CHAPTER 2

LITERATURE REVIEW

This chapter is devoted to the review of extant literature related to the topic of research. Initially literature on green advertising is reviewed, followed by related research on environmental concern and environmental knowledge. Subsequently literature regarding involvement, perceived risk and protection motivation theory is discussed. Next, a review on temporal message framing and goal framing is presented. Finally the chapter concludes by highlighting the available research opportunities which serve as the impetus for this research.

2.1 GREEN ADVERTISING

Green advertising typically involves the usage of claims that either emphasize the relationship between the product/service with the environment, promote a green lifestyle or the brand’s commitment towards the environment (Banerjee et al 1995). It also refers to the creation of promotional messages that appeals to the needs and desires of environmentally concerned consumers (Zinkhan & Carlson 1995). Green advertisements usually emphasize the environmental attributes or ecological implications of the product (Schuhwerk & Lekoff-Hagius 1995).

Initial work on green advertising in the early 90’s was focused on the development of taxonomies for classifying green advertisements in western countries using content analysis. Validity and specificity of the
claims were some of the key aspects investigated in these studies. Most of these studies indicated that environmental claims made in green advertisements were vague, unsubstantiated, omitted factual information and served as an image building exercise for most firms (Kangun et al 1991; Mohr et al 1993; Carlson et al 1993). Most green advertisements depicted the green image of an organization without any substantiation (Bannerjee et al 1995; Carlson et al 1993; Carlson et al 1996).

Green advertisements from developing countries have been analysed only recently. Green automobile advertisements in China (Dai et al 2011), green advertisements in Malaysia (Saabar et al 2011) are studies that use samples from developing countries. Table 2.1 summarizes the country, type of media, variables used in the taxonomies for content analysis studies. Most of these studies use predefined typologies and taxonomies to classify environmental claims.

Table 2.1 Content analysis of green advertisements in extant literature

<table>
<thead>
<tr>
<th>Year</th>
<th>Country</th>
<th>Media</th>
<th>Coding variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>USA</td>
<td>Print</td>
<td>Advertisement target, advertisement objective, economic chain and advertisement appeal (Iyer &amp; Banerjee 1993)</td>
</tr>
<tr>
<td>1993</td>
<td>USA</td>
<td>Print</td>
<td>Features emphasized in the claims as claims with (1) Product orientation (2) Process orientation (3) Image orientation (4) Environmental Fact and (5) Combination (Carlson et al 1993).</td>
</tr>
<tr>
<td>1995</td>
<td>USA</td>
<td>Television</td>
<td>Advertisement characteristics, ad greenness, advertisement objective, advertisement appeal, and advertisement issues (Banerjee et al 1995).</td>
</tr>
</tbody>
</table>
Table 2.1 (Continued)

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<thead>
<tr>
<th>Year</th>
<th>Country</th>
<th>Media</th>
<th>Coding variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>Finland</td>
<td>Print</td>
<td>Advertisement objective, Executional framework, Message elements, Consumer benefits, Driving forces (Kärnä et al)</td>
</tr>
<tr>
<td>2011</td>
<td>China</td>
<td>Print</td>
<td>green theme, green stage of life cycle, green appeals level, appeal point and its driving force (Dai et al 2011)</td>
</tr>
<tr>
<td>2011</td>
<td>Malaysia</td>
<td>Print</td>
<td>advertisement’s characteristics, advertisement greenness, advertisement objective, advertisement appeals, environmental issues (Saabar et al 2011)</td>
</tr>
<tr>
<td>2011</td>
<td>International</td>
<td>Print</td>
<td>advertiser profile, targeting features, message aspect, copy characteristics (Leonidou et al 2011)</td>
</tr>
<tr>
<td>2012</td>
<td>US and UK</td>
<td>Print</td>
<td>advertisement orientation, greenwashing offenses (Baum 2012)</td>
</tr>
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2.1.1 Type of Environmental Claims in Green Advertising

A number of researchers have classified environmental claims in green advertisements based on environmental claim specificity. Kangun et al (1991) found that most environmental claims were vague and omitted relevant information based on a convenient sample of advertisements in the U.S. They classified phrases or statements in green advertisements that were too broad to have a clear meaning as “vague”. For example phrases like “environment-friendly”/“eco-friendly” belong to this category. Banerjee et al (1995) have labelled such vague claims as “shallow” and refer to information specific claims as “moderate” and “deep” based on the information specificity of the claim. A highly specific environmental claim will therefore contain concrete and tangible environmental benefits (Davis 1993; Manrai et al 1997).
Carlson et al (1993) developed a typology of five green advertising claim categories - (a) Product claims (environmentally friendly attributes that a product possesses), (b) Process claims (internal production methods/technology used by the company that are environmental-friendly) (c) Image claims (organizational support for environmental cause or activity) (d) Fact based claims (claims that state environmental facts) (e) Combination claims (combination of different types of categories). Product and process related claims are considered substantive claims as they provide concrete tangible information when compared to image related claims (Carlson et al 1996). Image related claims describe intangible benefits that are not substantiated and are therefore vague in nature (Carlson et al 1996; Baum 2012).

Among these categories, image and fact based claims have been categorized as “associative” claims. These claims tend to greatly increase consumer confusion in the market place and are considered posturing by marketers since they do not require modification in the firm’s environmental performance (Carlson et al 1996). Typically green advertisements with image orientation show the company supporting environmental causes which are popular with the public. Examples include claims like “We are committed to saving tigers”, “We honor those working for the green cause”. Fact related claims make statements about the physical environment. “Up to 360,000 lives saved per hectare of forest” is a fact-related claim.

Initial studies that were conducted during the early stages of the formulation of green advertising regulations by the FTC (Federal Trade Commission) in the U.S revealed that most environmental claims were image enhancing claims (Carlson et al 1993; Iyer & Banerjee 1993). Recent studies also show that most green advertisements in the U.S and U.K still use image oriented claims (Baum 2012). When green advertisements are not
substantiated, the associated firm is considered to be greenwashing (Davis 1993; Kärnä et al 2001).

2.1.2 Misleading Green Advertisements – Greenwashing

Greenwashing refers to vague, unsubstantiated and potentially misleading environmental claims (Carlson et al 1993). The phenomenon of greenwashing was recognized in the 90’s in green advertising (Carlson et al 1993) and regulatory / public policy (Kangun et al 1991; Scammon & Mayer 1995) studies. Researchers from different disciplines have worked on greenwashing, based on approaches modelled on theories in their respective subjects.

This is not surprising as green marketing studies have inevitably included multi-disciplinary views to understand the environment (Kilbourne 2004). This has contributed to the greenwashing literature being a varied collection of investigations on green marketing (Crane 2000), public policy (Kirchhoff 2000), social accounting (Laufer 2003), CSR (Corporate Social Responsibility) (Hamann & Kapelus 2004) and econometrics (Lyon & Maxwell 2011). Most of this work consists of descriptive studies, case studies or definition of conceptual frameworks.

Researchers in the marketing domain have classified deceptive or misleading environmental claims in advertising (i.e. greenwashing) into (1) vague/ambiguous (2) omission (3) false and (4) combination categories (Carlson et al 1993). Vague/ambiguous claims use empty phrases like “eco-friendly” with insufficient substantiation. Omission refers to claims that do not contain information to ascertain the veracity of the claim. For instance, the claim might state that the product contains no mercury or other pollutants with no way to verify the claim. False claims are outright lies where claims state that the packaging is biodegradable when it is not. Combination claims
refer to a mix of any of the aforementioned categories. Perception of deception in the green advertisement by the consumer affects the organization adversely as it leads to decreased purchase intention and negative attitude towards the advertisement and brand (Shrum et al 1995; Newell et al 1998). Greenwashing also erodes consumer trust and increases confusion about green claims (Chen & Chang 2012).

Rising scepticism from consumers and other stakeholders is one of the consequences of greenwashing. Consumers recognize misleading claims and are willing to punish corporations indulging in “greenwashing” (Delmas & Montiel 2009). This has given rise to a situation where companies are reluctant to exhibit their green credentials fearing backlash (Crane 2000; Furlow 2010).

Absence of regulation encourages greenwashing (Delmas & Burbano 2011; Polonsky et al 2011). The important consequence of greenwashing is that it reduces the need for differentiating the organization through sustainability. Firms lose the incentive to pursue sustainability initiatives as the consumer grows increasingly sceptical and unconcerned about environmental claims (Furlow 2010; Koslow 2000). Marketers have therefore considered using a number of appeals to persuade the sceptical and reluctant green consumer (Zinkhan & Carlson 1995).

2.1.3 Appeals used in Green Advertising

Most consumers are sceptical of environmental claims in advertisements (Mohr et al 1993) and most researchers have observed that only the environmentally-concerned consumer favour green products (Obermiller 1995). However favourable attitudes towards green issues do not indicate green consumption behaviour (Schuhwerk & Lefkoff-Hagius 1995;
Some of the appeals that have been studied include:

1. **Green vs. non-green:** Few studies verified the benefits of a green appeal vis-à-vis a non-green appeal. Consumers who are not highly involved with the environment are influenced by green appeals (Schuhwerk & Lefkoff-Hagius 1995). Recent studies indicate that the consumers’ self-regulatory focus can also modify their response towards green or a non-green appeal. Consumers who were focused on prevention were persuaded by a message that linked product attributes with a green appeal whereas promotion focused consumers preferred gain-related situations (Ku et al 2012). Certain researchers also confirmed that environmentally concerned consumer respond negatively to green appeals if they found evidence of irresponsible behaviour from the advertising company (Cervellon 2012).

2. **Environmental / green issues:** Green issues that are favourable to human health were successful in gaining favourable consumer attitudes when compared to the well-being of the biosphere or popular issues (Stafford et al 1996). This indicates that anthropocentric concern plays a larger role than altruistic concern for the environment (Polonsky 2011). Recent green advertising research also suggests that the differential effects of framing the outcomes of environmental appeals to benefit self or family should be examined (Kareklas et al 2014).

3. **Sick vs. Well baby appeal:** Obermiller (1995) examined previous assertions about this category of appeal, borrowed from social marketing and determined that the well baby appeal
(appeal that emphasized that the consumer would be able to address the problem accentuating personal effectiveness) was suitable when concern for the environmental issue is high. Sick baby appeal was suitable for unimportant and unfamiliar environmental issues.

4. **Guilt appeals**: Very few studies have used affective appeals. Jiménez & Yang (2008) have found that when compared to high guilt appeals, low guilt appeals ensured favourable attitude towards the green advertisement. Consumers with low environmental consciousness are affected by guilt appeals based on high proximal issues such as environmental problems in the local geography (Chang 2012).

5. **Fear appeals**: Meijnders et al (2001) have shown that moderate and high fear levels positively influence consumer attitude towards green products.

6. **Use of visuals**: Visuals that depict nature also increase consumer experience of emotional consumption benefits in green advertisements (Hartmann & Apaolaza-Ibáñez 2008). Emotionally connecting the individual with the natural setting also amplifies effects of green advertising (Hu 2012; Xue 2014).

Consumers’ attitudes towards country-of-origin of the product and perceived eco-friendly image of the originating country also moderate the relationship between claim type and advertising effectiveness (Chan et al 2006; Manrai et al 1997).

Most of these studies have been conducted in western countries. Indian consumers however trust cause-related claims because of their novelty and attribute high altruistic reasons for the companies involved in cause-
related marketing (La Ferle et al 2013). There has been a gradual increase in research on green marketing and green consumer behaviour studies in India since 2008.

2.1.4 Green Marketing and Advertising in India

Rapid industrialization in India post liberalization, has been at times at the cost of the natural environment (Jena et al 2005). However Indian companies have been taking steady steps to be ecologically conscious. One of the drivers of corporate environmental responsiveness in Indian companies is their history and culture of social responsiveness (Sandhu et al 2012). Companies in India are also hesitant to position their products as environment friendly due to low consumer awareness which means that the consumer would respond to affective cues rather than other formats.

Business houses like the Tatas, Unilever, Mahindras, Wipro and ITC are active participants in green and sustainability initiatives (Srinivasan & Dey 2010). Some of the drivers of these initiatives include: increasing environmental awareness among consumers (Jain & Kaur 2006), rising corporate concern towards environmental issues and anticipation of regulation (Bose 2009, Sandhu et al 2012). Recent literature also shows that Indian consumers expect value for money and are reluctant to spend a premium on green goods or services (Bhate 2001; Dutta et al 2008; Manaktola & Jauhari 2007).

India is a populous emerging market with increasing household incomes (Beinhocker et al 2007). Therefore a large market and a growing consumer base with rising disposable income should serve as a major driver of green advertising in India. However there is very little research on the effect of green advertising claims on the Indian consumer. Additionally, it is also known that only 5% of environmental claims made in green campaigns
are entirely true in India (Mishra & Sharma 2010) and they are not always based on authentic scientific evidence (Nair & Menon 2008). This is an important consequence of a lack of regulation of environmental claims in India.

2.1.5 Regulation of Green Advertising claims in India

Efficient regulation of green advertising claims has been the objective of a number of public policy studies (Kangun et al 1991; Scammon & Mayer 1995). Most developed countries have governing bodies that have strict regulations regarding greenwashing. The FTC (Federal Trade Commission) in the U.S, DEFRA (Department for Environment, Food and Rural Affairs) in the U.K provide standards for the usage of green advertising claims.

However, green advertising is considered to be in the nascent stage in India with no accepted guidelines to standardize environmental claims (Nair & Menon 2008). Statutory bodies in western countries scrutinize green claims with an exacting set of rules whereas there are no recommendations for regulations of environmental claims in India. Neither the voluntary self-regulatory council body Advertising Standards Council of India (ASCI) nor the legal regulatory framework offer guidelines for the use of environmental claims in advertising in India. This highlights the fact that there is an absence of government as well as industry regulation for green claims in India.

Globally, eco-labels and ratification by independent and credible third parties are used to improve the credibility of claims. However in India, they are utilised sparingly. The “Ecomark” (http://www.cpcb.nic.in/licence_ecomark.php) - an eco-labelling scheme promoted by the Indian government in 1991 was largely unsuccessful. Lack of political will, opaque
communication between the various regulatory bodies and low consumer awareness were some of the major reasons for this failure (Mehta 2007).

Consumers’ environmental concern and environmental knowledge are therefore important factors for the success of green advertising and marketing.

2.1.6 Environmental Concern

Environmental concern is a construct that comprises of two components namely environment and concern. The environment component is the substantive component that is operationalised by a particular issue like pollution and the concern component is drawn from attitude theory relating to the nature of belief, attitude and intentions a person holds (Dunlap & Jones 2002).

Some consumer behaviour studies demonstrate that environmental concern has a direct impact on brand perceptions (Kinnear & Taylor 1973; Minton & Rose 1997). However a number of researchers contend that environmental concern alone does not encourage specific environmental behaviour. For instance, consumers’ involvement with the environment does not mean that they intend to purchase green products (Newell et al 1998). Similarly, Bamberg (2003) shows that situation specific cognitions are more directly related to behavioural intentions when compared to the level of environmental concern. Fujii (2006) also demonstrates that environmental concern does not evince environmentally-friendly behaviour. Thøgersen et al (2012) speculate that while a number of consumers are environmentally involved they may not choose green products due to information overload in the decision making process. Environmental concern is also a topic that elicits socially desirable response from respondents as they feel that less favourable responses indicate apathy towards environmental degradation. Most
respondents therefore report high environmental concern (Bord et al 1998; Ewert & Baker 2001; Ewert & Galloway 2009).

Nisbet et al (2008) suggest that the underlying values and attitudes that contribute to environmental concern need to be investigated further to identify the factors that motivate environmentally concerned behaviours.

2.1.6.1 Environmental concern and consumer purchase behaviour

Consumers are motivated to make a purchase decision when the green product is also beneficial to them as well as the environment (Follows & Jobber 2000). Most researchers agree that the relationship between environmental concern and behaviour is weak and that environmental concern can account for only 10 percent variance of environmental behaviour (Bamberg 2003). Ginsberg & Bloom (2004) propose that appealing to the consumer’s self-interest while promoting environmental benefits is a more successful strategy when compared to highlighting “green attributes” only. For example “saving money”, “safer for your children” are benefits that are attractive to the consumer and present a “win-win” situation (Pickett-Baker & Ozaki 2008). This advantage has been proved true in the developing country context also (Ramayah et al 2010).

Apart from a few researchers like Kim et al (1997), most green advertising studies do not find any significant effects of environmental concern on purchase behaviour. In fact consumers’ with high environmental concern are more skeptical of environmental claims (do Paço et al 2012; Bickart & Ruth 2012).

Other green advertising researchers and climate change communication researchers agree that environmental messages that emphasize public health and/or national security are more emotionally
engaging and personally relevant (Stafford et al 1996; Ottman et al 2006; Myers et al 2012) and hence more persuasive.

2.1.6.2 Environmental concern among Indian consumers

Indian consumers exhibit a high degree of environmental concern (Bhate 2002; Goswami 2008; Saxena & Khandelwal 2012) and are more receptive to green marketing (Jain & Kaur 2006). The Indian consumer tops the list of sustainable consumers in a quantitative consumer study of 17,000 consumers from 17 countries (http://images.nationalgeographic.com/wpf/media-content/file/GS_NGS_2012GreendexHighlights_10July-cb1341934186.pdf).

Although Indian consumers are concerned about the environment (Bhate 2002), their awareness of environmental issues is low (Mehta 2007). Low consumer awareness of environmental issues in India (Widmer et al 2005) is a major deterrent of green marketing. Consumer education is necessary for sensitising the Indian consumer towards environmental concerns (Das 2007). This aspect is true for most developing countries (Mourad 2012; Abd Rahim et al 2012; Rashid 2009).

2.1.7 Environmental Knowledge and Green Advertising

Most researchers have investigated the role of environmental concern (also referred as subjects’ involvement with the environment) in influencing consumer responses to green advertisements (Schuhwerk & Lefkoff-Hagius 1995; Kim et al 1997; Newell et al 1998; Chang 2011; Bickart 2012; do Paço & Reis 2012) and have largely ignored environmental knowledge.
Environmental knowledge can be defined as the ability to distinguish between the symbols, concepts and behaviour related to environmental protection (Laroche et al 2001). “It is also a term used to mean knowledge and awareness about environmental problems and possible solutions to those problems” (Zsóka et al 2013). Some researchers say that the link between environmental knowledge and pro-environmental behaviour is not well-established (Laroche et al 2001; Duerden & Witt 2010). Yet, some say that the value of environmental education cannot be undermined in motivating environmentally responsible behaviour and purchase intentions (Manrai et al 2007; Parizanganeh et al 2011) or encouraging environmentally concerned decision making in the market place (Roberts & Bacon 1997).

Consumer knowledge can be measured as “subjective” or “objective” knowledge. Subjective knowledge is measured as a self-assessed report of one’s knowledge and the consumers rate their own knowledge level. Objective knowledge reflects what is stored in memory and is an actual measure of what an individual knows (Brucks 1985). People who report high subjective environmental knowledge may not have the requisite knowledge to make correct ecological decisions (Ellen 1994). Manrai et al (1997) use “subjective environmental knowledge” measures by asking respondents to rate how much they knew about environmental issues and found a positive relationship between purchase intention and subjective knowledge. They were not able to relate subjective knowledge to brand attitudes.

When the consumer is knowledgeable on specific issues like pollution, he develops a favourable attitude towards purchasing green products (D'Souza et al 2006; Van de Velde 2010). Rashid (2009) found that consumer awareness of eco-labels is low in Malaysia and educating the consumer is necessary to increase their purchase intentions towards green products. Low consumer awareness is one of the reasons for failure of green
marketing tools like eco-labels in developing countries (Gallastegui 2002; Mehta 2007). Consumer education on environmental issues or eco-literacy is therefore essential for encouraging green purchases (Cheah & Phau 2011; He et al 2011). Tilikidou (2007) found moderate correlation between objective environmental knowledge and pro-environmental purchasing behaviour. Recent research has determined that higher levels of objective environmental knowledge determined purchase intentions among students (Paladino & Ng 2013).

Researchers either use measures of subjective environmental knowledge (Schlegelmilch et al 1996; Manrai et al 1997) or objective environmental knowledge (Maloney & Ward 1975; Bartiaux et al 2008) in their studies. Marketing studies have also found that consumer’s expertise is based on objective knowledge as they tend to overestimate their subjective knowledge (Alba & Hutchinson 2000). Some researchers also feel that subjective knowledge might be an incorrect measure of environmental issues (Schlegelmilch et al 1996).

Consumers with low levels of knowledge or awareness have a low ability to process green advertisements. Again, if they are not concerned about the environment, then too, they have low motivation to process a green advertisement. Advertisement processing is characteristically a low involvement scenario and attitude persistence can be achieved only when the message is elaborated systematically (Haugtvedt & Petty 1992). Only when the message is processed in a more elaborate manner, memory is also enhanced for the message information (Hawkins & Hoch 1992). Therefore green advertising studies should focus on increasing involvement in low motivation and awareness situations. This is because involvement is a key construct in the Elaboration Likelihood Model and an important antecedent of persuasion (Petty et al 1981; Petty et al 1983; Petty & Wegner 1999).
2.2 INVolvEMEnt AND THE ELABORATION LIkELIHOOD MODEL (ELM)

The ELM is an important dual-process theory that explains attitude creation and change. Figure 2.1 shows the model. When the recipient is motivated to process the message and possess the abilities to evaluate the information, then he elaborates the information or is capable of thinking about it extensively. Such extensive thinking about the message facilitates attitude change via the “central route” to persuasion. In case the recipient is not motivated to process the message or does not possess adequate knowledge then peripheral processing occurs and attitude change can occur due to peripheral cues such as source expertise.

Attitude changes caused by the central route are more persistent and endure over time (Petty & Cacioppo 1986). Personal relevance to the message greatly increases involvement with the message and therefore activates the central route to attitude change. Involvement is typically defined as the extent of consumer interest in a product or product category based on the consumer’s need and goals (Petty & Cacioppo 1981; Bloch 1981; Zaichkowsky 1985). While involvement is an important moderator of consumer behaviour (Dholakia 2001) it is also a complicated construct (Park & Young 1986) as multiple researchers have used different terminologies (Rodríguez-Santos et al 2011) and dimensions (Park & Mittal 1995; Kapferer & Laurent’s 1993) to distinguish this construct.
Figure 2.1 Elaboration Likelihood Model (ELM)
(Source: Petty & Wegner 1999)
Some of these terms include “product involvement” (Zaichkowsky 1985), “enduring involvement” (long term involvement), “situational involvement” (temporary involvement) (Richins & Bloch 1986), “message involvement” (involvement with the advertising message) (Baker & Lutz 1987), “response involvement” (Zimbardo 1960) and “felt involvement” (a combination of personal knowledge and situational involvement) (Celsi & Olson 1988). Despite the differences in the terms used, most researchers agree that involvement is a motivational construct (Zaichkowsky 1985; Dholakia 2001) and when consumers are highly involved with the target, they choose to elaborate information using the “central” route (Petty et al 1983) which improves their attention and comprehension (Celsi & Olson 1988).

Enduring involvement is a long term permanent concern with the issue or product (Richins & Bloch 1986; Higie & Feick 1989). For example consumers who have an interest in mobile phones will always pay attention to events or issues related to the phone. They would read magazines and books on mobile phones, browse user reviews on different versions on the Internet, pay attention to mobile phone advertisements and are aware of the latest models. Situational involvement is temporary in nature and is evoked by external stimuli and is goal directed. Once the goal is achieved the consumer’s interest wanes. An individual who wants to purchase a mobile phone would be involved in the present with mobile phone advertisements or reviews because of the current need. When the product purchase is complete, involvement level will decline to previous levels (Gulas et al 2009).

2.2.1 Involvement and Green Advertising

Environmental concern is therefore treated as an enduring involvement with the environment (Nelson et al 2009). A consumer who has high enduring involvement with the environment, keeps abreast of
environmental issues and makes eco-friendly purchases (Grimmer & Woolley 2012).

Most green advertising researchers typically target only the environmentally concerned consumer (Schuhwerk & Lefkoff-Hagius 1995; Kim et al 1997; Newell et al 1998; D’Souza & Taghian 2005; Mostafa 2007; Pickett-Baker & Ozaki 2008; Bickart & Ruth 2012). By and large these studies report conflicting results. Schuhwerk & Lefkoff-Hagius (1995) found that consumers with low involvement towards the environment were persuaded by green appeals when compared to consumers who were highly involved with the environment. Some researchers also found that that consumers’ involvement with the environment need not always translate to purchase intentions (Newell et al 1998; Pickett-Baker & Ozaki 2008; Thøgersen et al 2012). Using a tri-component approach (cognition, affect and behaviour) Grimmer & Woolley (2012) found that only the affect component of environmental involvement moderates consumer responses to green appeals. Hu (2012) found that only consumers who were highly involved with the environment were influenced by green advertisements. Bickart & Ruth (2012) found that different levels of environmental concerns moderate purchase intentions towards familiar and unfamiliar brands. Very few studies investigate other types of variables like product or service involvement. It can be seen from Table 2.2 that most green advertising studies focus only on the consumers’ enduring involvement with the environment.

Table 2.2 Involvement in green advertising studies

<table>
<thead>
<tr>
<th>Type of Involvement measured in green advertising studies</th>
<th>Extant Literature</th>
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<tbody>
<tr>
<td>Service involvement</td>
<td>Chan (2006)</td>
</tr>
<tr>
<td>Product involvement</td>
<td>Kong &amp; Zhang (2013); Paladino &amp; Ng (2013)</td>
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Of these two constructs eco-fashion involvement predicted consumer attitude towards the brand and advertisement but not purchase intention whereas environmental involvement determined purchase intentions. Kong & Zhang (2013) investigate the differential effects of green appeals for low involvement and high involvement products and find that green appeals work well for low involvement products.

Using the enduring or issue involvement with the environment variable is highly logical as it definitely induces central route to processing of the message (Petty & Cacioppo 1986). Nevertheless, it also amounts to green marketing myopia as these advertisements target only a certain category of consumers and projects the aspirations of the marketer to appear green rather than address the consumers’ needs and goals (Ginsberg & Bloom 2004;
Ottman & Hartman 2006). Consequently marketers need to look beyond the green consumer niche and develop strategies to increase the use of green products (Rex & Baumann 2006). Again, most of these studies are conducted in western countries where this group of consumers favour a LOHAS (“lifestyles of health and sustainability”)-oriented lifestyle (Kotler 2011). Not many studies have identified such specific segments in the context of the developing world. Most of the studies conducted in developing countries use socio-demographic variables like gender, age or education levels to segment consumers (Jain & Kaur 2006; Mostafa 2007; Mourad 2012).

Recent green advertising studies have started to look beyond environmental concern to motivate consumers. Chang (2011) acknowledges the gap between environmental concern and purchase decisions and hence investigates the moderating effect of the consumers’ ambivalent attitudes towards green product purchase. Chang (2012) uses issue proximity or the geographical distance of the issue as a situational factor that influences the effect of guilt appeals in the promotion of green products. Tangari & Smith, (2012) attempt to persuade consumers to use energy-saving products by stressing on monetary benefits. Emphasis on psychological brand benefits also improves purchase intentions towards green products (Hartmann & Apaolaza-Ibáñez 2012). Tucker et al (2012) found that a consumer’s environmental attitude did not have a significant effect on advertisement involvement. Kareklas et al (2014) found that egoistic concerns clubbed with altruistic concerns elicit favourable responses from consumers.

Although situational involvement is known to increase consumer attention (Richins & Bloch 1986) and elaboration (Celsi & Olson 1986), it has not been used by many green advertising studies.
2.2.2 Situational Involvement and Message Involvement

Situational involvement is concerned with a specific situation like purchase decision or election (Kapferer & Laurent 1993; Dholakia 2001). Consumer’s situational involvement enhances consumers’ attention and elaboration (Richins & Bloch 1986). Both enduring and situational involvement have similar outcomes like information search and increased attention to messages (Celsi & Olson 1988).

Most researchers treat perceived risk as an antecedent to situational involvement (Richins & Bloch 1986; Kapferer & Laurent 1993). When the consumer perceives a risk in the purchase decision he elaborates the information and is more involved with the purchase decision. Therefore situational involvement increases message elaboration via the central route (Petty & Cacioppo 1981; Petty et al 1983). Situational involvement is also influenced by personal relevance (Celsi & Olson 1988; Gulas et al 2009; Rodríguez-Santos et al 2011). If the locus of personal relevance is the consumer, then the involvement is termed as enduring and when the locus of personal relevance is the situation, it is termed as situational involvement (Huang 2006). Situational involvement is therefore caused by extrinsic motivation and the consumer who is situationally involved is engaged in goal-directed behaviour (Hoffman & Novak 1996).

Similar to purchase decision involvement, message involvement can also be considered as a case of situational involvement. Message involvement is defined as “a motivational construct that influences consumers’ motivation to process information at the time of message exposure” (Baker & Lutz 2000). It is the temporary situational involvement of an individual which is evoked by a specific message at a particular point in time (Lee 2000). Advertising message involvement has been shown to increase elaboration and systematic processing of message through the central
route (Petty & Cacioppo 1986). This variable represents an “individual, internal-state variable that indicates the amount of arousal, interest or drive evoked by an advertisement message” (Lee 2000). The target of this involvement is typically the advertisement and the persistence or temporal context is temporary (Richins & Bloch 1986).

Celsi & Olson (1988) measured felt involvement with an advertisement message and showed that increasing levels of involvement with the message produced better attention and cognitive effort towards comprehension. Consumers do not expend cognitive resources to process advertisements in typical day-to-day situations unless they are highly involved with the advertised product or issue (Maclnnis & Jaworski 1989). For example, it has been shown that comparative advertising encourages high message involvement, which in turn increases message elaboration and central-route processing (Muehling et al 1990). Therefore message involvement suitably increases message elaboration in advertising scenarios (Laczniak & Muehling 1993b). When the consumer allocates more resources to processing the message it improves the persuasiveness of the message (Sengupta et al 1997; Kokkinaki & Lunt 1999).

Message involvement can also be viewed as a concept connected to the creation of a situation that increases the personal relevance to the consumer to promote increased processing of the stimulus (Andrews & Durvasula 1991; Laczniaik & Muehling 1993a). Thus message involvement can be considered as an important construct that motivates consumer attention and increases consumer’s message processing and elaboration. Message involvement is either measured or manipulated in extant literature. Most studies that manipulate message involvement inform participants by specific instruction to increase involvement levels in the high message involvement conditions. For example, in high involvement conditions, some researchers
(Park & Young 1986; Muehling & Lacziak 1996; Lacziak et al. 1999) encourage participants to view advertisements as if they were making a purchase decision. Some researchers inform high involvement groups that the advertised product would be locally available and the participants’ feedback is important (Petty et al. 1983; Sengupta et al. 1997). Other researchers who measure message involvement treat it as a consequence of the manipulation of different antecedents like framing (Cox & Cox 2001) and message engagement (Wang 2006) and therefore use different scales to measure the variable.

In recent research, message involvement has also been treated as a mediator of product evaluations (Polyorat et al. 2007) and message acceptance (Cauberghe et al. 2009). Hence increasing message involvement would greatly increase message elaboration and therefore influence the persuasiveness of the message.

2.2.3 Perceived Risk

Perceived risk plays an important role in consumer decision making and information search (Mitchell 1999). Perceived risk typically involves uncertainty and the negative consequences or losses associated with a decision (Dowling & Staeling 1994). These losses can be financial, performance, physical, psychological, and social (Jacoby & Kaplan 1972).

While performance risk (“physical or emotional harm resulting from substandard performance”) and financial risk (“loss of economic outlays if product doesn’t perform”) are commonly investigated in consumer behaviour studies (Aqueveque 2006), physical risk has been considered in a few studies only. For example, air travel behaviour studies consider the role of perceived physical risk (Boksberger et al. 2007) to understand consumer risk perceptions. Studies in technology acceptance also consider the health
risks posed by mobile phone usage when measuring perceived risk (Luo et al 2010). Consumer welfare studies on food safety treat perceived risk as negative outcomes to the physical self as a result of consuming hazardous food (Mitchell & Greatorex 1989; Tuu & Olsen 2009). Climate change studies also show that perceived risk is a high predictor of action and a motivator for behavioural change (Brouwer et al 2008; Aitken et al 2011). This study underlines the health threats caused by environmental degradation to align the green advertisement with consumer needs and wants (Ginsberg & Bloom 2004). Therefore perceived risk is treated as a physical health threat caused by non-green products.

In health communication research, perceived risk is typically conceptualized as perceived severity (seriousness of the risk or threat) and perceived susceptibility / vulnerability (likelihood or probability of being affected by the threat) to the threat (Maddux & Rogers 1983; Janz & Becker 1984; Witte 1992). These studies characteristically present the cause of the threat and recommended behaviour that helps to avoid the physical threat. For example, smoking cessation (van ’t Riet et al 2008) or periodic self-examinations (Meyerowitz & Chaiken 1987) can be the recommended behaviour to prevent the threat of cancer. Health communication messages typically use fear appeals to underscore the threat.

2.3 FEAR APPEALS

Appeals that promote fear arousal in persuasive messages are referred as fear appeals (Leventhal 1971). Fear motivates learning and therefore can be used for ensuring that the recipient systematically processes a message (Maddux & Rogers 1983). It should also be noted that extreme levels of fear do not motivate people and contrastingly low levels of fear do not increase elaboration. Very high levels of fear interfere with the elaboration as the focus is on the harmful effects rather than the recommended action (Keller
Fear appeals work better when they depict a relevant threat and highlight strategies to reduce the threat. Therefore, health communication uses strong fear appeals coupled with high efficacy recommendations (strategies that avert the threat) as they work better than other combinations (Witte & Allen 2000).

Fear appeal has also been examined in environmental communication studies. Hine & Gifford (1991) determined that irrespective of environmental concern, fear motivated people to act on anti-pollution messages. Moderate levels of fear worked well in promoting recycling (Burn & Oskamp 1986) and saving energy (Meijnders et al 2001). Carmi (2012) also shows that unless the level of personal threat associated with environmental problems is highlighted, people may not engage in environmentally-friendly behaviour. This is in line with the recent arguments by other researchers in the climate change communication domain who find that personal relevance is more successful in engaging an audience when compared to expositions on environmental degradation and environmental benefits (Myers et al 2012).

The protection motivation theory – a framework for using fear appeals in health messages is used for the research as it lends itself suitably for promoting healthy lifestyle behaviours (Cox et al 2004). Various other psychosocial models are used in health communication research to encourage healthy behaviour. The Theory of Planned Behaviour (Ajzen 1991) and Theory of Reasoned Action (Fishbein & Ajzen 1980) however include social influence process components. The Health Belief Model (Strecher et al 1998) is known to have low predictive validity (Harrison et al 1992). The Extended Parallel Process Model is another comprehensive model that combines protection motivation components with other defensive motivation components (Witte 1992). However this is an extended model and the PMT
is more suited for investigating health related behaviour in the marketing context.

### 2.3.1 Protection Motivation Theory

Protection motivation theory, henceforth referred to as PMT was proposed by Rogers (1975) to clarify fear appeals. He further revised this theory (Maddux & Rogers 1983) and treated it as a model for disease prevention and health promotion (Floyd et al 2000). Unlike previous drive and parallel response models of fear which were concerned with the affective component of the fear appeal, PMT is focused on the cognitive processes that make the fear appeal effective (Witte 1992). PMT is based on the assumption that an individual will focus on preventive behaviour when he perceives a severe and personally relevant threat and also believes that he is capable of responding in a manner that reduces the threat (Maddux & Rogers 1983). The PMT is therefore treated as a model of decision making relating to threats although originally developed as an extension of fear-appeal research (Milne 2002). Figure 2.2 shows the model.

![Figure 2.2 Overall model of protection motivation theory](Source: Rogers 1983)

According to PMT an individual evaluates options to reduce risk/threat using two processes (Maddux & Rogers 1983; Boer & Seydel
PMT posits that adaptive and maladaptive coping with a health threat depends on two cognitive mediating processes namely the threat appraisal process and the coping appraisal process. The sources of information to initiate the appraisal processes can either be environmental or intrapersonal. Environmental persuasion includes verbal persuasion or observational learning. Usually advertisements and tailored message are used as verbal persuasion (Boer & Seydel 1996; Glendon & Walker 2013). Intrapersonal variables include personality variables and feedback derived from previous experiences (Scarpa & Thiene 2011).

The resulting responses on the completion of the appraisal process are categorised as adaptive responses or maladaptive responses. Adaptive responses refer to actions chosen to minimise the threat and maladaptive responses are chosen to ignore the threat (Rippetoe & Rogers 1987). If the threat appraisal process finds the threat relevant, then the probability of choosing a maladaptive response (ignoring option to protect self/others) decreases and vice versa (Rogers & Prentice-Dunn 1997; Floyd et al 2000). Table 2.3 illustrates the components of the PMT process.

Table 2.3 Components of the Protection motivation model: adapted from Neuwirth et al (2000)

<table>
<thead>
<tr>
<th>A person’s likelihood of performing a preventive behaviour is</th>
<th>Increased by</th>
<th>Decreased by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat appraisal process</td>
<td>Perceived severity of threat</td>
<td>Extrinsic rewards (e.g., social approval) for current behaviour</td>
</tr>
<tr>
<td></td>
<td>Perceived vulnerability of threat (threat likelihood)</td>
<td>Intrinsic rewards (e.g., pleasure) for current behaviour</td>
</tr>
</tbody>
</table>
Table 2.3 (Continued)

<table>
<thead>
<tr>
<th>Increased by</th>
<th>Decreased by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coping appraisal process</td>
<td>Response costs (e.g., cost, time, effort)</td>
</tr>
<tr>
<td></td>
<td>Self efficacy (perceived ability to perform adaptive behaviour)</td>
</tr>
<tr>
<td></td>
<td>Response efficacy (perceived adequacy of preventive behaviour)</td>
</tr>
</tbody>
</table>

2.3.1.1 Threat appraisal components

The three components of the threat appraisal process are:

- Perceived severity
- Perceived vulnerability / susceptibility
- Perceived intrinsic and extrinsic rewards for not performing the behaviour

Perceived severity is a construct that is used in most health communication models and fear theories. It refers to the perception of the intensity of the threat or the degree to which the threat is treated as serious. Other than the PMT, the Health Belief Model (Strecher et al 1998), parallel response model (Leventhal 1971) and the Extended Parallel Process Model (EPPM) (Witte 1992) include perceived severity as the concept that defines the magnitude of the threat perceived. For instance, to reduce smoking, the consequences of smoking should be perceived as severe by the individual. Perceived vulnerability or perceived susceptibility refers to the individual’s perception of the likelihood of being affected by the threat. Perceived vulnerability is also a part of the other health models. In PMT, both these
concepts combine to form the threat appraisal. If both these components are judged sufficiently high then the probability of a maladaptive response (avoiding the threat) is reduced and coping appraisal is initiated. On the other hand if the rewards of the maladaptive responses (e.g. saving time by not performing the recommended behaviour) are judged to be advantageous, then the probability of the maladaptive response is high. Fear arousal is indirectly responsible for enhancing protection motivation (Rogers & Prentice-Dunn 1997; Boer & Seydel 1996).

2.3.1.2 Coping appraisal components

The PMT model initially included only response efficacy as a coping appraisal component. The revised modes (Rogers 1983) additionally included two more components: self-efficacy and response costs. The revised PMT model therefore consists of three components of the coping appraisal process:

- Response efficacy
- Self Efficacy and
- Response costs

Response efficacy refers to an individual’s belief that the recommended response effectively reduces threat (Rogers 1983; Witte 1992). For example, a recommended response could be that quitting smoking would ensure longevity (Maddux & Rogers 1983) or regular exercise would reduce the risk of cancer (Courneya & Hellsten 2001). Self efficacy is concerned with the individual’s belief in his capability in performing the recommended response. Rogers adapted this component from Bandura’s social cognition theory (Bandura 1977). Self-efficacy can be treated as “perceived operative capability” - meaning that the individual can execute the recommended action
with his existing resources (Bandura 2007). The recommended response can be following a regular regimen of exercise (Wurtele & Maddux 1987), quitting smoking (Pechmann et al 2003) or choosing organic food (Scarpa & Thiene 2011). Response costs refer to the individual’s perception of the costs involved in performing the recommended action. Response cost can involve monetary costs or non-monetary costs like time, effort to be expended or the inconvenience of performing the recommended action (Glendon & Walker 2013). Response cost is more relevant when other behavioural intentions like quitting smoking or exercising are measured as they involve significant efforts regarding time and money. Certain recent studies adopting PMT have ignored this variable (Cauberghe et al 2009).

The outcome of the threat and coping appraisal process is “protection motivation” which is equivalent to an intention (Milne et al 2000) or the decision to follow or avoid the recommended responses (Floyd et al 2000). PMT is used in a wide variety of health interventions like exercise promotion (Wurtele & Maddux 1987; Milne et al 2002), smoking reduction (Pechmann et al 2003), and cancer prevention (Courneya & Hellsten 2001).

However, PMT is not restricted to health communication studies only and is applied in diverse domains as the risk or threat can be visualised in different forms. For instance, PMT is widely used since early 2000 in the information security domain. Encouraging information security behaviour (Johnston & Warkentin 2010; Ifinedo 2012), adoption of anti-plagiarism software by faculty members (Lee 2011), are some applications of this framework in this domain. PMT also has a history of being used in promoting pro-environmental behaviour like energy conservation (Hass et al 1975) and water conservation (Kantola et al 1983). It is also finding a growing acceptance in recent environmental communication research. Nelson et al (2011) propose that protection motivation theory is ideal for developing water
conservation messages. Mankad et al (2013) use it to predict motivation to adopt rain water tank among urban households. Climate change communication studies also propose PMT as a suitable framework for engaging the public (Cismaru et al 2011; Kim et al 2012). It has been found suitable in promoting consumer awareness on environmental threats like green house gas emissions (Horng 2013). Thus there is a growing interest in using the PMT in environmental communication studies.

2.3.1.3 Source of information

The source of information for the PMT framework is usually a framed message. Some studies vary threat levels (intensity of the threat) to initiate the threat appraisal process (Witte & Allen 2000; McKay et al 2004; deHoog et al 2005; Cauberghe et al 2009). Message framing has also been used widely to “frame” threat appeals to promote persuasion in a number of studies (Rothman & Salovey 1997). Goal message framing and temporal framing have been successfully used in health studies (Meyerowitz & Chaiken 1987; Chandran & Menon 2004).

2.4 GOAL FRraming

Studies in human decision making have concluded that people make different decisions to solve a problem when it is “framed” or described in different ways. It was found that when information is presented in a “gain frame” (highlighting the benefits of the choice) people were risk averse – meaning they preferred an option that ensured a certain outcome whereas they were risk prone when the choice was presented in a loss frame (“highlighting the loss”) – that is they preferred to pick an option which did not ensure a certain outcome (Kahneman & Tversky 1979). Levin et al (1998) have delineated framing studies into three broad categories based on “what is
framed”, “what the frame presumably affects” and “how the phenomenon is measured”. Table 2.4 shows this classification.

Risky choice framing presents a “sure thing” option and a “risky option” in both the gain and loss frames. Typical example is the Asian flu problems which frames choice as the “number of lives lost” or “number of lives saved” in both the gain and loss scenarios (Kahneman & Tversky 1979). In this example people are asked to imagine a disease outbreak and are presented with two adoption options (Option A and Option B) for each of the frames.

Table 2.4 Methodological differences in risky choice, attribute and goal consequence framing

<table>
<thead>
<tr>
<th>Frame type</th>
<th>What is framed</th>
<th>What is affected</th>
<th>How effect is measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risky choice</td>
<td>Set of options with different risk levels</td>
<td>Risk preference</td>
<td>Comparison of choice for risky options</td>
</tr>
<tr>
<td>Attribute object</td>
<td>Object/event attributes or characteristic</td>
<td>Item evaluation</td>
<td>Comparison of attractiveness ratings for the single item</td>
</tr>
<tr>
<td>Goal consequence</td>
<td>Consequence or implied goal of a behaviour</td>
<td>Impact of persuasion</td>
<td>Comparison of rate of adoption of the behaviour</td>
</tr>
</tbody>
</table>

(Source: Levin et al 1998)

In the gain framed options, Option A is presented as “lives saved” (the sure thing) and Option B is presented as “probability of lives saved or not saved” (risky option). In the loss frame, the same options are described as losses. Option A is presented as “lives lost” (the sure thing) and Option B is presented as “probability of lives lost or not lost” (risky option). Most researchers report that people prefer the sure option when the options are positively framed and prefer the risky option when the options are negatively
framed (Rothman & Salovey 1997). Attribute framing deals with a descriptive valence in both frames and this kind of framing does not necessarily represent any risks (Levin et al 1998). The example for this kind of framing is options presented as a choice between “75% lean” and “25% fat” (Levin et al 1988). Another example is presenting price options as “discounts” or “free gifts” (Darke & Chung 2005).

Goal framing is popular in persuasive communication and stresses the positive consequences of performing an act or the negative consequences of not performing the act (Levin et al 1998). It is also widely used in health communication (Krishnamurthy et al 2001). For example, self examination (Meyerowitz & Chaiken 1987), mammography utilisation (Banks et al 1995; Schneider et al 2001), exercise promotion (Mccall & Ginis 2007) and oral health promotion (Rothman et al 1999; Mann et al 2004) studies use goal framing. In recent years, it is also used in the promotion of pro-environmental behaviour (Lindenberg & Steg 2007; Avineri & Owen 2013). The manipulation in goal framing is shown in Figure 2.3.

![Figure 2.3 Goal framing paradigm](Source: Levin et al 1998)
2.4.1 Goal Framing in Health Communication

Framing goal consequences seem to produce high persuasion in health communication (Levin et al 1998) especially while emphasizing the negative consequences of not following the recommended behaviour. For instance, such negatively framed messages elicit more favourable responses towards preventive screening for cancer risks (Meyerowitz & Chaiken 1987; Cox & Cox 2001). Banks et al (1995) and Schneider et al (2001) report that negatively framed messages were more successful in advocating screening behaviour such as prevention of cancer. However various other studies show that positively framed messages can also elicit recommended responses (Rothman et al 1993) and are persuasive for both prevention and detection health care products (Chang 2007).

Rothman et al (2006) argue that this inconsistency could occur because there is a difference in risk perception in “health-affirming/preventive” behaviour and “illness-detection/screening” behaviour. Risk of the consequence is perceived as low in the case of preventive behaviour when compared to screening behaviour. For instance, preventive behaviour like sunscreen usage is comparatively considered less risky than a screening behaviour like mammography. Therefore based on prospect theory, this implies that gain frames are suitable in low risk situations and loss frames are suitable in advocating high risk screening behaviour. O’Keefe & Jensen (2009) show that loss-framed messages were statistically significant in a small way over gain framed messages in persuasion related to detection / screening behaviour. In another meta-analytic review, Gallagher & Updegraff (2012) found that gain frames are more successful in promoting preventive behaviour in health communication studies.
Certain other researchers show that systematic processing or heuristic processing of the messages influences the persuasion induced by framing (Meyers-Levy & Maheswaran 2004). Issue involvement or personal relevance is therefore a factor that influences framing and highly involved people are influenced by loss-framed messages (Maheswaran & Meyers-Levy 1990). Under low self-efficacy conditions, subjects processed messages in an in-depth manner and subsequently negative frames were more persuasive (Block & Keller 1995). Another study by van’t Riet et al (2010) also showed that subjects under high self-efficacy conditions responded better to loss framed messages. Loss framed messages when combined with a fear condition were effective when encouraging subjects to take up a healthy behaviour (Gerend & Manner 2011).

Goal framing is also useful in the promotion of pro-environmental behaviour as multiple barriers and motivations exist across situations and individuals (Lindenberg & Steg 2007). Goal framing is therefore suitable for encouraging pro-environmental behaviour as framing intrinsic goals related to health and well being provides motivation for behavioural changes (Pelletier & Sharp 2008).

2.5 TEMPORAL FRAMING

Construal Level Theory posits that there is a relationship between psychological distance and the extent to which people think about objects (e.g. events, attributes). Psychological distance can be either based on time, space or social distance and distal objects are seen in an abstract manner (Trope & Liberman 2003). For example, financial savings that are realised in the near future are more attractive than future earnings at a distant time for some people (Ülkümen & Cheema 2011). Climate change problems occurring in a distant place is perceived as less relevant (O’Neill & Nicholson-Cole 2009) when compared to local problems.
Health threats that are closer in time elicit higher levels of perceived risk and stronger intentions to perform the recommended behaviour (Chandran & Menon 2004). Lo et al (2012) have shown the effect of used temporal framing on people’s intention towards healthy eating. However, other research shows that people differ in their perception based on their temporal orientation and therefore respond differently to temporal framing.

2.5.1 Temporal Orientation and Framing

Individual perceive and use time in different ways and temporal orientation refers to the way people engage in thinking about the past, present and future (Martin et al 2009). Time or temporal orientation has been measured in literature by either the ZTPI (Zimbardo & Boyd 1999) scale, consideration for future consequences scale (CFC) (Strathman et al 1994) or the elaboration on potential outcomes scale (Nenkov et al 2008).

CFC scale is widely used in environmental behaviour and health communication in recent studies. Individual differences in the CFC are defined as “the extent to which people consider the potential distant outcomes of their current behaviours and the extent to which they are influenced by these potential outcomes” (Strathman et al 1994). Low CFC score indicate an importance to immediate consequences and high CFC scores indicate an importance to future consequences. Future-oriented individuals are more concerned about the environment (Strathman et al 1994; Joireman et al 2004; Corral-Verdugo et al 2006) and future-orientation seems to have a small but significant effect on environmental attitudes (Milfont et al 2012). Carmi (2012) explored the effects of future orientation in two different contexts (health and the environment) and found that future orientation correlated positively with health concerns.
2.6 RESEARCH GAPS AND PROPOSED AREAS OF RESEARCH

Green advertising has focused on capturing the attention of only the green consumer despite researchers pointing out that this would amount to green marketing myopia (Ginsberg & Bloom 2004). Therefore green marketing has to learn from general marketing and target consumers based on their needs and aspirations (Rex & Baumann 2007).

Enduring involvement with the environment does not always translate to purchase intentions or behaviour (Newell et al 1998; Bamberg 2003; Fujii 2006) and can be reported as a socially desirable response (Bord et al 1998; Ewert & Baker 2001; Ewert & Galloway 2009). Irrespective of enduring involvement with the environment, situational involvement can create high involvement with the green advertising message (Celsi & Olson 1988; Laczniak et al 1999). Environmental knowledge is another variable that may impact responses to green advertising. Objective environmental knowledge is considered in this research as review shows its influence on purchase intentions (Paladino & Ng 2013).

Irrespective of enduring involvement with the environment, situational involvement can create high involvement with the green advertising message (Celsi & Olson 1988; Laczniak et al 1999). Perceived risk is an important antecedent of situational involvement (Kapferer & Laurent 1993; Beatty et al 1988; Mitchell 1999; Dholakia 2001). Therefore this research proposes to use perceived risk as an antecedent to message involvement which is a specific case of situational involvement (Baker & Lutz 2000).

Literature has shown that fear promotes learning in the presence of efficacy elements by increasing systematic processing of the message, thus increasing elaboration (Rogers 1975; Maddux & Rogers 1983; Block &
Keller 1995; Rogers & Prentice-Dunn 1997; Witte & Allen 2000) and acceptance of recommended behaviour (Milne et al 2002; Pechmann et al 2003; Cismaru et al 2011; Kim et al 2012; Horng 2013). This research proposes to add to this line of thought and uses fear appeal to emphasize health threats caused by environmental degradation. The protection motivation framework is commonly used in health communication literature to induce fear arousal and subsequent motivation to follow recommended intentions by presenting cognitive threats. The effect of the various PMT variables on attitudes and intentions is mediated by message involvement (Caubergh et al 2009). Therefore this model was chosen for research. It is proposed to use framing for this research as framing can be used as the source of information to activate PMT variables. Temporal framing and goal framing are widely used in health communication research to bring about fear arousal. Consideration for future consequences is a potential moderator of the effect of temporal framing.

Therefore enduring involvement with the environment (environmental concern), message involvement, variables in the PMT framework, environmental knowledge, message framing and CFC were chosen to develop a conceptual model for this research. Additionally, the review also indicated lack of studies on green advertising in the Indian context. Hence it was proposed to investigate the current state of green advertising in India using content analysis.