



IS SOCIAL PSYCHOLOGICAL MODEL SUFFICIENT: EMPIRICAL RESEARCH GAPS FOR UNDERSTANDING GREEN CONSUMER ATTITUDINAL BEHAVIOUR

Rohini Samarasinghe*

Abstract: *Many theoretical models and frameworks have been developed to explain the gap between consumer's environmental awareness, knowledge, attitudes and behaviour. These models explain the intent and impact on the antecedents (e.g., Value, Beliefs/Attitudes, and Norms) of green consumer behavioural intention and actual green consumer behaviour. All the models explain in this study have some validity in certain circumstances. However, most of the study findings have been inconclusive and no definitive explanation of them. This study aims to describe and analysis the main characteristics of key social psychological attitudinal-behavioural models on green marketing literature and determine the empirical research gap in current issues of green consumer research, specially to improve our understanding of the subject. Therefore, this study referred more than 40 articles & some books on green behaviour which were focusing on attitude-behaviour models and frameworks. The results will help to determine new consumer behaviour multifaceted areas for marketing researchers.*

Keywords: *Green Consumer Behaviour, Attitudes-Behaviour Gap, Green Marketing, Social Psychological Models*

*Head dept. of marketing management, University of Sri Jayewardenepura, Sri lanka



1. INTRODUCTION

Today environmental concern has become stronger and a major passion that has connected about the relationships among human/consumer behaviour, marketing and the natural environment. This has seen an increase in research focuses on natural environmental orientation (NEO) incorporating consumers' environmental values, attitudes and environmental friendly (green) behavioural (e.g. human/personal goal of protecting the environment) intention in the field of green marketing to adopt new sustainability marketing practices. Green consumer behaviour in numerous studies interchangeably uses the environmentally significant behaviour, ecological conscious consumer behaviour and pro-environmental behaviour. Thus, green consumer behaviour simply means the behaviour that consciously seeks to purchase green products and minimize the negative impact of person's actions on the natural world, i.e., reduce pollution, minimize energy and resources, and use recyclable packaging.

Theory of green/environmental behaviour would benefit greatly from more precise socio-psychological models and over the last 50 years many socio-psychologists have studied the roots of direct and indirect environmental behaviour. They have tried to find the answer for "why do people act environmentally? What are the barriers/gaps to pro-environmental behaviour and how to overcome the gap and barriers for green behaviour? When and where consumers act environmentally? In an attempt to answer these practical issues, researchers have developed and empirically validated numerous theoretical frameworks that explain reasons behind the gap between people's attitudes and behaviour. In order to explain this Attitude–Behaviour Gap (Blake (1999) call this as the *Value – Action* Gap) researchers have used multi faceted approaches. The following section illustrates different theories and theoretical models that were developed to explain the link between attitudes and behaviour in relation to general consumer behaviours as well as green consumer behaviour.

Consumer behaviour is a sub section of larger context of human behaviour, the way consumers/individuals buy their own and household purposes. Understanding consumer behaviour is complex, e.g., what, when, why, how, where does consumer buy? Kotler (2000) suggests 'seven Os' to understand consumer buying complexity. In this aspect, consumer



behaviour is related to psychology which studies consumers/individuals cognitive behaviour. It is the study of how individuals, groups, and organizations select, buy, use and dispose of goods, services, ideas or experiences to satisfy their needs and wants. This is also called consumer psychology for understanding the consumer behaviour of environmental stimuli entre the consumer' consciousness (Cognitive) and a set of psychological processes (e.g. motivation, beliefs/perception, learning, and memory) combine with certain consumer characteristics to results in decision processes. Thus, psychologists more focus on internal/personal factors such as personality traits and value, beliefs, norms toward attitudes and the consumer behaviour.

In this context, consumer research on marketing and psychologists have focused mainly on green behaviours based on the individual's decision of purchase, use and disposal of personal and household products that have environmental impact. It is useful to understand these according to the types of decisions they involve: household waste disposal and green consumerism (e.g., purchasing re-cycled products, buying organic and healthy foods), the purchase, use and maintain of goods and services that have less environmental impact (e.g., energy, automobile, recreational travel, home heating & cooling systems).

On the same time, consumer behaviour is related to sociology focusing on group factors such as social and cultural values, e.g., cultural traditions, family customs, social groups, social institutions beliefs & norms. In line with this, social psychologists study how social influence, social perception and social interaction influence individual and group behaviour. Further, Social psychology is a branch of psychology which studies individuals in the social context and it is the study of how and why people think (cognitive), feel (affective), and do (conative/behaviour) depending upon the situation where they live. According to the Allport (1985) social psychology is a discipline that use scientific methods to understand and explain how the thought, feeling and behaviour of individuals are influenced by the actual, imagined or implied presence of other human beings. Social psychology research has important to study how people/consumers act in certain situations, e.g., why people/consumers are change decision when in actual purchase situation. Social psychology can't explain all of human social problems but it can explain different ways to a social phenomenon.



However, it is worth taking into account that green consumer behaviour differs from general consumer behaviour in the level of commitment, which is an expression of taking an ideological standpoint on consumption (Stern 2000). General consumer behaviour are most probably look at personal benefits and costs while green consumer behaviour is unlikely to deliver instant personal benefits or pleasure, but rather a future oriented outcomes (e.g., a cleaner environment) that often benefits society as a whole (McCarthy and Shrum, 2001). In this study purchasing behaviour has been defined in terms of ethical or green consumerist aspects. That means the consumer concerns/attitudes regarding the environmental issues while purchasing their products and minimizes the negative impact of person's actions on the natural world.

This study is focused on some key theoretical frameworks/models and empirical findings of social and psychological aspects of green consumer behaviour and identify new green marketing research gap based on literature survey. The rational of this is most of the marketing researchers borrow theories and concept from market anthropology, psychology and sociology for studying consumer behaviour as sub discipline of border human behaviour. Thus, this paper includes the following major sections; first it briefly defines the green consumer and green consumer behaviour. Next, it sets the theoretical background with review of key social psychological frameworks. The final section develops new/ extended study frameworks for the future marketing studies.

2. GREEN CONSUMER

Simply, the green consumer is a person who seeks out environmentally friendly products to buy. In the existing literature, a green consumer is often defined as a person who shows a form of "pro-social" consumer behaviour (Wiener and Doeshner, 1991) or is an "environmentally conscious consumer" (Schwepker and Cornwell, 1991; Bohlen *et al.*, 1993) or shows "pro-environmental" purchasing behaviour (Schlegelmilch *et al.*, 1996). This is basically people whose behaviour reflects a relatively consistent and conscious concern for the environmentally friendly purchase, use or disposal of particular products. Webster (1975) defined a socially conscious consumer (green consumer) as a consumer who takes into account the public consequences of his/her private consumption or who attempts to use his/her purchasing power



to bring about social changes, i.e., consumers incorporate social/environmental issues (e.g.; an individual concerned about the amount of garbage generated) into their purchase decisions by evaluating the environmental consequences (e.g., could consider the recyclable packaging) associated with the purchase of a product. Basically, these products are not only satisfy a consumer's instant needs and wants, but also serve to benefit to the environment in the long run. Further, Strong (1996, P.5) green consumers are "those who avoid products that are likely to endanger the health of the consumers or others; cause significant damage to the environment during manufacture, use or disposal; consume a disproportionate amount of energy; cause unnecessary waste; use material derived from threatened species or the environment. In line with the above definitions, it can be concluded that the green consumer is as "consumers who purchase, use, disposal products and services which they perceive to have a positive impact on the environment or pro-environmental attitudes.

In late 1980s, increasing number of consumers described themselves as environmentalists (Fisher, 1990) and similarly consumers started to become more environmentally concerned consumers. In 1991, Gutted's American public survey indicates that 80% of respondents identified themselves as "environmentalist." This indicates that consumer's self reported responses have strong commitment to the environmental but actual behaviour does not seem to be effectively translated into environmental action. For example, Starch (1996) indicates that the total number of green consumers was 15 percent and environmental studies have been conducted in the Western & developed societies than other part of the world.

Information on the green consumer demand reported in the literature shows that Adolescents in Hong Kong displayed a quite promising market opportunity for green products (Lee, 2008). Wanninayaka & Randiwela, (2008) mentioned that most of the Sri Lankan consumers' have substantial awareness of green products, however, some respondents believe that technical descriptions and some information are difficult to understand. Further, 37% of consumers above 45 years have less environmental knowledge but would have intention to pay more for green products and can be targeted as emerging green consumers in Sri Lanka (Samarasinghe,



2012). However, no such empirical research has been undertaken in Asia including Sri Lanka in this regard.

From the 1990s consumers started to become more environmentally concerned consumers however, this percentage almost remains the same today at between 15%-20% (Grankvist *et al.*, 2007) and sales of the environmentally friendly products have not reflected progressive level of concern (Kilbourne & Pickett, 2008) and attitude-behaviour (value-action) gap still exists (Olson & Zanna, 1993; Nourdlund & Garvill, 2002; Garling *et al.* 2003, Mostafa, 2007; Barker & Ozaki, 2008; Jansson, Marell, & Nourdlund, 2010; Kim & Chung, 2011). This gap refers to the fact that environmentally concerned consumers do not seem to show consistent preferences for green products in their purchasing behaviour (Kilbourne & Pickett, 2008) and also weaker relationships than expected. In fact, the outcomes of the consumer value-attitude-behaviour relationships have been controversial. Therefore, this raises the puzzle whether there are undiscovered factors that influence the attitudes and behaviour in relation to green consumer behaviour.

3. GREEN CONSUMER ATTITUDINAL BEHAVIOUR

In literature, environmentally conscious consumers and their behaviour have grown over the past decades with more empirical research studies conducted on the subject until now. This research followed two major streams, which are relating to ***micro marketing issues and macro marketing issues***. The first stream of studies is on micro-marketing issues relating to consumer interest and awareness of environmental problems. Researchers in this area sought to define and describe the nature of green consumers and try to segments them using different variables and classifications. These studies focused on assessing the role of demographic, psychographic, behavioural and general environmental concern and other factors in segmenting the market and sketching the profile of green consumers.

The second research stream deals with macro- marketing (social marketing) issues relating to green consumer attitudes and behaviour. This emphasis is on the role of macro environment (e.g. socio-economic, political & legal, culture, technological) in influencing individuals and society's value and beliefs (Stern *et al.* 1995). These in turn are considered important in shaping



environmental attitudinal factors (e.g. values, beliefs, and norms), forming behavioural intentions and affecting individual/consumer actions (Kilbourne & Beckmann 1998; Stern 2000). Thus, this research stream concentrates on psychological, cultural, societal, and other parameters acting as predictors of consumer's green behaviour. Some of the measures employed were; personal values, such as security, fun/enjoyment, and self gratification (Jansson et al.2010); human values such as egoistic, social altruistic, and biospheric (Stern et al. 1995, Stern 200); societal factors such as liberalism and social altruism (Starughan & Roberts, 1999); cultural orientations such as collectivism and individualism (McCarthy & Shrum, 2001). Although these parameters attempt to discover the macro factors leading to environmental-friendly attitudinal behaviour with consumption lifestyle they were often criticized as being difficult to measure and implement (Chan & Lue 2000; Kilbourne & Pickett, 2008) and contradicting and inconclusive findings.

It is evident that in the empirical world, people encounter personal, social, cultural, political and ethical dilemma in their day to day behavioural choices. Both marketing researchers & social psychologists have explored the antecedents and outcomes of consumer environmentally friendly attitudes and behaviour based on sustainable consumption paradigm. On the same line, in a consumption context, contemporary consumer encounters the same dilemma in green purchasing behaviour and general environmental behaviour. In order to explain this Attitude–Behaviour Gap (*Value – Action Gap*) researchers have used multi faceted approaches.

Theory of green/environmental behaviour would benefit greatly from more precise socio-psychological models and over the last 50 years many social-psychologists have studied the roots of direct and indirect environmental behaviour. They have tried to find the answer for “why do people act environmentally? What are the barriers/gaps to pro-environmental behaviour and how to overcome the gap and barriers for green behaviour?, when and where consumers act environmentally? . In an attempt to answer these practical issues, researchers have developed and empirically validated numerous theoretical frameworks that explain reasons behind the gap between people's attitudes and behaviour (values-actions). The following section illustrates different theories and theoretical models that were developed to



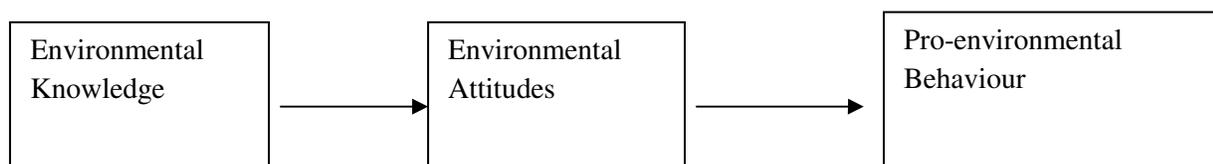
explain the link between attitudes and behaviour in relation to general consumer behaviours as well as green consumer behaviour.

4. GENERAL THEORETICAL MODELS/FRAWORKS OF GREEN BEHAVIOUR

Literature indicates that different motivational factors can form attitudes toward pro-environmental behaviour. Pro-environmental behaviour' means behaviour that consciously seeks to minimize the negative impact of individual's actions on the natural environment. Initially, people's environmental knowledge and concern are identified as guiding principles of individual's life that govern the pro-environmental behaviour (environmental friendly behaviour). Fayxell and Lo, (2003) define environmental knowledge as "a general knowledge of facts, concepts, and relationships concerning the natural environment and its ecosystems". Therefore, environmental knowledge evolve in two forms; one is that consumers have to be educated to understand the general impact of the environment and the other is consumer knowledge to behave in an environmental friendly way. In simple terms it means "what consumers know about the environment. Thus, knowledge works as attitudinal formation factor and attitude means that 'people who have strong positive pro-environmental feelings to engage in pro-environmental behaviour'. The behavioural literature argues presence of positive relationship between knowledge and pro-environmental behaviour (Chan & Lau, 2000).

The simplest models of pro-environmental behaviour were based on a liner progression of environmental knowledge leading to environmental attitudes (e.g., environmental awareness and concern) which lead to pro-environmental behaviour (see figure. 01).

Figure 1: Early US Linear Models of pro-environmental Behaviour



Source: Early model of pro-environmental behaviour, Burgess et al. (1998)

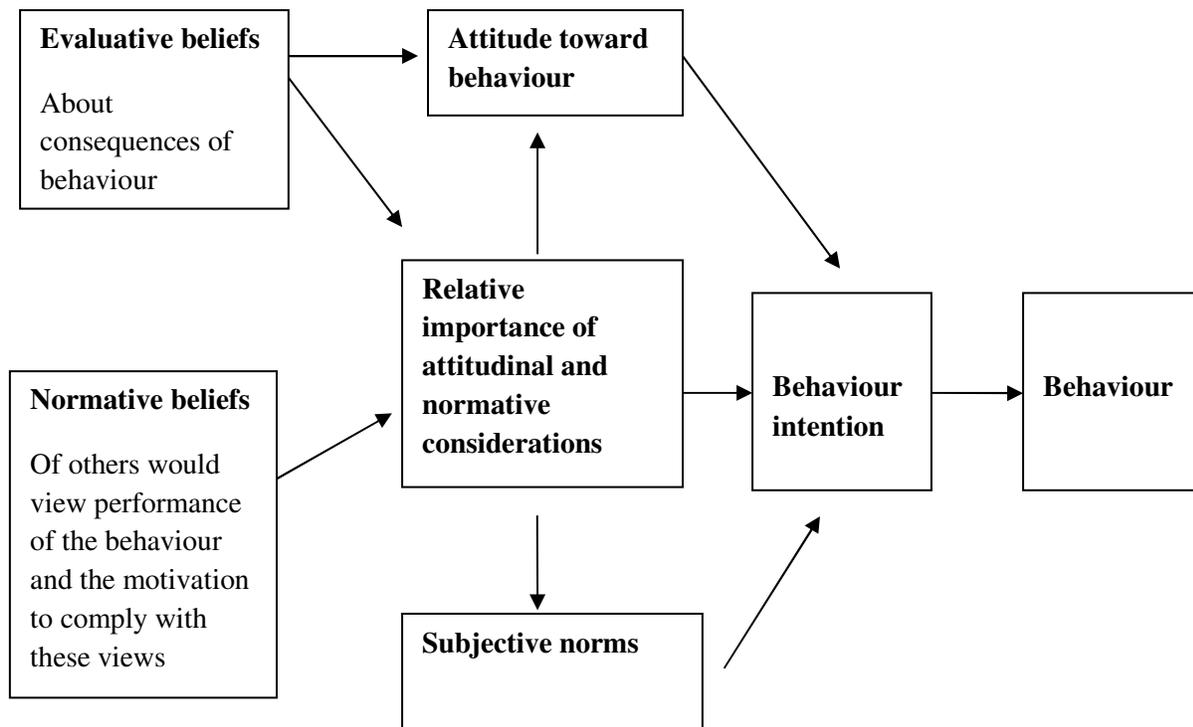
This model assumed that educating the people about environmental issues would automatically results in more pro-environmental behaviour. Research has found that environmentally



oriented consumers differed in consumers' eco-knowledge and understanding of it (Schuhwerk & Lefkoff-Hagius, 1995), consumers who are knowledgeable about the environmental problems can be motivated towards green purchase (Peattie, 1995) and Grunert (1993) has supported that indicating statistically significant positive association between knowledge and pro-environmental behaviour. Thus, knowledge on the environmental issues is the significant predictor of consumer behaviour to be responsible towards environment (Shellyana Junaedi, 2007) and tend to create awareness and positive attitudes towards green behaviour.

However, some researchers have been shown that increases in knowledge and awareness did not lead to pro-environmental behaviour and they noted that there are some discrepancies between attitudes and behaviour gap, e.g., people's experiences, cultural tradition and norms, research methodological problems etc. To minimize those discrepancies *Theory of Reasoned Action* –TRA (Ajzen & Fishbein, 1980) and *Theory of Planned Behaviour* – TPB (Ajzen, 1991; 1997) theoretical models/ frameworks were alternatively presented by researchers. These attitudinal and normative theories have determined that purchase intention is the most immediate relevant predictor of corresponding behaviour (see figure. 02). They argue that attitudes do not determine behaviour directly; rather they influence behavioural intentions which in turn shape human actions. Intentions are not only influenced by attitudes but also by social or normative pressures. Therefore, 'the ultimate determinants of any behaviour are the behavioural beliefs concerning its consequences and normative beliefs concerning the prescriptions of others' (Ajzen & Fishbein, 1980, p.239).

Figure 2: The theory of Reasoned Action (Ajzen & Fishbein, 1980)



Source: Ajzen & Fishbein, 1980

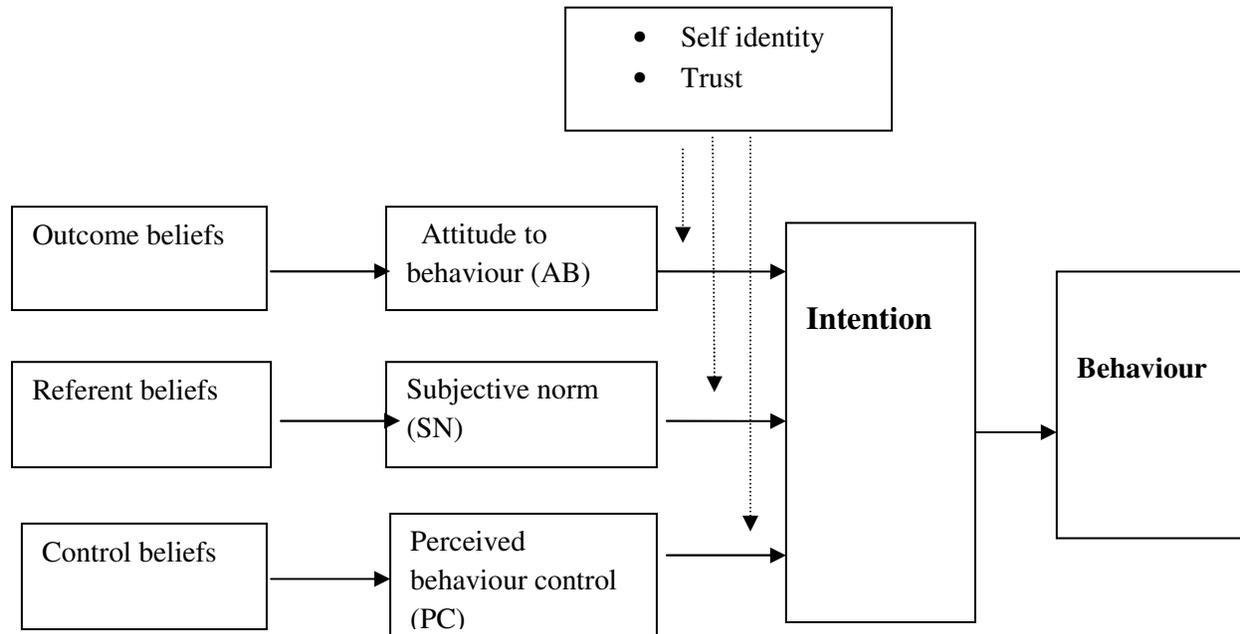
- **Theory of Planned Behaviour – TPB** (Ajzen, 1991)

Theory of Planned Behaviour, as advancement to the theory of reasoned Action, indicates that intentions towards an act are determined not only by attitudes and subjective norms but also perceived control, trust and self identity. Attitudes, in the TPB, include evaluative beliefs regarding certain behavioural outcomes and an estimation of the likelihood that these outcomes will occur. Subjective norms represent normative behavioural beliefs and the motivation to comply with these beliefs. Perceived behavioural control, which is people's confidence in their ability to engage in certain behaviour, together with the perception of the expectations of relevant others (e.g., subjective norms) and with the attitudes toward performing a particular act determine people's intention to perform that behaviour. Intention, in turn, is the ultimate predictor of behaviour (see figure - 3). Although, the TPB has successfully



explained the predicting behaviour, some theorists have been criticized that the TPB is neglecting moral consideration (Thogersen, 1996; Thogersen & Olander, 2002).

Figure 3: The Theory of Planned Behaviour



Source: Conceptual framework: theory of planned behaviour with application to predicting intention, Ajzen, (1991)

The above mentioned two theories have provided sound study frameworks specially addressing methodological issues of measurement discrepancies of attitudes – behaviour relationships (especially behavioural intention rather than actual behaviour) and many environmental influences that affect the behaviour.

These researchers pointed out that in order to find a correlation between attitudes and behavior the researcher has to measure the attitude towards that particular behavior, e.g., comparing attitudes toward climate change. However, they argue that it should have or not have correlation between the two variable and they noted that people are essentially rational and the decision that they ‘make systematic information available to them’ and are not

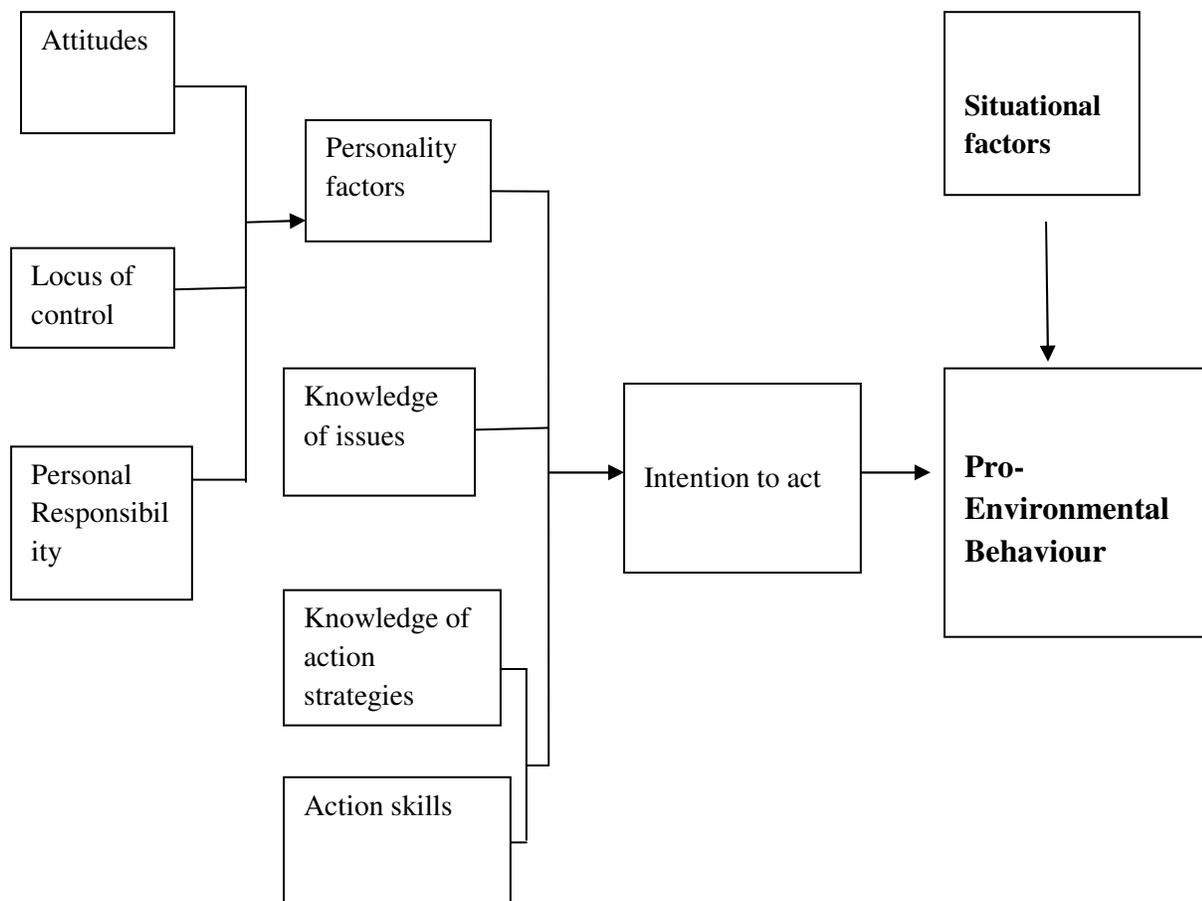


‘controlled by unconscious motives or overpowering desires’, is their behaviour ‘capricious or thoughtless’ (Ajzen & Fishbein, 1980).

- **Model of Responsible Environmental Behaviour** –Hines et al. (1986)

In 1986, Hines et al. developed their environment behaviour analysis model of Responsible Environmental Behaviour which was based on Ajzen & Fishbein’s (1980) Theory of Planned Behaviour (see figure 4). They did a meta-analysis of 128 pro-environmental behaviour research studies and found the variables associated with responsible pro-environmental behaviour. Although this model has highlighted as the more sophisticated model than Ajzen & Fishbein’s TPB (1980), the identified factors do not sufficiently empirically validated to explain pro-environmental behaviour.

Figure 4: The Model of Responsible Environmental Behaviour



Source: Models of predictors of environmental behavior, Hines et al. (1986)



As figure 4 shows, the more variables are associated with the pro-environmental behavior the identified factors do not sufficiently explain pro-environmental behavior, specially, weak relationship between intention and actual responsible behavior. There seem to be many more factors that influence the pro-environmental behavior and Hines et al. (1986) explained those under the situational factors such as economics constrains, social pressures, and opportunities to choose actual responses.

5. MODELS OF ALTRUISM AND PRO-SOCIAL BEHAVIOUR THEORIES

Models of altruism and pro-social behaviour are another framework for analysing pro-environmental behaviour. Eisenberg and Miller (1987) defined pro-social as 'voluntary intentional behaviour that results in benefits for others: the motive is unspecified and may be positive, negative or both. Thus, altruism is a subset of pro-social behaviour and some researchers have developed their models and assumptions based on theories of altruism claiming that altruism is as key feature for supporting pro-environmental behaviour. This theory has two assumptions;

- Person with a strong selfish and competitive orientation are less likely to act pro-environmental behaviour (Pro-self).
- People who have satisfied their personal needs are more likely to act pro-environmental behaviour because they have more resources (time money, energy) to care about bigger pro-environmental issues.

This socio-psychological research has investigated green consumer behaviour using the "Norm-Activation Theory of Altruistic Behaviour" (Schwartz, 1977), and "Value-Beliefs- Norm Theory - VBN Theory (Stern, 2000) "ABC (A= attitudes, B= behaviour, C= contextual factors) theory" (Guagnano et al. 1995).

1) ***"Norm-Activation Theory of Altruistic Behaviour"*** (Schwartz, 1977)

This introduces a universal value system (see Nature of human values of Rokeach, 1973 & Value theory of Schwartz, 1992) to analyse behaviour as a function of beliefs about the consequences of actions and norms about personal responsibility to undertake specific action in response. According to the norm activation theory, an important antecedent to pro-environmental



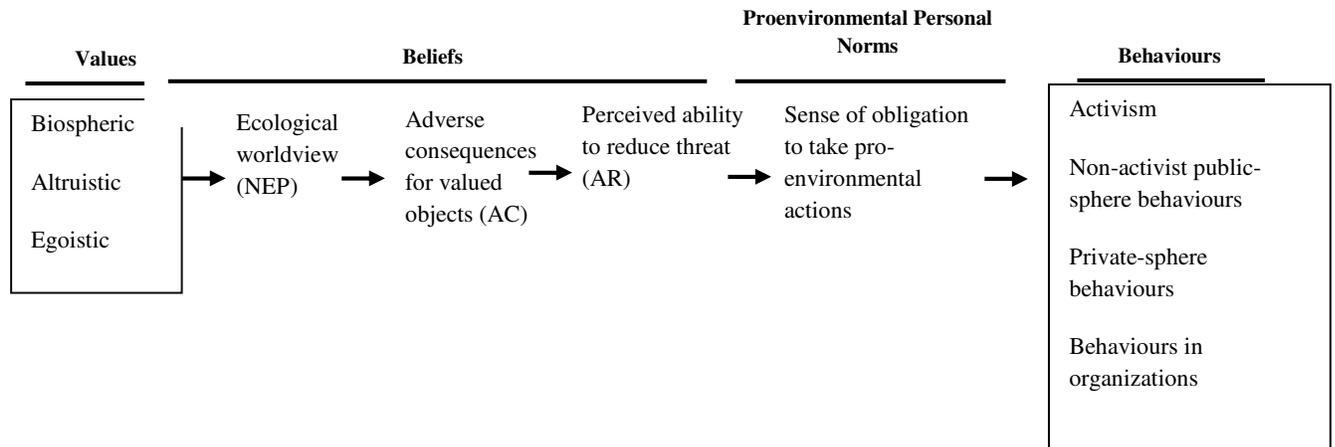
behaviour is the activation of a “*personal norm*”. This norms activation takes place when the individual perceives environmental condition that threaten the something the individual values for his/her well-being, other humans’ well-being and nature; that is, the individual is aware of environmental problems. Here the personal norms experienced as a moral obligation to act to protect whatever the threats derived from individual’s general and environmental values. Thus, theories explain that the individual’s general and environmental value orientations to influence the personal norms. And therefore he explained that personal norms (internalized moral) was an extended determinant in the theory of planned behaviour.

2) “**Value-Beliefs- Norm Theory - VBN Theory** (Stern, 2000)

Stern (2000) has suggested that a similar model that was an extension of Schwartz’s (1977) norm-activation theory. This value-belief-norm theory was originally an explanation of altruistic behaviour but specially has been extended to pro-environmental behaviour. Based on value theory (Schwartz, 1992), norm-activation theory (Schwartz, 1977), and the new ecological paradigm (NEP, Dunlap *et al.*, 2000), Stern (2000) argues that personal norms are a key determinant that bridges the value action gap as personal norms as a moral obligation go beyond the behavioural intention and activates the actual behaviour. With this argument, the study adopts human value orientations (e.g., the **egoistic** orientation concerned with the removal of suffering and harm from oneself, the **altruistic** as social orientation which is concerned with the removal of suffering of other people and the **biospheric** orientation is concerned with the removal of destructions and suffering in the non-human world) as a prerequisite for attitude formation and norms that determine actual behaviour (See Figure 5).



Figure – 5: A systematic presentation of variables in VBN Theory



In literature analysis seems to be the VBN theory is much more sophisticated theory to explain pro - environmental behaviour than the above elaborated all theories. De Groot & Steg L. (2008) supported this argument by providing value measures.

6. EVALUATION OF ATTITUDES-BEHAVIOUR THEORIES: COMMONALITIES, DIFFERENCES & OMISSIONS

Theory	Key Features & Arguments	Omissions
The Early US Linear Model	<ul style="list-style-type: none"> -Psychological perspective / individual's behaviour. - Model was developed to explain environmental attitude & behaviour. - Argue that attitudes directly lead to pro-environmental behaviour. - Individual's environmental knowledge form attitudes & attitudes as moderating/mediating variable for environmental behaviour. 	<ul style="list-style-type: none"> -less attention to sociology/social factors: social beliefs & norms, cultural traditions, family customs. - Information: not explained information as key feature to educate/knowledge the person & that can be changed people's attitudes. -Habits, experiences, and situational factors



<p>The theory of Reasoned Action(TRA)</p>	<p>-Social-psychological perspective / sociological and psychological factors to study human behaviour.</p> <p>-Assumed that humans are rational.</p> <p>-Common/general attitude-behaviour (A-B Model) model for consumer behaviour. Many environmental studies use to A-B study.</p> <p>-Argue that individual's attitudes do not directly lead to actual behaviour. intention.</p> <p>-Behavioural Intention is the most immediate predictor of corresponding behaviour.</p> <p>-TRA employs normative considerations: beliefs, subjective norms.</p> <p>- Beliefs form attitudes & attitudes as moderating/mediating variable for environmental behaviour.-</p>	<p>-Information.</p> <p>-Habits, experiences and situational factors.</p> <p>-less attention to social factors and neglecting moral considerations.</p>
<p>The theory of Planned Behaviour (TPB)</p>	<p>-Social-psychological perspective.</p> <p>-Assumed that humans are rational.</p> <p>- Common/general most influencing attitude-behaviour (A-B Model) model for consumer behaviour studies. Many environmental studies use to A-B study.</p> <p>-Behavioural Intention is the most immediate predictor of corresponding behaviour.</p> <p>-Attitudes explain as independent variable.</p> <p>-TPB includes extended variables as self identity, perceived control, & trust.</p>	<p>-Information.</p> <p>-Habits, experiences and situational factors.</p> <p>-less attention to social factors and neglecting moral considerations.</p>



<p>The model of Responsible Environmental Behaviour (MREB)</p>	<p>- Social-psychological perspective. Focus more on sociology</p> <p>-MREB is specific to analysis pro-environmental behaviour.</p> <p>-Argue relationships among knowledge to attitudes-attitudes to intention and intention to actual responsible behaviour.</p> <p>-MREB put situational factors (economic constraints, social pressures, opportunities to choose different actions) as new dimension of A-B model.</p>	<p>- Information.</p> <p>-Information.</p> <p>-Habits.</p>
<p>The Norm-Activation Theory (NAT)</p>	<p>-More on psychological perspective.</p> <p>-Attitudes & personality factors lead to pro- environmental behaviour.</p> <p>-an important antecedent to pro-environmental behaviour is the activation of a “personal norms.”</p>	<p>-Information.</p> <p>- Less attention to social beliefs & norms.</p> <p>-Habits, experiences and situational factors.</p>
<p>The Value-Beliefs-Norm Theory (VBN)</p>	<p>- More on psychological perspective.</p> <p>-Value orientations and personal norms are the antecedents of pro-environmental behaviour.</p> <p>-An important antecedent to pro-environmental behaviour is the activation of a “personal norms.” VBN is more focused on antecedents of attitudinal factors and personal capabilities.</p> <p>-Human values & Personal norms.</p> <p>-Personal moral norm is the most immediate predictor of corresponding actual behaviour.</p> <p>-beliefs moderate/mediate the</p>	<p>Social beliefs.</p> <p>-Information</p> <p>-model is avoided to show various features of the broad social, cultural, economic, and legal contextual forces and habits & experiences.</p>



	relationship between the values and pro-environmental personal norms.	
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Source: Literature review 2011

7. EMPIRICAL RESEARCH GAPS IN LITERATURE

Although above mentioned theories attempt to explain the gap between consumer's attitudes and behaviour, still there is doubt about the different empirical domain that these attitudes do not results in actual behaviour. Bleak (1999) mentioned that three different barriers to act environmental friendly/green behaviour such as individual barriers (e.g. conflicting attitudes as lack of interest, lack of knowledge), individuals in social context barriers (e.g. lack of responsibility, locus of control), and social barriers (e.g. lack of time, money, information encouragement facilities in practically).

As such, building models/frameworks to understand consumer behaviour are sometime insufficient for understanding how consumers to change environmentally significant behaviours. In fact many other factors can interfere in this process; especially information, personal capabilities, habits & other contextual factors and social beliefs are incorporate to modify the green consumer behaviour/pro-environmental behaviour. In fact, this study identifies that the role of information is one of the key elements to impact this behaviour and the many social psychologists explain information is the key messenger to activate behaviour, but no one put information in their models or frameworks. E.g., the human/consumer decision that they 'make systematic information available to them' and are not 'controlled by unconscious motives or overpowering desires', is their behaviour 'capricious or thoughtless' (Ajzen & Fishbein, 1980). Stern et al. (1995; 1999) were also described the fact that information congruent with an individual's values and world view would be more likely to influence beliefs and attitudes. Although, these theorists highlight the importance of information for minimizing attitude-behaviour gap, they have not put information construct to build their theoretical models. Especially, here marketing information plays major role in avoiding lack of knowledge, and emotional blocking (e.g. fear, feeling) of green consumer behaviour. In fact, marketing



information together with knowledge, trust/credibility and emotional involvement make up environmental friendly attitudes which are change to green behaviour.

Thus, many marketing theories and empirical research findings have found that green marketing information has positive association between attitudes-behaviour. In literature, it is established that green information including advertising (Polonsky, 1994; Welford, 1995; Schuhwerk & Lefkoff-Hagius, 1995) and labelling (D'Souza, 2004; D'Souza et al., 2006, 2007; Carlson et al., 1993; Peattie 1999, 2001) positively affects purchase intention of buyers. Some studies have revealed that information can encourage people to make green product choices (Hartmann et al. (2005). Little research has notified that honesty and informative labelling may have significant effect on the consumer pro-ethical or pro-consumerist purchasing behaviour (Shaw et al. 2005; Dickson and Sawyer 1990), and further, environmentally friendly/significant behaviour may fail to lead pro-environmental action if they do not have proper information to educate the customers; environmental effects are unknown to the consumer (D'Souza *at el.*, 2007, Samarasinghe, 2011). In align with the above descriptions the study argues that individual's environmental values, beliefs with his/her environmental information affect pro-environmental behaviour and put green information as one of the major constructs beyond the social psychological (e.g. VBN model) constructs.

It can be concluded that though the social-psychologists argue that people's values affect their thoughts (cognitive) and feeling (affective) towards human/consumer behaviour, these do not always lead to real behaviour and the attitude-behaviour gap associate with various factors. Apart from that marketing theorists argue that proper information/communication can reduce or overcome this gap and the framework of such studies seems to be a response hierarchy or stage models (e.g., Hierarchy of effect model – James, 1979) of decision making comparable with cognitive, affective and behaviour). This behavioural outcome stages are followed by at least awareness- knowledge- trusting-deciding and buying which is where the real success of the advertising, labelling & packaging, word of mouth and other form of information on products. Therefore, the study besides human values, attitudes, and norms, marketing



information become a fundamental prerequisite for paying attention to the green consumer behaviour.

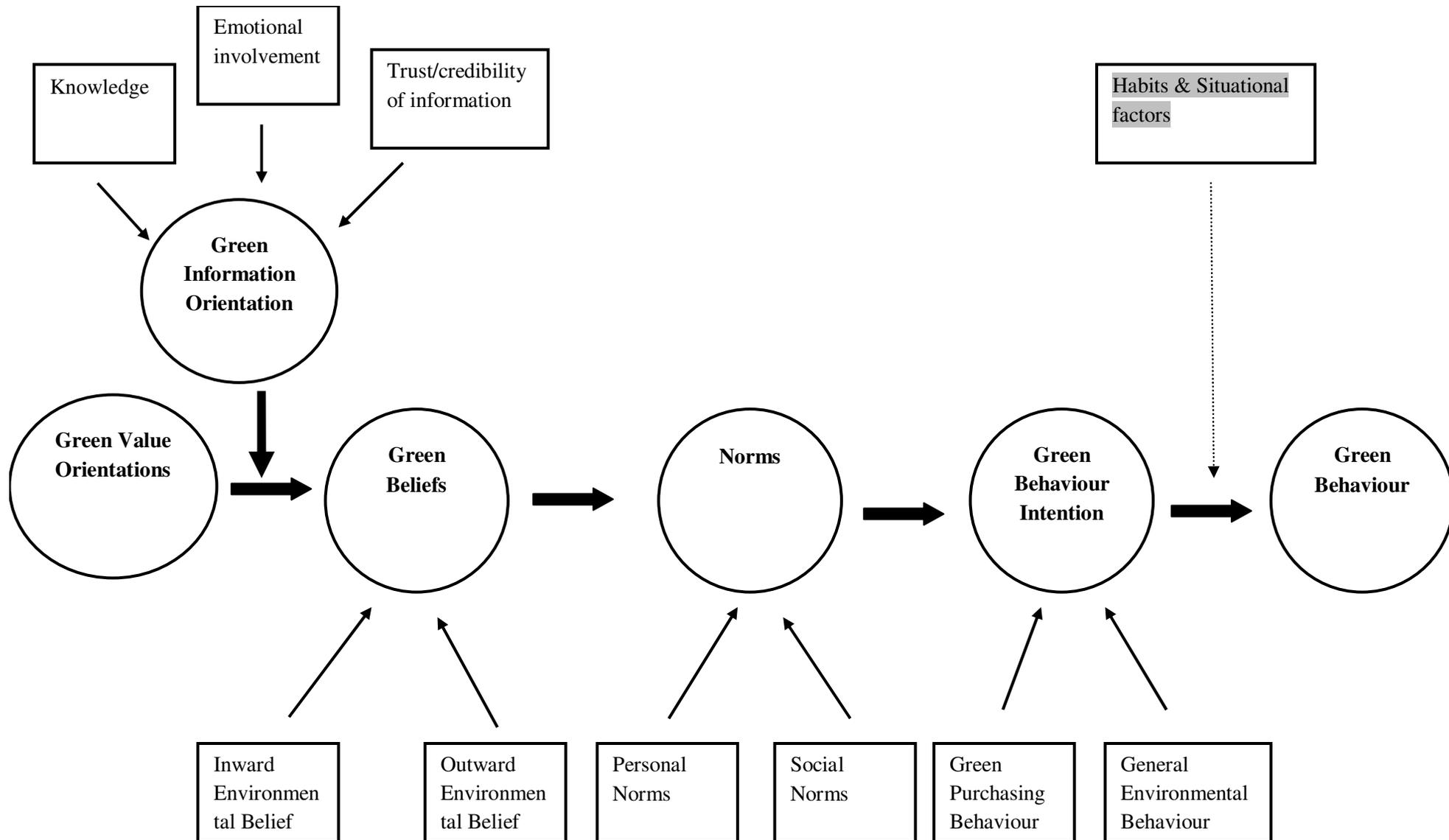
8. CONCLUSIONS

Even if all theories implicitly acknowledge the importance of information in activating values, beliefs and attitudes towards behaviour, they do not explicitly incorporate how this information can influence the relationship between attitudes and behaviour. In order to bring the role of information into the model, it draws from the information processing theory and argues that green related information influences the multiple linkages in the green value- action chain, namely linkage between a person's green value orientation and belief system, linkage between beliefs system and norms, linkage between norms and behaviour intention, as the last in the chain, linkage between behavioural intention and actual behaviour. This has been remained unexplored in the green and consumer behaviour literature.

It is evident that though all theories and models that address the green attitude-behaviour (value-action) gap have added different insights to explain the issue, these insights have not yet investigated in a single synthesised / integrated model to predict the green behaviour in a more comprehensive manner. Therefore, the present study framework addresses this limitation by developing a more comprehensive conceptual model that tries to link all major contributions of past literature based conceptualizations. It highlights improved theoretical rigour of the study.

The figure 6 indicates the synthesized conceptual model and each section illustrate these contributions by developing hypotheses or study propositions. However, this study is not discussed the influence of habits and other situational factors. Thus, consumer habits can be taken as new environmental behavioural research theme because people do not practice the new behaviour until it has become a habit. In the diagram, habits and situational factors are drawn in black box with indirect arrows. Finally, it can be concluded that this new comprehensive study framework will support for studying green consumer behaviour multifaceted research in empirical domain.

Figure 6: Proposed Conceptual Study Framework





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