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Factors Affecting Green Purchase Behaviour and Future Research Directions



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ABSTRACT

This study reviewed 53 empirical articles on green purchase behavior from 2000 to 2014. This is one of the first study that reviewed articles related to attitude - behaviour inconsistencies in the context of green purchasing. This review identified various prevalent motives, facilitators and barriers affecting purchase decision-making towards green products and provides possible explanations for inconsistencies reported in green purchase behavior. All These factors are divided into those unique to the individual decision maker and those considered situational in nature. Consumer's environmental concern and products functional attributes emerged as the two major determinants of consumer green purchase behavior. The paper informs about the main predictors of consumer's green purchase behavior. In this way, it will help policy makers and managers in formulating and implementing strategies to encourage green purchasing.

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1. Introduction

Over the last decade, consumer consumption of goods and services has increased tremendously across the world, leading to depletion of natural resources and severe damage to the environment (Chen and Chai, 2010). Some of the serious repercussions of environmental damage are global warming, increased environmental pollution, and decline in flora and fauna (Chen and Chai, 2010). Various countries across the globe are beginning to realize this threat and have started working towards minimizing the harmful impact of their business activities on the environment. This realization and concern towards the environment and society has led to the emergence of 'sustainable development' which emphasizes the need to promote sustainability and advocates that form of development which minimizes negative impact on the environment and society. Sustainable development further encourages eco innovation and green consumption. Eco innovation focuses on incorporating environmental sustainability practices at every stage of creation of goods and services (Veleva and Ellenbecker, 2001). 'Green consumption' on the other hand, is normally related to environmentally responsible consumption where consumers consider the environmental impact of purchasing, using, and disposing of various products, or using various green services (Moisander, 2007).

Environmentally responsible purchasing is vital as unplanned purchasing of goods can severely damage the environment. Grunert (1995) reported that consumer household purchases were responsible for 40% of the environmental damage. Consumers possess the capability to prevent or decrease environmental damage by purchasing green products. Previous research indicates that consumers have a positive attitude towards environmental

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protection (Arvola et al., 2008; Ellen, Webb and Mohr, 2006; Liu et al., 2012; Vermeir and Verbeke, 2006). In fact, consumers have, in the past, expressed their demand for green products to companies (Bockman, Razzouk and Sirotnik, 2009; Schmeltz, 2012). Although the number of individuals willing to purchase green products has increased in the last few years, there is little evidence to suggest that purchase of green products has increased; despite environmental concern and positive attitude of customers towards sustainability and green products, market share of green products remains confined to just 1-3% of the entire market (Bray, Johns and Killburn, 2011). This suggests that environmental considerations play a minor role in consumer purchasing decisions and people generally overlook environmental impacts of their purchases (Mohr, Webb and Harris, 2001).

While exploring green purchase behaviour, many studies have reported a discrepancy or “gap” between consumers’ expressed favourable attitudes and actual purchasing practices (Tanner and Kast, 2003; Vermeir and Verbeke, 2006; Vermeir and Verbeke, 2008). Hughner (2007) found that while many consumers showed a positive attitude towards purchases of organic food products (67%), only a small number of consumers (4%) actually purchased those products. Similarly, Defra (2006) found that 30% of the consumers in UK have reported their concern towards the environment, but rarely translated their concern into a green purchase. It is thus clear that there exists a gap between consumers’ thinking and actual actions (Chen and Chai, 2010; Wheale and Hinton, 2007). This discrepancy or gap between consumers’ favourable attitude towards, and actual purchase behaviour of green products is referred to as ‘green purchasing inconsistency’ or ‘green attitude-behaviour gap’. It signifies that consumer positive attitude towards green products does not always translate into action. It is essential to examine why environmental attitudes have a weaker influence on consumer green purchase behaviour; there might be possible factors such as price and availability of the product, and social influences among others that lead to the discrepancy between consumer attitude and purchase behaviour. Once these factors are determined through proper research, steps can be taken to address these issues and encourage consumers to actually purchase green products. Although significant research on environmental consciousness and awareness of the consumer exists (Diamantopoulos et al., 2003; Schwepker and Cornwell, 1991) and studies have also concentrated on observing consumers’ consumption patterns and non-consumption behaviour (Follows and Jobber, 2000; Lee, 2009), yet the knowledge of factors affecting consumer green purchase behaviour remains limited. Previous studies have clearly shown that even though individuals understand the seriousness of environmental issues, their environmental attitudes do not necessarily lead to green purchasing (Bamberg, 2003; Kilbourne and Beckmann, 1998; Nordlund and Garvill, 2002). Recently, Rokka and Uusitalo (2008) claimed that even consumers with the highest level of environmental consciousness do not always purchase green products; their choice of products depends on both ecological perspectives as well as their evaluation of the various product attributes. Further, situational factors can also hamper environmentally responsible purchasing and lessen the influence of a positive environmental attitude.

It is thus clear that previous research has not been able to recognize why a positive consumer attitude fails to convert into a green purchase (Gupta and Ogdén, 2009). Further, there has been no comprehensive investigation of the wide-range of factors and their influence on environmentally responsible purchasing (Memery et al., 2005). The authors did not find any review study on attitude-behaviour inconsistencies in the context of consumer green purchase behaviour, although empirical studies concerned with various dimensions of green consumption were found. The existing attitude-behaviour inconsistency and a lack of proper explanation thereof, along with an absence of a review addressing this issue, motivated the authors to review extant relevant literature on attitude-behaviour inconsistency in context of consumers’ green purchasing behaviour. In addition, damage to the environment (pollution, depletion of resources, etc.) and as a result increased emphasis on manufacturing sustainable products by firms has made it essential to identify the factors influencing green purchase behaviour of consumers, which provides additional motivation for the present research. A review of existing empirical studies would enable the identification of multiple factors motivating or hindering the green purchase behaviour of consumers. Further, these drivers and barriers may help in explaining the various reasons behind the existing attitude-behaviour inconsistency and the factors responsible for such inconsistent behaviour.

Academic literature has used words like “green purchasing”, “adoption of green product” and “green acquisition” to explain consumer environmental purchasing behaviour. In this paper, all these terms are used interchangeably. This literature review serves as a link between future research and existing studies on sustainable consumption. The present study analyses the available empirical literature on green purchasing and attempts to identify prevailing motives and factors influencing consumer attitude, purchase intention and actual purchase behaviour toward green products. It informs the reader about various factors (as covered by other studies) influencing consumer attitudes and behaviour, and provides a possible explanation for the observed attitude-behaviour gap. Results show that an individual’s environmental concern and knowledge, and the product’s functional and green attributes are major drivers whereas high price and inconvenience in purchasing the product are major barrier towards consumer green purchase behaviour. The remainder of the paper is structured as follows: The next section gives a brief review of literature on green purchase behaviour and reported attitude-behaviour inconsistency. A description of the methodology and approach of the study follows. The section after that comprises findings and discussion. Finally, implications and conclusions are provided.

2. Literature review

Green purchasing refers to the purchase of environmentally friendly products and avoiding products that harm the environment (Chan, 2001). Green purchasing is most often measured as green purchase intention and behaviour. Green purchase intention refers to consumers’ willingness to purchase green products. Intentions capture the motivational factors that influence green purchase behaviour of consumers (Ramayah, Lee, and Mohamad, 2010).

Green purchase behaviour represents a complex form of ethical decision-making behaviour and is considered a type of socially responsible behaviour. As a socially responsible consumer, the green consumer “takes into account the public consequences of his or her private consumption and attempts to use his or her purchasing power to bring about social change” (Moisander, 2007). A green product is one which satisfies consumers’ needs without damaging the environment and contributes towards a more sustainable world (Shamdasami, Chon-Lin and Richmond, 1993). These products are environmentally superior and have low environmental impact. Green products use material safer to the environment, are recyclable and require less packaging (Chan and Chai, 2010). Some examples of green products are: organic products, energy efficient light-bulbs, herbal products, eco-friendly washing machine, etc.

In an attempt to explain consumer green purchase behaviour, previous studies have focused on describing the underlying values, attitude and behavioural intentions toward environmentally friendly products (Foxall and Pallister, 2002; Vermeir and Verbeke, 2006; Wheale and Hinton, 2007). The theory of reasoned action (TRA) by Ajzen and Fishbein (1980) and the theory of planned behaviour (TPB) by Ajzen (1985) were the two prominent theoretical approaches followed by most of the studies. A few studies employed other versions of hierarchical values-beliefs-attitude-behaviour models. According to TRA (Fishbein and Ajzen, 1980), individual behaviour is determined by two main factors - individual attitude and social norms. TPB (Ajzen, 1988) added one more factor as a determinant of individual behaviour - perceived behavioural control. Perceived behavioural control is the perceived control one has over one’s purchasing actions. Many studies have followed TPB for exploring consumer attitude, intentions and actual buying behaviour with regard to green products (Arvola et al., 2008; Smith and Paladino, 2010; Tanner and Kast, 2003; Tarkiainen and Sundqvist, 2005). However, majority of the studies observed a weak relationship between the expressed positive attitude of consumers toward purchasing green products and their actual purchase behaviour, generally referred to as the attitude-behaviour gap (Tanner and Kast, 2003; Vermeir and Verbeke, 2008; Webster, 1975; Wheale and Hinton, 2007). The predictive ability of attitudes remains debatable in context of environmental consumerism; most studies show that environmental concern or attitudinal variables fail to capture green purchase behaviour (Bamberg, 2003; Hines et al., 1987; Schultz et al., 1995; Scott and Willis, 1994; Tanner, 1999). TPB was not considered a suitable model for explaining ethical behaviour in most studies since it did not consider the consumer affective element that was found to influence consumer ethical behaviour (Magnusson et al., 2003; Padel and Foster, 2005). In addition, it did not account for the consumers’ habitual buying behaviour (Padel and Foster, 2005; Thøgersen and Olander, 2003). Also, previous studies have not determined the influence of various situational factors (such as economic constraints) that may confound the relationship between environmental attitudes and behaviour (Mainieri et al., 1997). TPB approach thus fails to explain consumer decision making during purchase of the product, and whether they would purchase it in future (post-purchase behaviour), although it examines the antecedents of consumer intentions in pre-consumption situations. The attitude-intention-behaviour models also ignore external effects of the environmental and situational factors on consumer purchase behaviour. (Carrington et al., 2010; Foxall, 1993). Various studies have proposed some modifications to TPB in order to overcome its limitations. These modifications may help in explaining the reasons behind observed attitude-behaviour inconsistencies in context of green purchasing.

Various theories exist which assert that attitude alone does not affect behaviour; there are other factors that not only influence behaviour, but also the strength of the attitude-behaviour relationship. Guagnano et al. (1995) introduced Attitude-Behaviour-Context (ABC) model to better understand human behavior. According to this model, consumer green behavior is not only determined by attitude, but also by contextual factors. Favorable contextual factors strengthen whereas unfavorable contextual factors diminishes the strength of the attitude-behaviour relationship. Under supportive conditions, even people with weak environmental attitudes behave in an environmentally friendly way, whereas in restrictive conditions, people with highly positive environmental attitudes also may be discouraged to show environmentally friendly behavior. Olander and Thøgersen (1995) introduced Motivation-Ability-Opportunity (MAO) model for understanding consumer behaviour. MAO model used two constructs - ability and opportunity, as indispensable pre-requisites to green consumer behavior. The ability construct incorporates both habit and task knowledge, whereas the opportunity construct incorporates facilitating conditions or ‘opportunity’ to perform the behaviour. According to this model, consumers’ positive attitude will lead to desired behaviour only if they have the ability and the opportunity to carry out the expected behaviour. For example, green purchase will not happen without easy availability of green products. Recently, Phipps et al. (2013) introduced reciprocal deterministic theory to understand sustainable consumer behavior. This model emphasized the importance of past behavior and considered it as an indicator of future sustainable behaviour. The model suggests that personal factors such as attitude, along with past sustainable behaviors and sociocultural environments, affect future sustainable behavior. It is thus clear from the above discussion that consumer behavior is not only affected by attitude, but also by various other personal and situational factors. Further, these factors can either strengthen or weaken the strength of attitude-behavior relationship.

3. Methodology and approach to the literature

The purpose of this literature review is twofold: first, to examine existing empirical research and identify the various factors affecting green purchase intention and behaviour, and second, determine the reasons behind the observed attitude-behaviour inconsistency regarding green product purchase on the basis of the factors identified. The methodology adopted for this literature review is explained in the following sections.

3.1 Scope - This study presents a review of empirical articles on consumer green purchase behaviour published in reputed academic journals from 2000 to 2014. The year 2000 was selected as the first year of inclusion. This period (2000 – 2014) was chosen because major previous studies (before 2000) related to green purchase behaviour had been included in a literature review on ecological consciousness behaviour carried out by Irene Tilikidou in

1999. Also, a review of studies falling in the period mentioned above will give an account of recent empirical literature. This paper focuses only on studies that sought to identify the various factors affecting green purchase behaviour. Studies reporting the effect of demographic variables were beyond the scope of the paper. Studies were collected by performing an electronic search of the Scopus database. Scopus database was chosen to ensure the inclusion of only high quality studies.

3.2 Selection of articles - The selection criteria and process followed for the study are given below.

3.2.1. Selection criteria - Green consumption comprises a broad range of consumption practices. This paper focuses only on studies that explain the various factors affecting consumer purchase intention and actual purchase behaviour towards green products. For selection of relevant studies, the following selection criteria were followed: (1) The study should have been published during 2000-2014. (2) The study should be empirical in nature. (3) The study should discuss or explain the various factors affecting consumer green purchase intention or behaviour.

3.2.2 Selection process - Research articles were identified through a systematic search procedure that comprised searching key words in the title, abstract, and keywords section of the database (Scopus). The key words used (in several combinations) were: “green purchasing”, “eco-innovation adoption”, “green consumption” “sustainable consumption”, “attitude-behaviour gap”, “sustainable purchasing”, and “organic purchasing”. This search gave 161 articles. In the next step, content analysis of the articles was done by cross-checking the abstracts to ensure that the database gave only relevant articles for analysis. Only the empirical studies investigating various motives, barriers and other factors affecting consumer green purchasing intention and behaviour were included. This process led to elimination of 86 articles. Next, a cross-reference search of all collected articles was carried out to see if any relevant study that could be included was left out. However, no such paper was found. Studies considering the impact of demographic factors were also not included. This resulted in elimination of 22 more articles. All articles were then checked for duplication however no duplicate papers were found. At the end of the elimination process, 53 valid articles were left for study.

A taxonomic synopsis of articles and dependent variables mentioned therein are presented in Table 1. These 53 studies have been arranged in chronological order. The selected articles were limited in number as only empirical articles related to green purchasing were included. Only empirical articles were selected because they are less susceptible to bias. Further, such studies provide a truer depiction of consumers in different contexts and cultures. The studies finally selected were based on primary research conducted in Europe, United States, Australia, Asia and Africa. Findings and conclusions of the study can be generalized globally.

3.3 Approach towards the Analysis: - The present study is a literature review done with the help of a within-study and between-study literature analysis. According to (Kaushik and Rahman, 2014; Salloum et al., 2011), both these types of analyses are important and should be considered for all literature reviews. For the purpose of this study, full-text research articles were extracted from the Scopus database. In within-study literature analysis, the entire content of a particular study is examined. It comprises analysis and review of: title, literature, conceptual background, methodology, results, discussions, implications and future research directions. On the other hand, a between-study literature analysis includes comparison of important information between two or more studies. This reveals the similarities and differences between studies.

Table 1: List of Studies affecting green Purchase Behaviour

No.	Year	Authors	Dependent variable	
			Green purchase intention/Willingness to pay	Green purchase behaviour
1	2000	Bang et al.	√	
2	2000	Chan and Lau	√	
3	2000	Follows and Jobber	√	
4	2001	Chan	√	√
5	2001	Magnusson et al.	√	√
6	2002	Fotopoulos et al		√
7	2002	Makatouni		√
8	2003	Magnusson et al.	√	
9	2003	Tanner and Kast		√
10	2005	Ek	√	
11	2005	Gosslinga et al.		√
12	2005	Kim and Choi		√
13	2005	Padel and Foster		√
14	2005	Tarkiainen and Sundqvist	√	√
15	2006	Mostafa	√	
17	2006	Vermeir and Verbeke	√	
18	2007	Wolsink	√	
19	2008	Arvola et al.	√	
20	2008	Krystallis and Vassallo		√
21	2008	Lea and Worsley		√

22	2008	Tsakiridou et al.		√
23	2008	Vermeir and Verbeke	√	
24	2009	Mondelaers et al.	√	
25	2009	Welsch and Kuhling		√
26	2010	Cerjak et al.		√
27	2010	Connell		√
28	2010	Niinimäki		√
29	2010	Smith and Paladino	√	√
30	2010	Young et al.		√
31	2011	Aertsens et al.		√
32	2011	Lee		√
33	2011	Rahbar and Wahid		√
34	2012	Akehurst et al.	√	√
35	2012	Chen and Lobo	√	
36	2012	Chan and Wong		√
37	2012	Chen et al.	√	
38	2012	Liu et al.	√	
39	2012	Tung et al.	√	
40	2013	Eze and Ndubisi		√
41	2013	Gleim et al.	√	
42	2013	Kang et al.	√	
43	2013	Kozar and Connell		√
44	2013	Ma et al.		√
45	2013	Paco et al.		√
46	2013	Ramayah and Rahbar	√	√
47	2013	Salazar et al.		√
48	2013	Tsarenko et al.		√
49	2013	Vicente-Molina et al.		√
50	2013	Zhu et al.	√	√
51	2014	Kanchanapibul et al.	√	√
52	2014	Nittala	√	
53	2014	Zhao et al.		√

4. Findings and results

An extensive review of 53 articles on consumer green purchase behaviour revealed that a majority of studies failed to identify the determinants of green purchase behaviour. The major problem appeared to be defining and measuring both dependent and independent variables. Green consumption, adoption of eco-friendly products, environmentally responsible purchasing, sustainable consumption, and eco-innovativeness were found to be the major dependent variables. A large number of factors affecting consumer green purchase intention and behaviour appeared as independent variables in various studies. A comprehensive list of all variables affecting green purchase intention and actual green purchase behaviour is given in Table 2 and Table 3. In the first column of Tables 2 and 3, the authors describe various factors affecting consumer green purchase intention/green purchase behaviour followed by direction of impact in the next column. The last two columns show: 1) specific studies (as listed in Table 1) that report a specific independent factor, and 2) the total number of such studies. The authors have further classified these factors under two broad categories: individual and situational. Individual factors include variables related to an individual decision maker whereas situational factors comprise variables that make and describe the various situations in which an individual consumer makes consumption decisions.

4.1 Individual factors: This category includes variables specifically related to an individual decision maker. These variables are generally a result of individual life experiences (attitudes, values, personality, etc.) and affect an individual's decision making process. This paper includes the following individual variables:

4.1.1 Emotions - As shown in Tables 1 and 2, six studies reported a positive and direct impact of consumers' environmental concern on green purchase intention and behaviour (e.g., Makatouni, 2002). Two studies found that ecological concerns positively influenced green purchase intention (Chan and Lau, 2000; Kanchanapibul et al., 2014). Environmental concerns and responsibility were found to have a positive and direct impact on ecological knowledge, purchase intention and actual purchase behaviour (Makatouni, 2002; Padel and Foster, 2005; Wang, Liu, and Qi, 2014; Zhao et al., 2014). In one study each, consumer guilt (Young et al., 2010) and generativity (Paco et al., 2013) were found to have a significant influence on consumer green purchase behaviour. Thus, it can be said that consumer emotions, specifically environmental concern, has a positive and direct impact on consumer green purchase intention and behaviour.

4.1.2 Habits – Two studies (Table 2) reported a negative influence of habit on consumer green purchase behaviour (Padel and Foster, 2005; Vermeir and Verbeke, 2006). Further, habit has been reported as a significant obstacle to purchasing green products (Tsakiridou et al., 2008). Habit and past behaviour guide consumer preferences and influence their purchasing behaviour, making it difficult to change. However, limited studies have observed the

influence of habit on consumer green purchase behaviour. Therefore, further investigation is required in this area.

4.1.3 Perceived consumer effectiveness - Perceived consumer effectiveness is one of the most studied variables and has been defined as “consumers’ evaluation of the extent to which their consumption can make a difference in the overall problem” (Webster, 1975). Seven studies found a positive correlation between perceived consumer effectiveness and purchase intention/adoption of green products (e.g., Gleim et al., 2013; Gupta and Ogden, 2009). Perceived consumer effectiveness was also found to indirectly influence consumer purchase intention since it significantly affected consumer attitudes, subjective norms and perceived behavioural control which further determined consumer purchase intention (Kang et al., 2013). Hence, it can be said that there exists a positive correlation between perceived consumer effectiveness and green purchase intention and behaviour.

4.1.4 Perceived behavioural control - Perceived behavioural control is the perceived control one has over one’s actions. It refers to the capacity of an individual to perform a given behaviour (Ajzen, 1988). Two studies (Table 1) found perceived behavioural control to have a significant and positive impact on intention and actual purchase of green products (Ma, Littrell, and Niehm, 2012; Wang et al., 2014). There was however, one study which reported that perceived behavioural control and consumer green purchase intention were not related (Arvola et al., 2008). It can be said although there is some evidence that perceived behavioural control positively influences green purchase behaviour, yet further empirical investigation is warranted due to the limited research in the area.

4.1.5 Values and personal norms – Six studies (Tables 1 and 2) reported a positive correlation between environmental, social and ethical values of consumers and their purchase behaviour toward green products (e.g., Chen et al., 2012; Eze et al., 2013; Wang et al., 2014; Young et al., 2010). Specifically altruism, universalism and benevolence were values that were found to positively affect purchase intention and actual purchase of green products (Doran, 2009; Mondelaers, Verbeke, and Huylenbroeck, 2009; Mostafa et al., 2006; Padel and Foster, 2005). It was further found that individualistic values such as health and safety, and hedonistic values such as pleasure in eating positively affected purchase behaviour of green products, specifically green food products (Cerjak et al., 2010; Padel and Foster, 2005). Several studies even found that individualistic values had a stronger influence than altruistic values in purchasing green food products (Krystallis and Vassallo, 2008; Magnusson et al., 2003). Moral and personal norms were also found to have a significant influence on purchase intentions and actual purchase (Arvola et al., 2008; Gleim et al., 2013). It can thus be said that the environmental, social and ethical values held by consumers along with their individualistic values have a positive influence on green purchase behaviour.

4.1.6 Trust- In the context of green products, trust is defined as a belief or expectation about the environmental performance of such products (Chen, 2013). Of the 53 studies reviewed by the authors, 6 observed the influence of trust on consumer green purchase intention and behaviour. These studies found that lack of consumer trust and confidence in green claims and characteristics of green products was a significant barrier towards purchase of green products (Bang et al., 2000; Fotopoulos and Krystallis, 2002; Gupta and Ogden, 2009; Krystallis et al., 2008; Tung et al., 2012; Vermeir and Verbeke, 2008). In one study, green trust was found to mediate the relationship between green perceived value and green perceived risk - the two antecedents of green purchase intention (Chen et al., 2012). Hence, it can be said that lack of consumer trust in green products acts as a barrier towards green purchase behaviour.

4.1.7 Knowledge – Knowledge was found to be the most studied variable; eighteen papers examined consumers’ environmental knowledge (Table 1). Of the eighteen studies, fifteen found that knowledge of environmental issues positively influenced consumer intention and actual purchase of green products (e.g., Chan et al., 2000; Eze et al., 2013). Three studies did not find any relation between environmental knowledge of the consumer and green purchase intention (Chan and Lau, 2000; Ramayah and Rahbar, 2013; Wolsink, 2007). Other than these eighteen studies, two other studies also found that lack of information negatively affected green purchase behaviour (Connell, 2010; Padel and Foster, 2005). Numerous other studies have also reported that knowledge of organic food positively affected the formation of organic attitudes (e.g., Smith et al., 2010). Fraj-Andrés et al. (2007) gave a possible explanation of the effect of environmental knowledge on consumer ecological behaviour and suggested that environmental knowledge moderated the relationship between ecological attitude and green behaviour. However, a few studies found that consumer knowledge did not influence the purchase of fuel-efficient vehicles (Bang et al., 2000). Also, knowledge of environmental benefits of wind power was not found to be associated with positive attitudes toward wind power projects (Bang et al., 2000; Wolsink, 2007). The above findings suggest that environmental knowledge may have a positive effect on consumer green purchase intention and behaviour. However, further research in this area is encouraged to concretely establish the influence of environmental knowledge on green purchase intention and behaviour.

4.1.8 Other individual factors – Among others, the perception of the consequences of a green purchase and response efficacy were also found to influence green purchase (Wang et al., 2014; Follows et al., 2000). One study also found that variety seeking and self-indulgence (dimensions of consumer lifestyle) influenced purchase of organic food products (Chen et al., 2012).

4.2 Situational factors - These factors represent situational forces that affect green purchase decisions of consumers. These forces either encourage or discourage consumers to adopt green products. The variables included under this category are explained below.

4.2.1 Price - It has been reported in 10 studies (Tables 1 and 2) that higher price outweighed ethical considerations and widened the attitude-behaviour gap in case of purchase of green products (e.g., Connell, 2010; Gleim et al., 2013; Padel and Foster, 2005; Vermeir and Verbeke, 2006). Lack of economic resources of consumers was found to magnify the effect of price and act as a barrier to purchase of green products (Connell, 2010). However, low price sensitivity of consumers was found to positively affect green purchase behaviour (Aertsens et al., 2011; Eze and Ndubisi, 2013; Lea and Worsley, 2008). Conversely, high price sensitivity negatively affected (Ma et al., 2013) green purchase behaviour of consumers. It is thus clear that high price negatively influences green purchase intention and behaviour.

4.2.2 Product availability – As seen in Table 1 and 2, five studies reported that limited availability of a product had a negative influence on consumer green purchase intention and behaviour (e.g., Young et al., 2010); conversely, four studies reported that availability of a product had a positive relation with green purchase intention and behaviour (e.g., Tarkiainen and Sundqvist, 2005). Most studies showed that limited availability and difficulties in accessing green products were major barriers to purchasing environmentally sustainable products (Padel and Foster, 2005; Young et al., 2010). On the other hand, easy availability of the green product positively affected green purchase behaviour (Tarkiainen and Sundqvist, 2005; Vermeir and Verbeke, 2008). Consumers generally don't like to spend a lot of time searching for green products; they prefer products that are easily accessible (Tanner and Kast, 2003; Young et al., 2010). Further, consumers generally look for convenience in purchasing (Fotopoulos et al., 2002; Padel and Foster, 2005) and avoid behaviours that require higher perceived efforts (Gosslinga et al., 2005). Thus, it can be said that limited availability and inconvenience in procuring products act as barriers and increase the gap between consumer positive attitude and actual behaviour towards purchasing green products.

4.2.3 Subjective norm/social norm and reference groups - As seen in Tables 1 and 2, 13 studies have examined the influence of subjective norm/social norm and reference groups on purchase intention and actual purchase behaviour. Out of these, eleven studies found subjective or social norms and reference groups to have a positive correlation with purchase intention and actual purchase of green products (e.g., Eze et al., 2013; Liu et al., 2012; Welsch et al., 2009) while two studies found that societal norm had a negative relationship with purchase intention and actual purchase behaviour (Connell, 2010; Lee, 2011). Subjective norm was also found to have an indirect influence on consumer green purchase behaviour as it influenced green attitudes that further affected green purchase behaviour (Gadenne et al., 2013; Smith et al., 2010; Tarkiainen and Sundqvist, 2005; Welsch et al., 2009; Salazar, Oerlemans, and van Stroe-Biezen, 2013). Findings further reveal that social and reference groups, especially peers and other individuals with close proximity to consumers have a stronger influence on consumers' green purchase decision-making process (Lee, 2010; Salazar et al., 2013; Tsarenko et al., 2013). To summarize, it can be said that subjective or social norm and reference groups have a positive relationship with consumer green purchase behaviour.

4.2.4 Product attributes and quality – Four studies (Tables 1 and 2) found that product attributes positively influenced purchase of green products (e.g., Chen et al., 2012; Young et al., 2010). Also, consumers preferred functional attributes of the product (that fulfil personal needs and desires) over its ethical characteristics (Chen and Lobo, 2012; Tsakiridou et al., 2008). Taste, quality and healthiness of product have been reported as important attributes for consumers who purchase green food products (Cerjak et al., 2010). Only one study reported that product attributes were not related to green purchase behaviour (Chan and Wong, 2012). Three studies reported that product quality significantly influenced consumer green purchase intention and behaviour (Mondelaers et al., 2009; Smith and Paladino, 2010; Tsakiridou et al., 2008). Perceived high quality of green products has a positive influence (Aertsens et al., 2011; Mondelaers et al., 2009), whereas perceived low quality of green products has a negative influence (Smith and Paladino, 2010; Tsakiridou et al., 2008) on consumer green purchase intention and behaviour. Therefore, it can be said that functional and sustainable characteristics of products combined with high product quality positively influence consumers' green purchase behaviour. Conversely, poor product attributes and inferior quality may result in a conflict between personal needs of consumers and their sense of environmental and social responsibility, which may further increase the inconsistency between attitude and actual buying actions.

4.2.5 Store related attributes – Two studies (Table 2) found that store related attributes of sustainability positively influenced consumer purchase of green products (Tanner and Kast, 2003). However, the high price of sustainable products weakened this relationship (Chang et al., 2012). On the other hand, two studies reported that unfavourable retail environments may act as a constraint towards environmentally sustainable purchasing (Connell, 2010). Both studies reported that favourable store related attributes positively affected consumer green purchase behaviour, however, as the number of studies observing the influence of store related attributes on green purchase behaviour is less, further investigation in this area is required.

4.2.6 Brand image - Brand image in terms of green products can be defined as “a whole range of impressions, conceptions and apprehensions towards a brand in the customers' memory which is correlated to the sustainability and eco-friendly concerns” (Chen, 2010). Consumers generally have personal favourite brands and they prefer them over green brands (Young et al., 2010). Also, consumer trust in a green brand is an important purchase criterion which positively influences their purchase of green products (Rahbar and Wahid, 2011). Only a few studies were found to have investigated the influence of brand image on consumers' green purchase behaviour, therefore, more research is needed in this area to get conclusive results.

4.2.7 Eco labelling and certification - Eco-labelling or eco-certification informs consumers about the green characteristics of the product and motivates them to purchase green products (Young et al., 2010). However, it has been found in two studies (Table 3) that consumers do not trust the

information provided and remain skeptical towards the manufacturing, labelling and certification procedures of various products (Nittala, 2014). These studies have suggested that reliable information should be provided in a simple and user-friendly way through product labels. This might build consumer trust and encourage more sustainable purchases (Rahbar and Wahid, 2011). Above findings suggest that eco labelling might not have any impact on consumer green purchase behaviour if they do not trust the information provided.

4.2.8 Other situational factors - In one study, it was found that environmental structures and services, a consumer's local environmental involvement and consumer exposure to environmental messages through media influenced pro-environmental consumer behaviour (Lee, 2010). Another study observed that regulatory laws affected consumers' purchase of organic food products (Chen et al., 2012).

Table 2. Factors affecting green purchase intention

Independent variable	Direction	Studies	Total number of studies
Collectivism	+	4, 46	2
Man nature orientation	+	2	1
Interest in environmental issues	+	10	1
Inclined to express public preferences	+	10	1
Subjective norm /Social group /Social influence	+	14,17,23,29,42	5
Knowledge/Information	+	1,15,38,41,42,51,52	7
	Unrelated	2,18,46	3
Personal norm, personal values	+	17	1
Environmental value	+	50	1
Environmental concern	+	1	1
	Unrelated	52	1
Beliefs about positive consequences	+	1	1
Promotion/diffusion	+	50	1
Environmental consequences	+	3	1
Individual consequences	-	3	1
Environmental attitude	+	19,23,38,42	4
AGP	+	4,14,15,46	4
Egoistic motives (health concern)	+	8	1
Altruistic motives (Environmental concern)	+	1,8,15,29	4
	Unrelated	52	1
Perceived behavioral control	+	14, 42	2
	Unrelated	19	1
Availability of organic food	+	14,23	2
Convenience	+	4	1
High perceived efforts	-	11	1
Perceived consumer effectiveness(PCE)	+	15,17,23,42	4
High Involvement	+	17	1
Quality traits	+	24	1
Price	-	11,24,36	3
	+	41	1
Eco labeling	+	24	1
	-	52	1
Product attributes	+	35,52	2
Lifestyle	+	35	1
Regulation	+	35	1
Trust/Confidence in green product	+	17,23,37,39	4
Lack of trust in green product	-	11,15	2
Green perceived risk	-	37	1
Green perceived value	+	37	1
	+	38	1
Perceived personal relevance	+	42	1
Ecological affect	+	2,51	2

Table 3. Factors affecting green purchase behaviour

Independent variable	Direction	Studies	Total number of
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			studies
Subjective norm /Social group /Social influence /reference group	+	25,29,30,40,47,48	6
Societal norm	-	27,32	2
Knowledge	+	9,13,30,40,43,44,45,49	8
Lack of information	-	13,27	2
Economic Resources	+	25	1
Lack of economic resources	-	27,32	2
Personal norm, personal values	+	40	1
Environmental value	+	30	1
Ethical value	+	28	1
Environmental concern	+	12,13,26,48,53	5
Better environmental consequences	+	31	1
Environmental attitude	+	9,43,53	3
	Unrelated	40,44,49	3
AGP	+	29	1
Unfavourable attitude	-	27, 32	2
Past consumption (habit)	+	25	1
Egoistic motives (health concern)	+	7,13,21,26,29,31	6
Security (safety)	+	26	1
Individualistic values (stimulation, hedonism)	+	20,21	2
Universalism	+	20	1
Benevolence values			
Altruistic motives	+	13,48,53	3
Idea of return to the nature	+	26	1
Limited availability of organic food	-	6,13,22,27,32	5
Availability of organic food	+	21,31	2
Look for convenience	-	6,13	2
High perceived efforts	-	11	1
Perceived consumer effectiveness (PCE)	+	12,44,49	3
Quality traits	-	22,29	2
	+	31	1
Price	-	5,6,11,13,22,36,44	7
Low price-sensitivity	+	21,31,40	3
High price sensitivity	-	44	1
Product attributes	+	5,31	2
	Unrelated	36	1
Lack of trust/confidence in green product	-	6,11,13,22	4
Green trust	+	39	1
Trust in Eco label	+	33	1
Trust in Eco brand	+	33	1
Environmental advertising	-	33	1
Green purchase intention	+	4,14,34,51,46	5
Habits	-	5,13	2
Personal values	+	40	1
Perceived time barriers	+	9	1
Frequency of shopping in supermarkets	+	9	1
Product quality and presentation	-	13,29,31	3
Universalism values	+	20	1
Benevolence values	+	20	1
Idea of return to nature	+	26	1
Retail environments	-	27,32	2
Ethical commitment	+	28	1
Familiarity	+	29	1
General green Values	+	30	1
Store Related Attribute	+	36	1
Pro-environmental behavior	Unrelated	40	1
Generatively	+	45	1
Self-image	+	48	1

5. Discussion

Through an extensive literature review, numerous factors affecting consumer green purchase behaviour were identified. All these factors were found to either encourage or discourage purchase of green products. Based on these factors, probable explanations can be suggested for the reported attitude-behaviour gap in green purchase behaviour. As reported by most studies, consumers' high concern for environmental and social issues, and the functional

and green attributes of products are the two major sets of motives that drive their green purchase behaviour.

Consumers' concern and sense of responsibility towards environmental and social issues were found to have a positive impact on green purchase behaviour (Makatouni, 2002). Particularly, environmental concerns were found to motivate the purchase of organic food products (Padel and Foster, 2005). Such findings are justifiable, since consumers generally relate green characteristics of a product with environmentally friendly manufacturing processes (Makatouni, 2002). Concern for the environment was found to be associated with an individual's moral or ethical obligations and/or personal norms (Doran, 2009). It has been found that consumers' true moral obligations or personal norms related to environmental welfare might enhance the attitude-behaviour relationship. On the other hand, consumers who exhibit positive attitudes towards green products, but lack a feeling of strong personal obligation towards the betterment of the environment and society may not be willing to select green products, especially when they have different options.

Consumer values related to environment and ethics, specifically personal values such as self-transcendence that include universalism, altruism and benevolence were found to positively drive ethical obligations and personal norms (Chen et al., 2012; Eze et al., 2013; Padel and Foster, 2005). It can be asserted that strong environmental and social values motivate consumers and increase their involvement in purchase situations. High involvement of consumers means their active participation in the purchase process (Agrawal and Rahman, 2014; Vermeir and Verbeke, 2006), and consideration of both functional and green characteristics of products, favouring attitude-behaviour relationship and green purchases (Vermeir and Verbeke, 2006). Results further show that various emotions, especially feelings of personal safety (Cerjak et al., 2010), guilt (Azoury and Salloum, 2013; Young et al., 2010), and generativity (Paço, Alves, and Shiel, 2013) directly influence consumer behaviour, and may drive consumers towards sustainable purchasing. However, the effects of specific emotions remain largely unexplored. Future research is warranted to address this issue.

Further, studies suggest that a product's functional and green attributes form another group of motives that influence consumers' green purchase behaviour (Young et al., 2010). A product's health related benefits, superior quality, and good taste are the specific attributes that drive the demand and consumption of green food products (Aertsens et al., 2011). Also, perception of poor product quality is an important barrier identified in many studies that affects green purchase decisions (Gleim et al., 2013). Therefore, products with favourable functional and ethical attributes and high quality act as strong motives for buying and are a necessary precondition for translating positive attitudes into actual purchasing actions. On the other hand, inferior quality and poor product attributes may result in a conflict between consumers' personal inclination, and sense of environmental and social responsibility, which may widen the attitude-behaviour gap (Tsakiridou et al., 2008). Consumer preference for product attributes is driven by consumers' individual and egoistic values such as health and safety concerns, and hedonistic values of enjoyment and pleasure in using a product (Cerjak et al., 2010). Therefore, consumers' moral obligations and concern for others, and desire of welfare of one's own family and oneself were identified as significant drivers of green purchasing.

Some studies have sought to compare the intensity of the effects of consumers' environmental concern, and product attributes on green purchase behaviour (Magnusson et al., 2003). However, studies remain divided on the motives that act as prime motivators behind green product purchases. Some studies have reported that product attributes such as healthiness and quality drive the purchase of green products (Aertsens et al., 2011; Chen et al., 2012) whereas other studies have identified altruistic values as the main motivating factors (Padel and Foster, 2005; Tsarenko et al., 2013). Consumers generally make a trade-off between environmental concern and product attributes while purchasing green products. They evaluate various environmental, social and individual consequences of a green product purchase. Consumers that give more importance to environmental and social consequences look for green attributes whereas consumers that attach higher importance to individual consequences seek functional attributes in a product. Such customers do not exhibit green purchase behaviour even though they may have high environmental and social concerns. In the case of these consumers, individual considerations overshadow their positive environmental and social attitudes (Follows et al., 2000). This explains why some consumers show high environmental and social concern, but fail to translate this positive attitude into actual buying behaviour.

Perceived consumer effectiveness and perceived behavioural control are two additional important factors found to affect green purchasing. Perceived consumer effectiveness was found to positively associate with green purchase intention (Gleim et al., 2013; Gupta and Ogden, 2009). It was also found to indirectly affect consumer purchase intention by significantly influencing consumers' green attitudes, subjective norms and perceived behavioural control which further influenced green purchasing behaviour (Kang et al., 2013). Perceived behavioural control was found to positively affect consumers' green purchase intention and actual purchase behaviour (Wang et al., 2014). The strong influence of perceived consumer effectiveness on green purchase intention suggests that consumers are sensitive towards the effect of their consumption patterns on nature and society; they rationally evaluate the benefits of green purchasing activities, and consider how their efforts can make a difference to nature and society.

Extant literature mentions knowledge as one of the most influential factors that affect green purchase intention and behaviour. Most studies show that consumers' knowledge of social and environmental issues positively affects their attitude and actual purchasing of green products (Smith et al., 2010). The level of environmental knowledge also mediates the relationship between green attitude and environmental behaviour (Fraj-Andrés et al., 2007). Therefore, more information would lead to increased consumer knowledge which in turn might strengthen consumers' trust in green products and reinforce the attitude-behaviour relationship. Conversely, lack of knowledge prevents consumers from translating their concerns into the actual purchase of green products (Tanner and Kast, 2003; Vermeir and Verbeke's, 2006). However, some authors have challenged the suggested influence of knowledge.

They have reported only a weak relation between the consumers' level of knowledge and environmental concern, attitude, and actual green purchase decision (Bang et al., 2000; Wolsink, 2007). One possible explanation for this may be that only a basic understanding of ecological and social problems might not be enough to motivate consumers towards adopting sustainable consumption practices. A deeper understanding of the consequences of irresponsible consumption might prove to be more effective in making the consumer shift towards green consumption. These findings could also imply the inability of current methods of disseminating information to convince consumers about the benefits (individual and environmental) of consuming green products. Studies have revealed that consumers generally look for simple and user-friendly information while purchasing green products (Mondelaers et al., 2009). Such information could be displayed through special labels that provide details of the environmentally sustainable attributes of the product.

However, the effectiveness of labels is not clear, especially in case of consumers who are not aware of sustainability issues and may not understand the information displayed on the label. Also, people face difficulties in recognizing eco-labels and distinguishing them from regular ones. Thus, lack of consumer awareness and trust (in eco-labels) reduces the effectiveness of eco-labels. The above findings suggest that eco-labelling might not have an impact on green purchase behaviour if consumers don't trust the information provided. To overcome this limitation, it is suggested that along with labels, appropriate media should be used to disseminate additional information that may educate customers about sustainability issues and help them recognize various eco-labels, and accurately understand their meaning (Liu et al., 2012).

Subjective/social norm and reference groups emerged as important drivers of green purchase behaviour. Numerous studies have reported a positive relationship between subjective/societal norm or reference groups on green purchase behaviour (Eze et al., 2013; Welsch et al., 2009). However, two studies reported a negative relationship between reference groups and individual green purchase behaviour (Connell, 2010; Lee, 2011). Subjective/social norms can influence behaviour as they may exert pressure on an individual to act in a certain way (Gupta and Ogden, 2009). Previous studies have also found that social agents in close proximity such as peers and parents may be considered idols for observational learning and also be viewed as a credible source of information regarding sustainable products (Lee, 2011; Lee, 2014; Salazar et al., 2013; Tsarenko et al., 2013). This phenomenon can be explained with the help of consumer socialization theory which suggests that social groups have a greater influence on consumption behaviour (John, 1999). It further states that green purchase behaviour is associated with social meanings and values. All individuals have various social groups, some of these social groups might have some "norms" on sustainable consumption, including norms regarding environmentally responsible behaviour or green purchase behaviour (Ajzen and Fishbein, 1980); consumers follow these norms to get social approval and acceptance in their groups. Thus, this "group effect" may be a predictor of the way an individual would act in relation to green purchase behaviour (Dotson and Hyatt, 2000). Store related characteristics can also influence consumers to exhibit more responsible purchasing behaviour (Tsarenko et al., 2013; Tanner and Kast, 2003). Store related sustainable attributes were found to positively influence the consumption of various sustainable products including eco-fashion (Chan et al., 2012) and food products (Connell, 2010), whereas unfavourable store attributes acted as constraints towards green purchasing (Connell, 2010).

There are various factors that act as barriers and increase the inconsistency between consumers' positive attitude and actual green purchase behaviour. Higher prices are reported as a significant barrier to purchasing environmentally sustainable products (Vermeir and Verbeke, 2006; Young et al., 2010). Companies generally charge a premium for green products while consumers are usually sensitive towards price; they are willing to buy eco-friendly products, but not at higher prices. Consumers generally prefer low priced green products and attach more importance to price as compared to green claims (Cranfield et al., 2010; Eze et al., 2013). Thus, if the price of the product is higher than their expectations, it will undermine the effect of their green attitude and increase the attitude-behaviour gap in green purchasing.

Further, limited availability of and difficulty in accessing environmentally sustainable products were identified as other major barriers in green purchasing (Lea and Worsley, 2008; Padel and Foster, 2005). Consumers generally prefer products that are easily accessible and don't like to spend time searching for green products (Tanner and Kast, 2003; Young et al., 2010). This unwillingness to spend time in searching environmentally sustainable products indicates consumers' desire of easily accessible/available green products (Padel and Foster, 2005). Thus, limited availability and inconvenience in procuring products increases the gap between positive attitude and actual behaviour towards sustainable green purchasing. When the lack of availability of a product combines with high price and poor brand image, consumers resist purchasing such green products (Lea and Worsley, 2008; Connell, 2010; Young et al., 2010).

Various studies have reported lack of consumer trust in ethical claims and green characteristics of a product as key barriers to purchasing green products (Tsakiridou et al., 2008); consumers do not trust the green characteristics of the product and they are not convinced that consumption of these products will lead to any environmental benefits. Further, consumers do not trust eco-labels and the information available on green packages and avoid purchasing such products (Chen et al., 2012). Thus, consumers' lack of trust emerges as a major cause for the reported attitude-behaviour inconsistency. Consumer habits also emerged as a significant barrier to green purchase behaviour. Several studies have reported a negative relation between consumer habits and green purchase behaviour (e.g., Magnusson et al., 2001; Padel and Foster, 2005). Vermeir and Verbeke (2006) reported that consumers were more prone to follow their habitual consumption patterns when purchasing low involvement products such as daily food and other grocery items. This holds especially true if consumers do not have high environmental and social concern or if they are not motivated either by functional or ethical attributes of the green product. The influence of habit on green purchase behaviour can be possibly explained in terms of rational, emotional and behavioural aspects

of a consumer's psychology; consumers choose a product not only on the basis of rational and emotional aspects, but also unconscious and past behaviour (Magnusson et al., 2001). Brand image was another important factor that influenced green purchasing. Positive brand image was found to build trust in the green characteristics of products and facilitate purchasing. On the contrary, the lack of a strong brand image proved to be a major barrier to purchasing of green products (Young et al., 2010).

It is clear from the discussion above that various factors motivate or hinder green purchase behaviour and influence the translation of positive attitude into actual buying actions. However, further research is needed in some areas to determine the role of these factors and the extent to which they influence green purchase behaviour. Nonetheless, manufacturers and retailers would do well to incorporate the findings of this study into their marketing strategy so that they can reach out to a larger number of consumers and convince them to buy their products.

6. Implications

6.1 Theoretical Implications

This study is one of the very first that review attitude-behaviour inconsistency in context of green purchasing along with various motives, attitudes, behaviours and barriers affecting green purchase behaviour. The study identifies numerous motives and barriers affecting green purchases and offers possible explanations for the observed inconsistency in green purchase behaviour. Further, it provides a comprehensive view of extant literature as it is based on the outcomes of various studies undertaken previously. It presents key constructs that can be considered independent variables in future studies to investigate their influence on green purchases (dependent variable). Surprisingly, the authors found no review paper that addressed attitude-behaviour inconsistencies in the context of green purchase behaviour, although there are empirical studies that focus on various dimensions of green consumption. The identification of various factors (drivers and barriers) in this paper has been done on the basis of the outcomes of numerous studies conducted in various contexts and cultures, and the suitability of these factors should be empirically examined in future research. Researchers may also propose different frameworks and models based on their own outcomes, taking the findings of the present study as a base.

6.2 Managerial Implications

This article has significant managerial implications. It informs policy makers and marketing managers about the key predictors of consumers' green purchase behaviour. Marketers would do well to understand these drivers and barriers to green purchase behaviour as this understanding will enable them to tailor their product offerings and formulate marketing strategies to encourage green buying behaviour. The present study has useful implications for public policy as well. Findings reveal that environmental concerns and values are the prime factors that motivate a consumer to investigate green products. Policy makers should further nurture and develop this tendency through environmental education. Consumers generally remain sceptical of environmental claims made by manufacturers and find it difficult to identify green products. Thus, environmental education should impart knowledge about how a consumer can identify green products.

For manufacturers, the findings imply that consumers prefer a green product with favourable functional attributes. So, a producer or marketer should not only focus on the green characteristics of the product, but also on functional attributes. Companies need to introduce innovative products which combine green and functional attributes. Further, producers and marketers should not only introduce products with eco-labels, but also make efforts to develop consumer trust in the eco-label. To this end, marketers can run campaigns to promote public awareness of eco-labels, inform citizens about the meaning and availability of the eco-labels, and the benefits of using eco-labelled products. Government should also monitor the credibility of the messages carried by eco-labels to ensure that the trust of consumers is not breached. Another significant implication of this study is that consumers will purchase green products if they are available at convenient locations and in variety. Thus, retailers should ensure that their stores contain a variety of green products displayed at convenient and easy to view locations.

7. Conclusion

Major environmental problems and depletion of natural resources forced human civilization to focus on environmentally responsible consumption. More and more organizations are producing environmentally friendly products today and consumers are also showing increased willingness to purchase such products. However, a majority of previous studies report that consumers' favourable attitudes do not translate into actual buying actions and most of the consumers do not purchase green products. This research addresses the need for a review study to examine available literature for determining the various reasons behind the inconsistent behaviour of consumers. To this end, the authors conducted an extensive review of 53 empirical articles on consumer green purchase behaviour and identified major factors influencing consumer green purchase decisions. Further, the authors offer probable explanations for the observed inconsistency in green purchase attitude-behaviour. Additionally, the variables that have received most attention in literature and those that have largely been overlooked were identified.

Environmental concerns, product attributes, environmental knowledge and subjective norms emerged as major drivers whereas high price, low availability and lack of consumer trust in green products emerged as major barriers towards purchase of green products. These results are consistent with those of Smith and Paladino (2010) and Chen (2011), who identified environmental concern and subjective norm as major drivers, and also with those of Young et al. (2010) and Tsakiridou et al. (2008) who recognized price and lack of availability as major barriers towards consumer green purchase behaviour. Results of this study also agree with O’Fallon and Butterfield (2005), who reviewed consumer ethical decision making. The influence of some variables such as specific emotions (guilt, generativity), store related attributes and advertising remain less studied and future research should explore these variables. Also, most empirical articles on green purchasing were found to be dependent on consumers’ self-reported attitudes and practices; hardly any study was found based on observation of consumer behaviour in reality. Future research may observe actual consumer behaviour to get a true picture of how consumers behave in reality.

It has been established in this study that consumers are willing to buy green products although this will somehow does not translate into actual purchases. The reasons for this have been mentioned previously in the study. The authors are of the view that companies offering green products should not view their offering just as a unique product that presents new business opportunities, and overprice the product on the basis of it being ‘green’. The reason is overpricing does hurt the buying capacity of a consumer. For example, how can an average consumer be expected to buy a herbal or green soap that is 5 times the price of an ordinary soap? Such pricing strategies make the product a ‘niche product’ consumable only by a section of society rather than a mass product that can be consumed by everyone. Having said that, pricing is neither the only issue, nor the only solution to the problem. This ‘green thinking’ should be a part of an organization’s work culture and ethics. The company should want to make products that are safe for the environment and accessible to everyone. Unless this willingness is there, the authors don’t see a drastic change in the way affairs are conducted. At the same time, retailers should not stock one or two green products in their stores just as a formality. They should keep a variety of products so that consumers have better and broader choice ranges, thus really encouraging consumers and society to ‘go green’.

Like any research, this study also has some limitations. For this review, the authors tried to be very systematic and accurate in selecting articles, but some shortcomings remain that could be overcome by future studies. The variables identified may have different impacts on individuals from different cultural and social backgrounds. Further, the impact of demographic factors was not considered in this study. Future studies may explore this dimension. Researchers are also encouraged to consider conceptual papers along with empirical studies in future reviews. Finally, future research may also focus on exploring additional factors influencing/causing the reported inconsistency in green purchase behaviour and identifying the influence of factors that have been studied comparatively less in extant literature.

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