proximity and green Ad guilt appeal (Cotte et al., 2005; Chang, 2012) as well as brand credibility (Phau & Ong, 2007). The variables skepticism toward green advertising, credibility of green messages and attitude toward green advertiser are identified as dependent variables since the MICMAC analysis classifies them into second cluster of dependent variables with weak driving power but strong dependence. Here skepticism toward green advertising might be getting influenced by the said credibility of green messages (Cotte et al., 2005) and attitude toward green advertiser (Cotte et al., 2005).

The ISM framework further suggests that proximity to green issue(s) can be hypothesized as a factor influencing not only the degree of skepticism toward green advertising (Chang, 2012) but also the level of environment consciousness, hence it can be treated as moderating variable in the said proposition. The guilt appeal in green Ad might form favorable or unfavorable attitude toward the said green advertiser and subsequently might affect the degree of skepticism toward green advertising (Chang, 2012).

Further the cluster of autonomous variable(s) with the characteristics of weak dependence as well as weak driving powers can be hypothesized as mediating variable(s) affecting skepticism toward green advertising. Thus variable brand credibility is hypothesized to be driven by attitude toward green advertiser and also influencing the degree of skepticism toward green advertising. Here brand credibility and credibility of green messages may be treated as co-variant as both are hypothesized to be influencing each other (Phau & Ong, 2007).

Conclusion and Research Implications

The study is exploratory in nature and thus does not conclude. The interpretive structural modeling employed in the study, results a framework which provides a conceptual understanding about the possible factors influencing the degree of skepticism toward green advertising. However this is primarily a theoretical framework which needs to be tested empirically. Based on the ISM framework and subsequent MICMAC analysis various propositions have been formulated. This further requires operationalization of each of those variables identified and suggested in the framework and same can be subjected to empirical investigation. Multiple regression analysis or structural equation modeling (SEM) can be used to validate the

framework. However SEM seems to be more feasible in this regard since the framework incorporates certain latent variables and also comprises of variables with dual nature, that is, being antecedent as well as consequence at the same time, thus the prepositions will be tested as a standard two step approach of SEM. It is a powerful multivariate technique which is used to establish the linear relationship between different variables of the study and is particularly useful in testing theories that contain multiple equations involving dependence relationships. It helps to identify direct and indirect effects in a complex system of variables, and allows including the mediating variables in the analysis easily. It provides a method of dealing with multiple relationships simultaneously and comprehensively for determining the goodness of fit measure of the sequential model (Bentler, 1990; Hair et al., 2007).

References

- Agarwal, A., Shankar, R., & Tiwari, M. K. (2007). Modeling agility of supply chain. *Industrial Marketing Management*, 36(4), 443-457.
- Banerjee, S., Charles, S. G., & Easwar, I. (1995). Shades of green: A multidimensional analysis of environmental advertising. *Journal of Advertising*, 24(2), 21-32.
- Basil, D. Z., Ridgway, N. M., & Basil, M. D. (2006). Guilt appeal: The mediating effect of responsibility. *Psychology and Marketing*, 23(12), 1035-1054.
- Basil, D. Z., Ridgway, N. M., & Basil, M. D. (2008). Guilt and giving: A process model of empathy and efficacy. *Psychology and Marketing*, 25(1), 1-23.
- Beltramini, R. F., & Stafford, E. R. (1993). Comprehension and perceived believability of seals of approval information in advertising. *Journal of Advertising*, 22(3), 3-13.
- Bickart, B. A., & Ruth, J. A. (2012). Green eco-seals and advertising persuasion. *Journal of Advertising*, 41(4), 51-67.
- Block, L. G. (2005). Self-referenced fear and guilt appeals: the moderating role of self-construal. *Journal of Applied Social Psychology*, 35(11), 2290-2309.
- Bolanos, R., Fontela, E., Nenclares, A., & Pastor, P. (2005). Using interpretive structural modelling in strategic decision-making groups. *Management Decision*, 43(6), 877-895.
- Boush, D. M., Friestad, M., & Rose, G. M. (1994). Adolescent skepticism toward TV advertising and

- knowledge of advertiser tactics. *Journal of consumer research*, 165-175.
- Branthwaite, A. (2002). Investigating the power of imagery in marketing communication: evidence-based techniques. *Qualitative Market Research: An International Journal*, 5(3), 164-171.
- Buda, R., & Zhang, Y. (2000). Consumer product evaluation: The interactive effect of message framing, presentation order and source credibility. *The Journal of Product & Brand Management*, 9(4), 229.
- Calfee, J. E., & Ringold, D. J. (1994). The 70% majority: Enduring consumer beliefs about advertising. *Journal of Public Policy & Marketing*, 228-238.
- Carlson, L., Grove, S. J., & Kangun, N. (1993). A content analysis of environmental advertising claims: a matrix method approach. *Journal of Advertising*, 22(3), 27-39.
- Chan, R. Y.K. (2000). The effectiveness of environmental advertising: The role of claim type and the source country green image. *International Journal of Advertising*, 19(3), 349-375.
- Chang, C. T. (2011). Guilt appeals in cause-related marketing: The subversive roles of product type and donation magnitude. *International Journal of Advertising*, 30(4), 587-617.
- Chang, C. -T. (2012). Are guilt appeals a panacea in green advertising? The right formula of issue proximity and environmental consciousness. *International Journal of Advertising*, 31(4), 741-771.
- Connolly, J., & Prothero, A. (2003). Sustainable consumption: Consumption, consumers and the commodity discourse. *Consumption Markets and Culture*, 6(4), 275-91.
- Cotte, J., Coulter, R. A., & Moore, M. (2005). Enhancing or disrupting guilt: The role of ad credibility and perceived manipulative intent. *Journal of Business Research*, 58(3), 361-368.
- Coulter, R. H., & Pinto, M. B. (1995). Guilt appeals in advertising: What are their effects? *Journal of Applied Psychology*, 80(6), 697-705.
- D'Souza, C., & Taghian, M. (2005). Green advertising effects on attitude and choice of advertising themes. *Asia Pacific Journal of Marketing and Logistics*, 17(3), 51-66.
- do Paço, A. M. F., & Reis, R. (2012). Factors affecting skepticism toward green advertising. *Journal of Advertising*, 41(4), 147-155.
- Duperrin, J. C., & Godet, M. (1973). *Methodes de hierarchisation des elements d'un systeme*, Rapport Economique du CEA, Paris.
- Edell, J. A., & Burke, M. C. (1987). The power of feelings in understanding advertising effects. *Journal of Consumer research*, 421-433.
- Erdem, T., & Swait, J. (2004). Brand credibility, brand consideration, and choice. *Journal of Consumer Research*, 31(1), 191-198.
- Farris, D. R., & Sage, A. P. (1975). On the use of interpretive structural modeling for worth assessment. *Computers & Electrical Engineering*, 2(2), 149-174.
- Festinger, L. (1962). *A Theory of Cognitive Dissonance*, 2. Stanford, CA: Stanford university press.
- Ford, G. T., Smith, D. B., & Swasy, J. L. (1990). Consumer skepticism of advertising claims: Testing hypotheses from economics of information. *Journal of Consumer Research*, 433-441.
- Foreh, M. R., & Grier, S. (2003). When is honesty the best policy? The effect of stated company intent on consumer skepticism. *Journal of Consumer Psychology*, 13(3), 349-356.
- Friestad, M., & Wright, P. (1995). Persuasion knowledge: Lay people's and researchers' beliefs about the psychology of advertising. *Journal of Consumer Research*, 62-74.
- Ghingold, M. (1981). Guilt arousing communications: an unexplored variable, in K. Monroe (ed.) *Advances in Consumer Research*, 8. Ann Arbor, MI: Association for Consumer Research, 442-448.
- Ghingold, M. (1981). Guilt arousing marketing communications: an unexplored variable. *Advances in consumer research*, 8(1), 442-448.
- Ginsberg, J. M., & Bloom, P. (2004). Choosing the right green marketing strategy. *MIT Sloan Management Review*, 46 (1).
- Goldsmith, E. R., Lafferty, A. B., & Newell, J. S. (2000). The impact of corporate credibility and celebrity credibility on consumer reaction to advertisements and brands. *Journal of Advertising*, 29(3), 43-54.
- Grace, D., & O'Cass, A. (2002). Brand associations: Looking through the eye of the beholder. *Qualitative Market Research: An International Journal*, 5(2), 96-111.
- Gregory, G. D., & Leo, M. D. (2003). Repeated behavior and environmental psychology: the role of personal involvement and habit formation in explaining water consumption1. *Journal of Applied Social Psychology*, 33(6), 1261-1296.

- Hardesty, D. M., Carlson, J. P., & Bearden, W. (2002). Brand familiarity and invoice price effects on consumer evaluations: the moderating role of skepticism toward advertising. *Journal of advertising*, 31(2), 1-15.
- Hartmann, P., & Apaolaza-Ibáñez, V. (2009). Green advertising revisited: conditioning virtual nature experiences. *International Journal of Advertising*, 28(4), 715-739.
- Hasan, M. A., Shankar, R., & Sarkis, J. (2007). A study of barriers to agile manufacturing. *International Journal of Agile Systems and Management*, 2(1), 1-22.
- Hawthorne, R. W., & Sage, A. P. (1975). On applications of interpretive structural modeling to higher education program planning. *Socio-Economic Planning Sciences*, 9(1), 31-43.
- Hibbert, S., Smith, A., Davies, A., & Ireland, F. (2007). Guilt appeals: persuasion knowledge and charitable giving. *Psychology and Marketing*, 24(8), 723-742.
- Hill, R. P., & Moran, N. (2011). Social marketing meets interactive media. *International Journal of Advertising*, 30(5), 815-838.
- Huang, J. J., Tzeng, G. H., & Ong, C. S. (2005). Multidimensional data in multidimensional scaling using the analytic network process. *Pattern Recognition Letters*, 26(6), 755-767.
- Huhmann, B. A., & Brotherton, T. P. (1997). A content analysis of guilt appeals in popular magazine advertisements. *Journal of Advertising*, 26(2), 35-46.
- Kanter, D. L., & Wortzel, L. H. (1985). Cynicism and alienation as marketing considerations: Some new ways to approach the female consumer. *Journal of Consumer Marketing*, 2(1), 5-15.
- Karna, J., Juslin, H., Ahoven, V., & Hansen, E. (2001). Green advertising: Greenwash or a true reflection of marketing strategies? *Journal of Corporate Environmental Strategy and Practice*, 33, 59-70.
- Kim, H. S., & Damhorst, M. L. (1999). Environmental attitude and commitment in relation to ad message credibility. *Journal of Fashion Marketing & Management*, 3(1), 1-30.
- Kollmuss, A., & Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*, 8(3), 239-260.
- LaBarge, M. C., & Godek, J. (2006). Mothers, food, love and career the four major guilt groups? The differential effects of guilt appeals, in C. Pechmann & L. Price (eds) *Advances in Consumer Research*, Vol. 33, p. 511. Duluth, MN: Association for Consumer Research.
- Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18(6), 503-521.
- Latané, B. (1981). The psychology of social impact. *American Psychologist*, 36(4), 343-356.
- Latané, B., & Bourgeois, M. J. (2001). Successfully simulating dynamic social impact: three levels of prediction, in J.P. Forgas & K.D. Williams (eds) *Social Influence: Direct and Indirect Process*. New York: Taylor & Francis, 61-76.
- Latane, B. I. B. B., & Bourgeois, M. J. (2001). Successfully simulating dynamic social impact. *Social influence: Direct and indirect processes*, 3, 61.
- Lutz, R. J. (1985). Affective and cognitive antecedents of attitude toward the ad: A conceptual framework. *Psychological processes and advertising effects*, 45-63.
- MacKenzie, S. B., & Lutz, R. J. (1989). An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context. *The Journal of Marketing*, 48-65.
- Mandal, A., & Deshmukh, S. G. (1994). Vendor selection using interpretive structural modelling (ISM). *International Journal of Operations & Production Management*, 14(6), 52-59.
- Mangleburg, T. F., & Bristol, T. (1998). Socialization and adolescents' skepticism toward advertising. *Journal of Advertising*, 27(3), 11-21.
- Manrai, L. A., Manrai, A. K., Lascu, D. N., & Ryans Jr, J. K. (1997). How green-claim strength and country disposition affect product evaluation and company image. *Psychology and Marketing*, 14(August), 511-537.
- Marshall, M. E., & Mayer, D. W. (1992). Environmental training: It's good business. *Business Horizons*, 35(2), 54-57.
- Matthes, J., & Wonneberger, A. (2014). The skeptical green consumer revisited: Testing the relationship between green consumerism and skepticism toward advertising. *Journal of Advertising*, 43(2), 115-127.
- Mayer, R. N., Scammon, D. L., & Zick, C. D. (1992, May). *Turning the competition green: the regulation of environmental claims*. In Proceedings of the 1992 Marketing and Public Policy Conference (152-165). American Marketing Association Chicago, IL.

- Mohr, L. A., Eroglu, D., & Ellen, P. S. (1998). The development and testing of a measure of skepticism toward environmental claims in marketers' communications. *Journal of Consumer Affairs*, 32(1), 30-55.
- Nimon, W., & Beghin, J. (1999). Are eco labels valuable? Evidence from the apparel industry. *American Journal of Agricultural Economics*, 81(4), 801-11.
- Obermiller, C. (1995). The baby is sick/the baby is well: a test of environmental communication appeals. *Journal of Advertising*, 24(2), 55-72.
- Obermiller, C., & Spangenberg, E. R. (1998). Development of a scale to measure consumer skepticism toward advertising. *Journal of Consumer Psychology*, 7(2), 159-186.
- Obermiller, C., Spangenberg, E., & MacLachlan, D. L. (2005). Ad skepticism: The consequences of disbelief. *Journal of Advertising*, 34(3), 7-17.
- Peattie, K., & Crane, A. (2005). Green marketing: Legend, myth, farce or prophesy? *Qualitative Market Research: An International Journal*, 8(4), 357-370.
- Pfohl, H. C., Gallus, P., & Thomas, D. (2011). Interpretive structural modeling of supply chain risks. *International Journal of physical distribution & logistics management*, 41(9), 839-859.
- Phau, I., & Ong, D. (2007). An investigation of the effects of environmental claims in promotional messages for clothing brands. *Marketing Intelligence & Planning*, 25(7), 772-788.
- Polonsky, M. J., & Rosenberger, P. J. III (2001). Reevaluating green marketing: a strategic approach. *Business Horizons*, September-October, 21-30.
- Ratchford, B. T. (1987). New Insights about the FCB Grid. *Journal of Advertising Research*, 11(4), 24-38.
- Ravi, V., & Shankar, R. (2005). Analysis of interactions among the barriers of reverse logistics. *Technological Forecasting and Social Change*, 72(8), 1011-1029.
- Roberts, J. A. (1996). Green consumers in the 1990s: profile and implications for advertising. *Journal of business research*, 36(3), 217-231.
- Rossiter, J. R., Percy, L., & Donovan, R. J. (1991). A better advertising planning grid. *Journal of Advertising Research*, 31(5), 11-21.
- Royne, M. B., Martinez, J., Oakley, J., & Fox, A. K. (2012). The effectiveness of benefit type and price endings in green advertising. *Journal of Advertising*, 41(4), 85-102.
- Sage, A. P. (1977). *Systems engineering: Methodology & applications*. IEEE Computer Society Press.
- Saxena, J. P., & Vrat, P. (1992). Scenario building: A critical study of energy conservation in the Indian cement industry. *Technological Forecasting and Social Change*, 41(2), 121-146.
- Schlegelmilch, B. B., Diamantopoulos, A., & Bohlen, G. M. (1994). *The value of socio-demographic characteristics for predicting environmental consciousness*. In Marketing Theory and Applications: The Proceedings of the 1994 American Marketing Associations Winter Educators Conference (Vol. 5, 348-349).
- Schuhwerk, M. E., & Lefkoff-Hagius, R. (1995). Green or non-green? Does type of appeal matter when advertising a green product? *Journal of advertising*, 24(2), 45-54.
- Sherif, C. W., Sherif, M., & Nebergall, R. E. (1965). *Attitude and attitude change: The social judgment-involvement approach* (127-167). Philadelphia: Saunders.
- Shrum, L. J., McCarty, J. A., & Lowrey, T. M. (1995). Buyer characteristics of the green consumer and their implications for advertising strategy. *Journal of Advertising*, 24(2), 71-82.
- Singh, M. D., Shankar, R., Narain, R., & Agarwal, A. (2003). An interpretive structural modeling of knowledge management in engineering industries. *Journal of Advance Management Research*, 1(1), 28-40.
- Srivastava, V., & Singh, T. (2010). Value creation through relationship closeness. *Journal of Strategic Marketing*, 18(1), 3-17.
- Szymbek, L. (2003). Risk Communication. Retrieved from www.envirotools.org/presentations.Shtml, accessed between July-August 2014.
- Takács-Sánta, A. (2007). Barriers to environmental concern. *Research in Human Ecology*, 14(1), 26-38.
- Takács-Sánta, A. (2007). Barriers to environmental concern. *Human Ecology Review*, 14(1), 26.
- Thakkar, J., Deshmukh, S. G., Gupta, A. D., & Shankar, R. (2006). Development of a balanced scorecard: an integrated approach of interpretive structural modeling (ISM) and analytic network process (ANP). *International Journal of Productivity and Performance Management*, 56(1), 25-59.
- The GfK Roper Consulting. (2012). Green Gauge studies. Retrieved from http://www.scjohnson.com/Libraries/Download_Documents/SCJ_and_GfK_Roper_Green_Gauge.sflb.ashx accessed between July-August, 2014.

- Thorgersen, J. (2002). Promoting 'green' consumer behavior with eco-labels, in Dietz, T. and Stern, P.C. (Eds), *New Tools for Environmental Protection*, Washington, DC: National Academy Press.
- Turner, M., Xie, X., Lanmm, E., & Southard, B. (2009). *Encouraging mothers to get a mammogram: A cross-cultural examination of guilt appeals*. Paper presented at the annual meeting of the International Communication Association, New York.
- Warfield, J. N. (1974). Developing subsystem matrices in structural modeling. *Systems, Man and Cybernetics, IEEE Transactions on*, (1), 74-80.
- Warfield, J. N. (1976). *Societal systems: Planning, policy, and complexity*. New York: Wiley.
- Watson, R. H. (1978). Interpretive structural modeling - A useful tool for technology assessment? *Technological Forecasting and Social Change*, 11(2), 165-185.
- Zelezny, L. C., & Schultz, P. (2000). Psychology of promoting environmentalism: promoting environmentalism. *Journal of Social Issues*, 56(3), 365-371.
- Zheng, Y. (2009). Association analysis on pro-environmental behaviors and environmental consciousness in main cities of East Asia. *Behaviormetrika*, 37(1), 55-69.
- Zinkhan, G. M., & Carlson, L. (1995). Green advertising and the reluctant consumer. *Journal of Advertising*, 24(2), 1-6.