

FACTORS AFFECTING CONSUMERS' GREEN PURCHASING BEHAVIOR: AN INTEGRATED CONCEPTUAL FRAMEWORK

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Abstract

In this modern era of societal marketing business ethics and social responsibility are becoming the guiding themes for marketing strategies and practices. Within the field of ethics and social responsibility environmental and green marketing topics are the central topics, which are closely related to biodiversity and sustainability. This paper suggests a different approach to assessing the variables of consumers' green purchasing behavior. Based on thoroughly researched secondary data, this conceptual paper suggests a framework integrating the so far incoherent frameworks as proposed by previous authors. Emanating from this eclectic and chronological literature review, the paper will also propose further missing links that need to be included in the proposed integrated framework. Based on this holistic framework, in a future study, the authors will explain a sustainability index of green consumer behavior, which will be tested empirically in the study. In fact, from the proposed integrated framework, in total eight vital factors/aspects of green/environmental issues are likely to have an impact on consumer green purchasing behavior. Demographic variables will play an intervening or mediating role in the framework.

Keywords: pro-environmental consumer behaviour, sustainability, green consumer behavior, green purchasing

JEL Classification: Q56

Introduction

Public concern for environmental issues has gradually but steadily increased over the past three decades since the inception of Earth Day (Kim and Choi, 2005) appealing to preserve nature and biodiversity. Linking to consumer behavior, over 70 percent of Americans, for example, reported that they were in support of environmental protection, and 49 percent said that they would avoid purchasing products that are potentially harmful to the environment (Hueber, 1991). As a consequence, marketers have reacted to consumers'

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growing environmental consciousness by developing 'environmental friendly' products (Kohl, 1990). Interestingly, however, there seems to exist a cognitive dissonance as only a few 'green' products have been successful so far (Reitman, 1992) despite the vast majority of consumers reporting that their purchases were influenced by environmental concerns (Chase and Smith, 1992). Little empirical evidence exists as to translating those pro-environmental attitudes and beliefs into environmentally conscious behavior (Crane, 2000) such as green buying and recycling (Hume, 1991). Considering the issue in mind, this paper ventures to propose a refined integrated framework regarding consumer green purchasing behavior index. This framework/index is expected to provide clear direction to the researchers and practitioners about some most vital/significant issues of green consumer behavior. The future researchers in the field may consider this framework in their further empirical studies to test its applicability in their research context.

1. Pro-environmental consumer behavior

It is notable that pro-environmental behaviors differ from general purchase-related consumer behaviors. General purchase behavior is driven by an assessment of its benefits and costs that are of immediate relevance solely to the individual consumer performing the behavior. By contrast, environmentally conscious behavior is unlikely to deliver instant personal gain or gratification, but rather a future-oriented outcome (e.g. cleaner environment) that often benefits society as a whole (Mc Carty and Shrum, 2001; Kim and Choi, 2005). However, during the very recent periods, it can be observed that the current environmental dreadful conditions are ever more menacing consumer health and wellbeing globally. Therefore, consumers are becoming more sensitive in their environmental attitudes, preferences and purchases (Sarigollu, 2009). Over the past few decades, environmental problems and issues have been extensively recognized and discussed. A large number of respondents all over the world state that they are concerned or very concerned with environmental problems (Dunlap and Mertig, 1995; Diekmann and Franzen, 1999). Customers are ever more aware of the seriousness of the environmental degradation, resulting more ecologically consciousness and desire to purchase eco-friendly products and services, favoring businesses that prefer environmental practice (Roberts, 1996; Kalafatis et al., 1999; Laroche et al., 2001).

Accordingly, academic research in this area has centered on the identification of consumer motivation underlying pro-environmental behaviors (e.g. Bagozzi and Dabholkar, 1994; Lee and Holden, 1999) and the explanation of the relationship between cognitive or motivational factors and environmentally conscious behavior (e.e., Dietz, Stern and Guagnano, 1998; Karp, 1996; Mc Carty and Shrum, 1993 and 1994). Despite the continued efforts, it is still difficult to predict consumers' pro-environmental behavior. Over the last 30 years, many psychologists and sociologists have explored the roots of direct and indirect environmental action. The answer to the questions of "Why do people act environmentally friendly" and "What are the barriers to pro-environmental behavior?" is extremely complex. Numerous theoretical frameworks have been developed to explain the gap between the possession of environmental knowledge and environmental awareness, and actually displaying pro-environmental behavior. For example, Dunlap and Mertig (1995), Dunlap, Van Liere, Mertig and Jones (2000), Kaplan (2000) and Ali, Khan and Ahmed (2011) reported that though a lot of people are aware of and concerned about environmental issues, this does not always reflect in pro-environmental behavior. In this way, although,

many hundreds of studies have been done, no definite answers have been given yet (Kollmus and Agyeman, 2002).

The following section discusses the different prior studies and theoretical frameworks regarding the consumers' green/environmental purchasing behaviour. The main goal will be to develop an integrated framework and a hypothesized sustainability index. Kim and Choi (2005) identified three factors that usually affect consumers' pro-environmental behavior. These three factors are collectivism, environmental concern and perceived consumer effectiveness (PCE). Mostafa (2009) holds altruism, environmental concern, environmental knowledge, skepticism towards environmental claims, environmental attitudes to be the main factors that may affect consumers' green purchasing behavior. In addition, Ahmad and Juhdi (2008) notified that perception towards organic food, awareness on government action and support, beliefs about product safety for use, belief about product friendliness to environment, availability of product and product information are the most influential factors that affect consumers' pro-environmental behavior. Partially confirming the view of Ahmad and Juhdi, Panni (2006) as well as Ismail and Panni (2008) notified that availability of information on green products as well as the availability of such products significantly influences consumers' pro-environmental behavior. From these studies a modified indexed has been created. The different issues/variables of the consumers' green purchasing behavior are going to be discussed one by one.

2. Environmental knowledge

Kempton et.al (1995) notified that most people do not know enough about environmental issues to act in an environmentally responsible way. Environmental knowledge can be defined as "a general knowledge of facts, concepts, and relationships concerning the natural environment and its major ecosystems (Fryxell & Lo, 2003, p. 45). In other words, environmental knowledge involves what people know about the environment, key relationships leading to environmental aspects or impacts, an appreciation of "whole systems", and collective responsibilities necessary for sustainable development. Rokicka (2002) found that attaining a high level of environmental knowledge produces much better pro-environmental behavior. Concordantly, Mostafa (2009) found that environmental knowledge has a significant impact on the consumers' intention to buy green products. So from the above discussion the first hypothesis for a correlated set of consumer behavior variables can be developed:

H1: Environmental knowledge has a significant positive effect on the consumers' green purchasing behavior.

3. Altruism

Based on the view that altruism is a subset of pro-social behavior, Schwartz' (1977) theory of altruism suggests that pro-environmental behavior becomes more probable when an individual is aware of harmful consequences to others and when that person takes responsibility for changing the offending environmental condition. Vice versa, pointing to the detrimental influence of individualism in this context, Borden and Francis (1978) hypothesize that:

- Persons with a strong selfish and competitive orientation are less likely to act ecologically;

- People who have satisfied their personal needs are more likely to act ecologically because they have more resources (time, money and energy) to care about bigger, less personal social and pro-environmental issues.

Relating back to Schwartz' work, the study of Stern, Dietz & Kalof (1993) examined the role that social altruism (concern for the welfare of others) and biospheric altruism (a concern for the non-human elements of the environment) play in influencing green behavior. The findings suggest that the two constructs positively influence consumers' green behavior. In the same vein, Mostafa (2009) found that altruism has a significant positive influence on the intention to buy green products. From the above discussions the second hypothesis for a correlated set of consumer behavior variables can be developed:

H2: There is a positive relationship between altruism and consumers' green purchasing behavior.

4. Environmental awareness

Environmental awareness is defined as "knowing the impact of human behavior on the environment". Environmental awareness has both a cognitive, knowledge-based component and an affective, perception based component (Kollmuss and Agyeman, p. 253). Panni (2006) found, that the more the consumers are aware regarding the societal and environmental issues the more they are involved in pro-social and pro-environmental behavior. From the above discussion the third hypothesis for a correlated set of consumer behavior variables can be developed:

H3: Environmental awareness is positively associated with consumers' green purchasing behavior.

5. Environmental concern and attitude

Fundamental to environmental research is an individual's concern for the environment (Hines et al., 1987). Based on the pioneering research of Dunlap and Van Liere (1978), environmental concern is defined as a global attitude with indirect effects on behavior through behavioral intention. Crosby, Gill and Taylor (1981) mentioned that environmental concern is a strong attitude towards preserving the environment. Attitudes are defined as the enduring positive or negative feeling about some person, object, or issue. In fact, it refers to the information a person has about a person, object, or issue (Newhouse, 1991). The social psychology literature on behavioral research has established attitudes as important predictors of behavior, behavioral intention, and explanatory factors of variants in individual behavior (Kotchen & Reiling, 2000). In many studies both these factors have been found to be important/significant predictors of consumer pro-environmental behavior. For example, an individual's concern level as to environmental issues has been found to be a useful predictor of environmentally conscious behavior, i.e. recycling behavior (Arbuthnot and Ligg, 1975; Kellgren and Wood, 1986; Simmons and Widman, 1990) and green buying behavior (Chan, 1996; Donation and Fitzgerald, 1992; Kerr, 1990; Ottman, 1993; Schlossberg, 1992). Environmental concern has been traditionally viewed as a uni-dimensional construct ranging from unconcerned about the environment at the low end to concern at the high end, as measured by the new environmental paradigm (Milfont &

Duckitt, 2004). Academic studies examining environmental concern include that of Fritzsche and Dueher (1982) who examined the effects of concern for the environment on the choice of deodorant container and that of Kinneer and Raylor (1973) who examined the effects of ecological concern on attitudes towards phosphates in laundry detergents. Other studies include, for example, that of Prothero and Mc Donald (1992) examining green cosmetics and toiletries and that of Barr, Ford and Gilg (2003) examining recycled packaging. Seguin, Pelletier and Hunsley (1998) have argued that environmental concern can have a significant bearing on the degree to which individuals are motivated to change behavioral practices so as to attempt to alleviate the problem. In a number of studies, environmental concern has been found to be a major determinant of buying organic and green food (e.g. Grunert, 1993). Hines, Hungerford & Tomera (1987) argued that environmental concern has a direct relationship with pro-environmental behavior. Predictably, people's level of environmental concern is linked to their interest in and willingness to purchasing green products (Biswas, Liecata, Mckee, Pullig and Daughtridge, 2000; Mainieri, Barnett, Unipan and Oskamp, 1997; and Schwepker and Cornwell, 1991). Mainieri et al. (1997) argued that consumers with a stronger concern for the environment are more likely to purchase products as a result of their environmental claims than those who are less concerned about the environmental issues. Kim and Choi (2005) found that environmental concern directly influences green buying behavior. Similarly, many studies have specifically focused on the relationship between environmental attitudes and environmentally related behaviors. Consumer attitudes have also been used in past studies to predict energy conservation and ecologically conscious purchase and use of products (Mostafa, 2009). Kassarian (1971) studied consumers' reaction towards a gasoline that reduced air pollution and found that attitude toward air pollution was the most important variable in determining consumers' behavior toward the product. In a study conducted in Germany, Balderjahn (1988) found that a positive attitude toward ecologically conscious living resulted in ecologically responsible buying and using of products, including the use of automobiles. It also prompted consumers to publicly show environmental concern by signing ecologically relevant petitions and supporting or joining an antipollution organization. The usual findings reveal a strong association between environmental attitude and ecological behavior (e.g. Lynne and Rola, 1988). However, a number of studies have found either a moderate relationship between environmental attitude and ecological behavior (e.g. Axelrod and Lehman, 1993 and Smith et.al, 1994) or a weak relationship (e.g. Berger & Corbin, 1992). Beckford et al. (2010) and Cornelissen et al. (2008) also found in their studies that environmental attitude has a significant impact on consumer environmental/green purchasing behavior. Mostafa (2009) found that both environmental concern and attitude have significant positive effect on the consumers' intention to buy green products. So from the above discussion the fourth hypothesis for a correlated set of consumer behavior variables can be developed:

H4: Environmental concern and attitude positively influence consumers' green purchasing behavior.

6. Availability of product information and product availability and belief about product safety for use

Empirical evidence shows that consumers' difficulty in locating environmentally directed products is partly due to a lack of information (Brown and Wahlers, 1998). Some studies

have identified that a lack of green and organic food availability in store is considered as one of the barriers to consumer purchase (Byrne et.al, 1991; Davies, 1995). Availability refers to the level of ease or difficulty to obtain or consume a specific product. Vermeir and Verbeke (2004) argued that many consumers have motives to buy green products but it does not translate in the purchasing behavior due to low availability. Mainieri et al. (1997) also argued that the reason why the consumers' environmental consciousness lagged behind the pro-environmental behavior is the inadequate availability and marketing of the environmental friendly products. Besides, it can be said that in order to contribute making the consumers environmentally responsible, adequate availability of the product and the existence of environmentally and socially responsible companies are required. On the other hand, it should also be noted that the environmental claims have to be genuine and should not create any confusion in order to motivate them towards environmental purchasing behavior. Recently, Ismail and Panni (2008), Ismail, Panni and Talukder (2006) and Panni (2006) confirmed that the availability of green products is necessary to make the consumers involved in pro-social/pro-environmental behavior. However, when this information about green/organic food becomes available, it usually turns into knowledge to the consumers. In order to involve mass consumers in the green buying process, it is required to have a massive promotional campaign on these products to illustrate their safety issues and health friendly attributes to the consumers as numerous studies have found that belief about product safety is an important factor to be involved in pro-environmental purchasing. Many authors like Henson (1996), Gil et.al (2000), Canavari et.al (2003), Smed and Jensen (2003), Pickett-Baker, Ozaki (2008) and Banyte, Brazioniene and Gadeikiene (2010) notified that consumers' willingness to pay for quality and safe/ environmental friendly products may usually involve them in pro-environmental purchasing. Panni (2006) notified that consumers are concerned and aware regarding different adulteration practices done by the unethical marketers. Ahmad and Juhdi (2008) found that belief about product safety for use has a significant positive impact on consumers' intention to buy green and organic products since one of the most common mentioned reasons for purchasing organic products is that it is perceived as healthier than conventional alternatives (Chinnici et.al, 2002; Harper and Makatouni, 2002), which in turn influences green buying behaviour. So from the above discussion the fifth hypothesis for a correlated set of consumer behavior variables can be developed:

H5: Availability of product information and belief about product safety for use has a positive influence on consumers' green purchasing behavior.

7. Perceived Consumer Effectiveness (PCE)

Perceived Consumer Effectiveness (PCE) refers to the extent to which individuals believe that their actions make a difference in solving a problem (Ellen, Weiner and Cobb-Walgren, 1991). Accordingly, Kim and Choi (2005) argued, that individuals with a strong belief that their environmentally conscious behavior will result in a positive outcome, are more likely to engage in such behaviors in support of their concerns for the environment. Hence, self-efficacy beliefs may influence the likelihood of performing green purchase behavior. From the above discussion the sixth hypothesis for a correlated set of consumer behavior variables can be developed:

H6: Perceived Consumer Effectiveness (PCE) has a positive association with consumers' green purchasing behavior.

8. Collectivism

Individualistic or collectivistic orientations have been found to influence a variety of social behaviours. Likewise, person-level tendencies of individualism or collectivism appeared to influence their motivation to engage in environmentally conscious behaviours. McCarty and Shrum (1994, 2001) found a positive impact of collectivism on consumer beliefs about recycling and their recycling behaviour. This implies that collectivistic persons are more likely to engage in recycling behaviours because they tend to be more co-operative, willing to help others, and emphasize group goals over personal ones. By contrast, people with individualistic tendencies tend to view recycling less important (McCarty and Shrum, 2001) and are less likely to participate in behaviours for resource conservation (Dunlap and Van Liere, 1984). Similar results were also found for ecological commitments (Li, 1997). Confirming the findings of the aforementioned authors, Kim and Choi (2005) concluded that collectivism has an influence on the consumers' green buying behaviour. From the above discussion the seventh hypothesis for a correlated set of consumer behavior variables can be developed:

H7: Collectivism has a positive influence on consumers' green purchasing behaviour.

9. Transparency/Fairness on Trade Practices:

In aspect of fair trade, AIM-the European Brands Association (2002) prepared a paper on the fairness of trade in order to meet the consumers' current and future needs and by its of consumer rights and interests. According to AIM there are several categories of unfairness which are as misleading practices, failure to provide material information to the consumers, undue influence and complaint handling and after sales service.

According to Kaynak(1985); Quazi(2002) and Sherlaker (1999), the fairness on trade practices construct which are also termed as the micro issues of consumerism consider various exploitative business practices among which the mostly discussed issues are misleading advertising, deceptive packaging, unfair pricing, customer care, product adulteration, black marketing, etc.

Misleading Advertisement

Koslow (2000); and Maronick (1991) argued that deceptive or misleading advertising is or should be legally defined as, "the standard that is generally relied on what a reasonable consumer would take away from an advertisement under the circumstances." Knauer (1973) mentioned that Public Interest Representation, a public interest law group at Georgetown University Law center, analyzed the documentation for 59 television ads and found that 41 were not substantiated by data submitted to the Federal Trade Commission (FTC). In the same literature it was mentioned that the U.S. National Business Councils' recommendations were indirectly endorsed in a 1972 by the American Management Association (AMA). According to AMA, "companies that desire a high degree of honesty, that have clear-cut and definite objectives, that have communicated to their agency exactly

what they expect will no doubt have fewer problems if any, with the FTC consumers and its sales objectives.”

According to Knauer (1973), the National Business Council's advertising reported the following issues: “Advertising should avoid the use of claims whose validity depends upon fine interpretation of meaning. Furthermore it also stated that advertising shall not claim nor promise by implication any product performance or characteristic which is not fully supported by test or research data or other similar factual information and the test of whether anything is permissible in advertising under the policy is to ask whether it is true, believable and good taste”.

Attas (1999) argued in this context that an advertisement will be deemed misleading or deceptive only if it is reasonable to expect that persons exposed to it, or those targeted by it, would come to hold false beliefs as a result of exposure to it. The reasonable person would be misled by the advertisement meaning that the probability that a consumer would be misled by the advertisement is sufficiently high. This has sometimes been understood as the statistical assertion that a sufficiently high percentage of the exposed consumers would be misled by the advertisement. He further added that a misleading advertisement is one that causes a distorted perception and for which the advertiser is considered responsible. It could be that the consumer misled by an advertisement will be tempted to buy the advertised product and in that way either getting less than he thought he would or paying more than he should.

Deceptive Packaging

Attas(1999) argued that the term “deceptive” comes from to deceive which to intentionally cause a person to hold false beliefs. The notion of deceit can be categorized in two aspects:

- Deceit can be non-verbal as well as verbal.
- Deception implies success in causing someone to hold a false belief. Deceit is an outcome concept; it is necessary to look at the outcome of whether there would be deceived person actually comes to hold false beliefs in order to determine whether or not deception has taken place. Deceit is intentional; it is the purpose of the deceiver to cause another person to hold false beliefs.

Whereas packaging refers to the term used for containers and wrapping materials that protect, contain, identify, promote and facilitate the use of the product. While a label is an informative tag, wrapper, or seal attached to the product or the products' package (Mason, Rath, Husted and Lynch, 1995). So the deceptive packaging can be termed as the packaging which is used by the companies or marketers that will contain false identity, faulty information and which will unfairly promote the products to the consumers. Faruque (2003); and Mann and Thornton (1978) indicated deceptive packaging as one sort of unscrupulous practice done by the marketers whereby the faulty product information or misinformation is provided on the label or package in order to deceive consumers. In respect of green issue/ green marketing deceptive packaging refers to the false and misleading information about the greenness of the product on its label and package. The common practices are false green/organic claim on its label/package, exaggerated green claims on its label or package etc.

Customer care

Customer care is a very important issue for any business in satisfying their customers because proper customer care can create an image to the customers as the ethical and social responsible firm. Berkman and Gilson (1978); and French et.al. (1982) defined customer care as the companies' engagement in complaint handling and after sales service to the customers.

Sherlaker (1999) mentioned that as a practical solution for establishing better rapport with the consumer, it is suggested that every manufacturer, especially for consumer goods, establish a consumer affairs cell (CAC). The main objectives of this cell would be to become more responsive to the valid grievances of consumers with resolving customer complaints promptly. Furthermore they should also act promptly in disseminating consumer information; advising management on consumer issues especially relating to green products; dealing with/providing liaison to outside consumer interest groups and also to educate consumers about their rights and responsibilities. This can ultimately make the consumers aware regarding the green issues, green products and green marketing in order to involve them in responsible and green purchasing.

Product adulteration

This is one sort of malpractice done by the marketers whereby they mix artificial substances in the product as well as offer the low-standard products to the consumers in order to deceive them. In fact, product adulteration refers to one sort of malpractice done by the marketers whereby the marketers debase the products by mixing inferior or spurious ingredients (Samsad Dictionary, 2005). Memery et.al. (2005) mentioned the adulterated food in which additives, preservatives, artificial colors or flavouring are applied. In respect of green issues/marketing, product adulteration refers to the mixing of excessive preservatives, additives or artificial color that usually enables the shoppers to present their products to their customers as green products. However, these excessive additives are very harmful for the consumers and usually spoil the natural substance of the products.

Black Marketing

Black Marketing is another sort of unfair business practice. Kaynak (1985), Quazi (2002), and Sherlekar (1999) mentioned that different types of black marketing involves in short weights and measures of products, deliberate stocking out of product or hoarding etc. In respect of green marketing, the major concerns are deliberately stocking out of green, natural and organic food in order to hike the price of such products etc.

Unfair Pricing/Price Sensitivity and Transparency in Pricing

Unfair pricing is also a burning consumerist issue. A variety of authors (French et.al., 1982; Kaynak, 1985; Sherlekar, 1999; Lisa, 2004) discussed the topic of unfair pricing which can be defined as charging either an excessive price compared to its original price or charging fictitious pricing. Marketers have found, that even when consumers profess strong support for environmental protection, they are still extremely price sensitive when it comes to buying green (Mainieri et al. 1997). Indeed, the perception among Washington residents that recycled-content products are more expensive created a barrier for them in purchasing these products (Mc Kenzie-Mohr, 2000). These studies also reported, that in most of the cases marketers usually try to charge excessive price for green products in an unjustified and non transparent way. This may demotivate and discourage customers to be involved in green purchasing behavior.

From different prior studies conducted by Uusitalo and Oksanen (2004); Carrigan and Attalla (2001); Ismail and Panni (2008) and Panni (2006) it has been found that the more the consumers will perceive that the firms are involving in unethical/unfair practices the more they will feel discouraged to be involved in green and socially responsible consumption. Numerous scholars claim that consumers' black lash to environmental marketing is due to false, unsubstantiated or exaggerated claims (Carlson, Stephen and Kangun, 1993). Davis (1991) states that terms such as 'biodegradable', 'recyclable' and 'environmentally friendly' have been used by many firms for describing benefits, which were unproven, inconclusive, or unrealistic. Calfee and Ringold (1988) argued that consumers are by nature skeptical of environmental claims unless they have credible bases for evaluating the claims. The majority of the studies argue that consumers' skepticism regarding the environmental claims as well as the lack of real existence of environmental sound companies discourage them to become environmentally conscious or ethical customers. The Environmental Research Association finds that many consumers are dubious about the environmental claims of corporations and often see them as mere gimmickry (Fierman, 1991; and Mirvis, 1994) which often prevents them from pro-environmental purchasing. A variety of polls and surveys indicate Americans' distrust on advertisement and labeling claims pertaining to the environment (Ellen, Wiener and Cobb-Walgren, 1991; Shrum, Mc Carty, Lowrey, 1995; Mc Kenzie-Mohr, 2000). In an Advertising Age Poll, more than half of the respondents responded that they paid less attention to environmental advertising claims because of overkill, and most respondents reported that environmental claims were not particularly believable (Shrum et.al, 1995). A Gallup Survey (1995) also reported that the majority of the consumers were found to be environmentally conscious. However, it has been also found that the consumers' distrust on the environmental claims and the doubts about the existence of the environmental friendly companies usually create a negative impact on the consumer pro-ethical or pro-environmental behavior (Ellen et.al, 1991; Mc Kenzie-Mohr, 2000; Shrum et.al, 1995; and Papadopoulos et al., 2009). Catoi, Vranceanu and Filip (2010) confirmed in an empirical study that price fairness in business practices has a direct influence on perceived value and on buying intentions. In other words we can say that the more the consumers will perceive that firms are involved in fairness on trade practices/transparency in business practices the more they will feel encouraged to be involved in green and socially responsible purchasing. This is because the consumers usually become discouraged to be involved in green and socially responsible purchasing if they are unable to make a pro-ethical choice. From the above discussion the eighth hypothesis for a correlated set of consumer behavior variables can be developed:

H8: Transparency/Fairness on business practices positively affects consumers' green purchasing behavior.

10. Demographic Factors

From different prior studies it can be concluded that demographic variables have a significant impact on the consumers' pro-environmental/green purchasing behavior. Harris et.al (2000) notified that the environmental conscious consumers are white, female, professional and younger. Kollmuss and Agyeman (2002) indicated the demographic factors to be one of the most influencing factors in pro-environmental behavior. Hustad and Pessemier (1973) found that women's education level has to be high to become consumerist/environmental conscious consumers. Webster (1975) also found that socially

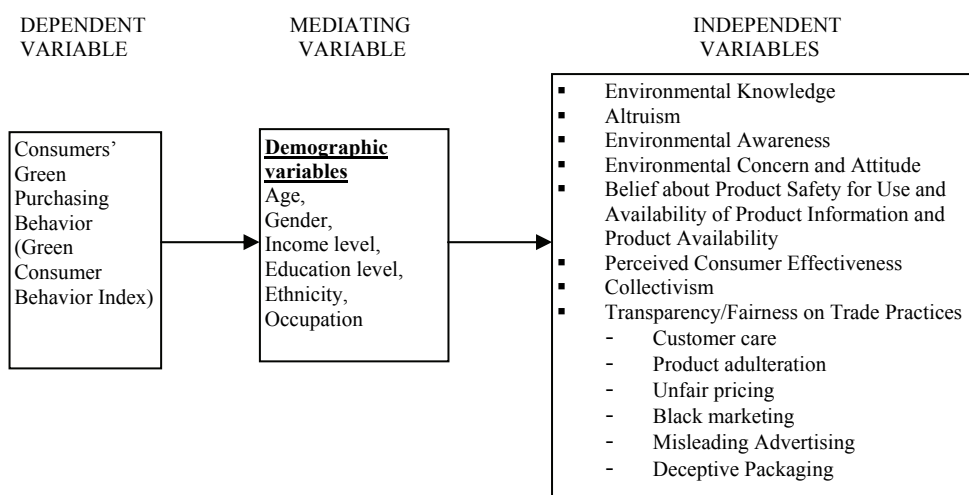
conscious consumers typically are female. According to Knauer (1971), consumers who most often report deception and misrepresentation are high income women. Ruiz, Arcas and Cuestas (2001) argued that gender plays an important role to be consumerists and environmental conscious consumers. Berkowitz and Lutterman (1968) and Bourgeois and Barnes (1979) agree on the consumerists/environmental conscious consumers to be better educated and younger. Berkowitz and Lutterman (1968) as well as Hustad and Pessemier (1973) identified the education level as an important factor for the consumers to be concerned with the consumerist/environmental issues. Barksdale and Darden (1972), in line with Berkman and Gilson (1978) hold, that the individuals, who are most likely to express consumerist views, are younger. Consumerists exhibit higher socio-economic profiles (Anderson and Cunningham, 1972; Hustad and Pessemier, 1973; Kinnear et.al. 1974; Bourgeois and Barnes, 1979; Uusitalo and Oksanen (2004). Memery et.al. (2005) argued that demographic characteristics including race/ethnicity should be considered as an important factor when profiling consumerists and pro-environmental consumers. Panni (2006) found that consumers' pro-social or pro-ethical behaviors are heavily influenced by demographic characteristics in terms of age, income level, education level and occupation.

From different prior studies (Panni, 2006 and Kollmuss and Agyeman, 2002) it can be concluded, that, if there are any different sorts of variables which are different in types/categories of the independent variables, such variables are often termed as mediating variables, which mediate between the independent and the dependent constructs. From the above discussion the ninth hypothesis for a correlated set of consumer behavior variables can be developed:

H9: Demographic variables play the role of a mediator between the dependent variable (green consumer behavior index) and the independent variables (green consumer behavior variables).

Synthesizing on the literature review, an integrated framework of variables explaining green consumer behavior is depicted in figure no. 1.

Figure no. 1: Schematic Diagram of the Integrated Conceptual Framework



11. Result and discussion

As already mentioned, the conceptual framework of the paper is developed on the basis of thoroughly researched secondary data, which has integrated the so far incoherent frameworks as proposed by previous authors. In fact, during the extensive literature survey it has been found that previous studies proposed different aspects/issues on the green consumer behavior in a very scattered manner. For example, Kim and Choi (2005) identified three factors that usually affect consumers' pro-environmental behavior. These three factors are collectivism, environmental concern and perceived consumer effectiveness (PCE). Mostafa (2009) holds altruism, environmental concern, environmental knowledge, skepticism towards environmental claims, environmental attitudes to be the main factors that may affect consumers' green purchasing behavior. In addition, Ahmad and Juhdi (2008) noted that perception towards organic food, awareness on government action and support, beliefs about product safety for use, belief about product friendliness to environment, availability of product and product information are the most influential factors that affect consumers' pro-environmental behavior. Other than these, only a few literatures in the body of knowledge (please refer to the demographic literatures and hypothesis) tried to show and discuss the impact of demographic variables on consumers' green purchasing behavior. All these issues are actually very much interrelated and are required to be integrated to develop a more detail framework that will organize all the vital issues/variables of green consumer behavior and define a comprehensive set of hypothesized explanatory variables which this conceptual framework has addressed. This has certainly closed the gap in the existing literature and the body of knowledge.

Conclusion

Based on a comprehensive literature review, this paper, innovatively, provides an integrated and comprehensive set of hypothesized explanatory variables of green consumer behavior. It is regarded as the basis for a consensus among the partners of the value chain for green products on consumer behaviour in this sensitive field. Hence, this information is an invaluable source which should inform marketing strategies and tactics of companies operating in the green product business. Later research of the authors aims at explaining a newly created sustainability index for green consumer behaviour (consisting of concrete measures of green consumer behaviour) based on the explanatory consumer behaviour related variables provided in this paper. This index creation and explanation can be regarded as a contemporary longitudinal study as it validates previous research findings. This inferential research will also elicit the weight of the respective independent variables. Beyond consumer behaviour related variables, this further research of the authors will, furthermore, embrace other value chain related factors which affect environmental sustainability overall. These factors are suggested to be derived from concepts related to food and drink safety, entrepreneurship, quality management and benchmarking, waste and energy management, free trade, corporate culture, corporate social responsibility, green marketing (i.e. use of additives and preservatives, ecological packaging, branding, biodegradable/recyclable packaging) or sociological concepts such as culture and identity. Summarizing, further research aims at providing valuable information of the value chain for green products entailing a set of criteria that will be applied in order to quantify the level of environmental sustainability actions taken within the green product business. In doing so, in the later stages the authors will conduct empirical research to test the

hypothesized index developed from this study. The authors have planned to apply data and methodological triangulation in their study in order to generate more valid and reliable findings. Data triangulation will be used in order to have views from the consumers as well as industrial experts and players. Methodological triangulation will be applied in order to generate findings from both qualitative and quantitative study. Since from this paper it has been found that there was a serious knowledge gap of having a proper comprehensive integrated model (which this paper has tried to address) the authors will conduct a qualitative study in the preliminary/earlier stage of their research in order to ensure and confirm the appropriateness/suitability of their model. Then in the later stage of the empirical study, a quantitative research study will be carried out to finally test and validate the research model and the hypothesized index. Finally, the outcome of the empirical study will be explained from the managerial point of view.

References

- Ahmad, S.R.B. and Juhdi, N., 2008. *Consumer's perception and purchase intentions towards organic food products: Exploring the attitude among Malaysian consumers*. [online] Available at: <http://www.pbfeam2008.bus.qut.edu.au/papers/documents/SitiNorBayaahAhmad_Final.pdf> [Accessed 17 February 2010].
- Ali, A., Khan, A.A. and Ahmed, I., 2011. Determinants of Pakistani consumers' green purchasing behavior: Some Insights from a developing country. *International Journal of Business and Social Science*, 2(3), pp. 217-226.
- Arbuthnot, J. and Sandra, L., 1975. A comparison of French and American Environmental Behaviors, Knowledge and Attitudes. *International Journal of Psychology*, 10(4), pp. 275-281.
- Attas, D., 1999. What's wrong with "deceptive" advertising? *Journal of Business Ethics*, 21(1), pp. 49-60.
- Axelrod, L.J. and Lehman, D.R., 1993. Responding to environmental concerns: What factors guide individual action? *Journal of Environmental Psychology*, 13(2), pp. 149-159.
- Bagozzi, R.P. and Pratibha A.D., 1994. Consumer recycling goals and their effect on decisions to recycle: A means-end chain analysis. *Psychology and Marketing*, Iss 11, pp. 313-340.
- Balderjahn, I., 1988. Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns. *Journal of Business Research*, 17(8), pp. 51-56.
- Bamberg, S., 2003. How environmental concern does influences specific environmentally related behaviors? A new answer to an old question. *Journal of Environmental Psychology*, 23(1), pp. 21-32.
- Banyte, J., Brazioniene, L. and Gadeikiene, A., 2010. Expression of Green Marketing Developing the Conception of Corporate Social Responsibility. *Inzineine Ekonomika-Engineering Economics*, 21 (5), pp. 550-560.

- Barksdale, H.C. and Darden, W.R., 1972. Consumer attitudes towards marketing and consumerism. *Journal of Marketing*, 36 (4), pp. 28-35.
- Barr, S., Ford, N.J. and Gilg, A., 2003. Attitudes towards recycling household waste in Exeter, Devon: Quantitative and qualitative approach. *Local Environment*, 8(4), pp. 407-421.
- Beckford, C.L., Jacobs, C., Williams, N. and Nahdee, R., 2010. Aboriginal Environmental Wisdom, Stewardship and Sustainability: Lessons from the Walpole Island first nations, Ontario, Canada. *The Journal of Environmental Education*, 41(4), pp. 239-248.
- Berger, I. and Corbin, R., 1992. Perceived consumer effectiveness and faith in others as moderators of environmentally responsible behaviors. *Journal of Public Policy and Marketing*, 11(2), pp. 79-89.
- Berkowitz, L. and Lutterman, K.G., 1998. The traditional socially responsible personality. *Public Opinion Quarterly*, 32(2), pp. 169-185.
- Berkman, H.W. and Gilson, C.C., 1978. *Consumer behavior-concepts and strategies*. 7th ed. Belmont, California: Dickenson.
- Bordon, R.J. and Francis, J.L., 1978. Who cares about ecology? Personality and sex difference in environmental concern. *Journal of Personality*, 46(1), pp. 190-203.
- Biswas, A. et al., 2000. The recycling cycle: An empirical examination of consumer waste recycling and recycling shopping behaviors. *Advertisement and Environmental issues*, 19(1), pp. 93-115.
- Bourgeois, J.C. and Barnes, J.G., 1979. Viability and profile of the consumerist segment. *Journal of Consumer Research*, Iss. 5, pp. 217-227.
- Brown, J. D. and Russell G. W., 1998. The environmentally concerned consumer: An explanatory study. *Journal of Marketing Theory and Practice*, 6(2), pp. 39-48.
- Byrne, P.J., Toensmeyer, U.C., German, C.L. and Muller, H.R., 1991. Analysis of consumer attitude toward organic produce purchase likelihood. *Journal of Food Distribution Research*, 22(2), pp. 49-62.
- Calfee, J. and Ringold, D., 1988. Consumer skepticism of advertising: What do the polls show? In: M.J Houston, ed. 1988. *Advances in consumer research*. Provo, UT: Association for Consumer Research, pp. 244-248.
- Canavari, M., Nocella, G. and Scarpa, R., 2003. Stated willingness to pay for environment-friendly production of apples and peaches: web-based vs. in person surveys. In: EAAE, the 83rd EAAE Seminar. Chania, Greece, 4-6 September 2003. s.l: s.n.
- Carlson, L., Stephen, J. and Kangun, N., 1993. A content analysis of environmental advertising: A matrix approach. *Journal of Advertising*, 22(3), pp. 27-40.
- Catoiu, I., Vranceanu, D.M. and Filip, A., 2010. Setting fair prices - Fundamental principle of sustainable marketing. *Amfiteatru Economic*, XI(27), pp. 115-128.
- Chan, T.S., 1996. Concerns for environmental issues and consumer purchase preferences: A two country study. *Journal of International Consumer Marketing*, 9(1), pp. 43-55.

- Chan, R.Y.K. and Lam, J.C., 2002. Prediction of pollutant emission through electricity consumption by the hotel industry in Hong Kong. *International Journal of Hospitality Management*, Iss. 21, pp. 381-391.
- Chase, D. and Smith, T.K., 1992. Consumers keen on green but marketers don't deliver. *Advertising Age*, 63(29), pp. 2-4.
- Chinnici, G., Amico, M. and Pecorino, B., 2002. A multivariate statistical analysis on the consumers of organic products. *British Food Journal*, 104(3-5), pp. 187-199.
- Cornelissen, G., Pandelaere, M., Warlop, L. and Dewitte, S., 2008. Positive cueing: Promoting sustainable consumer behaviour by cueing common environmental behaviours as environmental. *International Journal of Research in Marketing*, Iss. 25, pp. 46-54.
- Crane, A., 2000. Facing the backlash: Green marketing and strategic reorientation in the 1990s. *Journal of Strategic Marketing*, 8(3), pp. 277-296.
- Crosby, L.A., Gill, J.D. and Taylor, J.R., 1981. Consumer voter behaviour in the passage of the Michigan Container Law. *Journal of Marketing*, Iss. 45, pp. 349-354.
- Davies, A., Titterton, A.J. and Cochrane, C., 1995. Who buys organic food? A profile of the purchasers of organic food in Northern Ireland. *British Food Journal*, 97(10), pp. 17-23.
- Davis, J., 1991. A blueprint for green marketing. *Journal of Business Strategy*, Iss. 12, pp. 81-87.
- Diekmann, A. and Franzen, A., 1999. The wealth of nations and environmental concern. *Environment and Behavior*, 31(4), pp. 540-549.
- Dietz, T., Paul C.S. and Gregory A.G., 1998. Social structural and social psychological bases of environmental concern. *Environment and Behavior*, 30 (4), pp. 450-471.
- Donation, S. and Kate F., 1992. Polls show ecological concerns is strong. *Advertisement Age*, 63 (June 15), pp. 49.
- Dunlap, R. E. and Kent D. V. L., 1978. The new environmental paradigm. *Journal of Environmental Education*, 9 (4), pp. 10-19.
- Dunlap, R.E. and Mertig, A.G., 1995. Global concern for the environment: Is affluence a prerequisite? *Journal of Social Issues*, 51(4), pp. 121-137.
- Dunlap, R.E., Van Liere, K.D., Mertig, A.G. and Jones, R.E., 2000. Measuring endorsement of the new ecological paradigm: A revised NEP scale. *Journal of Social Issues*, 56(3), pp. 425-442.
- Ellen, P.S., Wiener, J.L. and Cobb-Walgren, C., 1991. The role of perceived consumer effectiveness in motivating environmentally conscious behaviours. *Journal of Public Policy and Marketing*, 10 (2), pp. 102-117.
- Faruque, Q., 2003. Consumer rights: Where do we stand?, *The Daily Star*, [online] Available at: <<http://www.thedailystar.net/law/200309/01/index.htm>> [Accessed 22 June 2005].

- Fierman, J., 1991. The big middle in green marketing. *Fortune*, 3, June Iss., pp. 91-101.
- French, W.A., Barksdale, H.C. and Perreault Jr, W.D., 1982. Consumer attitude towards marketing in England and the United States. *European Journal of Marketing*, 16(6), p. 20.
- Frietzche, D. and Duecher, R., 1982. The effect on ecological concern on product attribute quality. *American Marketing Association Proceedings*. Chicago: American Marketing Association.
- Fryxall, G. and Lo, C., 2003. The influence on environmental knowledge and values on managerial behaviours on behalf of the environment: An empirical examination of managers in China. *Journal of Business Ethics*, Iss. 46, pp. 45-59.
- Gil, J.M., Garcia, A. and Sanchez, M., 2000. Market segmentation and willingness to pay for organic products in Spain. *International Food and Agribusiness Management Review*, 3(2), pp. 207-226.
- Grunert, S., 1993. Everybody seems concerned about the environment but is this concern reflected in Danish consumers' food choice?. *European Advances in Consumer Research*, Iss. 1, pp. 428-433.
- Harper, G.C. and Makatouni, A., 2002. Consumer perceptions of organic food productions and farm animal welfare. *British Food Journal*, 104(3-5), pp. 287-299.
- Harris, B., Burrell, D. and Eicher, S., 2000. *Demand for local and organic product: a brief review of literature*. Kansas: University of Kansas Institute for Public Policy and Business Research.
- Hines, J., Hungerford, H. and Tomera, A., 1987. Analysis and Syntheses of research on environmental behaviour: A meta-analysis. *Journal of Environmental Education*, 18(2), pp. 1-8.
- Hueber, G., 1991. Americans report high levels of environmental concern. *Gallup Poll Monthly*, 307, pp. 6-12.
- Hume, S., 1991. Consumer doubletalk makes companies wary. *Advertising Age*, 62 (46), p. GR 4.
- Hustad, T.P. and Pessemier, E.A., 1973. Will the real consumer activists please stand up: An examination of consumers' opinions about marketing practices? *Journal of Marketing Research*, 10, pp. 319-324.
- Ismail, H.B., Panni, M.F.A.K. and Talukder, D., 2006. Consumer perceptions on the environmental consumerism issue and its influence on their purchasing behavior. *Proceedings of the Academy of Legal, Ethical and Regulatory Issues of 2006 Fall Conference, Allied Academies*, 10(2), pp.13-18.
- Ismail, H.B. and Panni, M.F.A.K., 2008. Consumer perceptions on the consumerism issues and its influence on their purchasing behavior: A view from Malaysian food industry. *Journal of Legal, Ethical and Regulatory Issues*, 11(1), pp. 43-64.

- Kalafatis, S.P., Pollard, M., East, R. and Tsogas, M.H., 1999. Green marketing and Ajzen's theory of planned behavior: a cross-market examination. *Journal of Consumer Marketing*, 16(5), pp. 441-460.
- Kaplan, S., 2000. Human nature and environmentally responsible behavior. *Journal of Social Issues*, 56(3), pp. 491-508.
- Karp, D.G., 1996. Values and their effect on pro-environmental behavior. *Environment and Behavior*, 28 (1), pp. 111-113.
- Kassarjian, H., 1971. Incorporating ecology into marketing strategy: The case of air pollution, *Journal of Marketing*, 35(3), pp. 61-65.
- Kaynak, E., 1985. Some thoughts on consumerism in developed and less developed countries. *International Marketing Review*, 2, pp. 15-31.
- Kellegren, C.A. and Wendy, W., 1986. Access to attitude relevant information in memory as a determinant of attitude-behavior consistency. *Journal of Experimental Social Psychology*, 22, pp. 328-338.
- Kempton, W., Boster, J.S. and Hartley, J.A., 1995. *Environmental Values in American Culture*. Cambridge, MA: MIT Press.
- Kerr, K., 1990. Thinking green is no longer a hippie dream. *Ad week*, 31, pp. 18-19.
- Kim, Y. and Choi, S.R., 2005. Antecedents of green purchase behaviour: An examination of collectivism, environmental concern and PCE. *Advances in Consumer Research*, 32(1), pp. 592-599.
- Kinnear, T. and Taylor, J., 1973. The effect of ecological concern on brand perception. *Journal of Marketing Research*, 10(2), pp. 191-197.
- Kinnear, T.C., Taylor, J.R. and Ahmed, S. A., 1974. Ecologically concerned consumers: who are they? *Journal of Marketing*, 38 (2), pp. 20-24.
- Knauer, V., 1973. Advertising and consumerism. *Journal of Advertising*, 2(1), pp. 6-8.
- Kohl, M. F., 1991. *Good earth art*. Bellingham: Bright Ring Publishing.
- Kollmuss, A. and Agyeman, J., 2002. Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?. *Environmental Education Research*, 8(3), pp. 239-260.
- Koslow, S., 2000. Can the truth hurt? How honest and persuasive advertising can unintentionally lead to increased consumer skepticism. *Journal of consumer Affairs*, 34(2), pp. 16-32.
- Kotchen, M.J. and Reiling, S.D., 2000. Environmental attitudes, motivations and contingent valuation of nonuse values: A case study involving endangered species. *Ecological Economics*, 32(1), pp. 93-107.
- Laroche, M., Begeron, J. and Barbaro-Forleo, G., 2001. Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18(6), pp. 503-520.

- Lee, J.A. and Holden, S.J.S., 1999. Understanding the determinants of environmentally conscious behavior. *Psychology & Marketing*, 16 (5), pp. 373-392.
- Li, L.Y., 1997. Effects of collectivist orientation and ecological attitude on actual environmental commitment: The moderating role of consumer demographics and product involvement. *Journal of International Consumer Marketing*, 9(4), pp. 31-35.
- Li, H. and Cai, W., 2008. Green marketing and sustainable development of garment industry- A game between cost and profit. *International Journal of Business and Management*, 3(12), pp. 81-85.
- Lisa, A., 2004. Is it unfair pricing?. *Tire Business*, 22(14), p. 15.
- Lynne, G. and Rola, L., 1988. Improving attitude-behavior prediction models with economic variables: Farmer action towards soil conservation. *Journal of Social Psychology*, 128(1), pp. 19-28.
- Mainieri, T., Barnett, E.G., Unipan, J.B. and Oskamp, S., 1977. Green buying: The influence of environmental concern on consumer behavior. *The Journal of Social Psychology*, 137(2), pp. 189-204.
- Mann, J. and Thornton P., 1978. Consumerism in perspective. *European Journal of Marketing*, 12(4), pp. 253-263.
- Maronick, T.J., 1991. Copy tests in FTC deception cases: Guidelines for researchers. *Journal of Advertising Research*, 31(6), pp. 9-17.
- Mason, R.E., Rath, P.M., Husted, S.W. and Lynch, R.L., 1995. *Marketing practices and principles*. 5th ed. Glencoe: McGraw-Hill.
- McKenzie-Mohr, D., 2000. Fostering sustainable behavior through community based social marketing, *American Psychologists*, 55(5), pp. 531-537.
- McCarty, J. A. and Shrum, L.J., 1993. A structural equation analysis of the relationships of personal values, attitudes and beliefs about recycling, and the recycling of solid waste products. *Advances in Consumer Research*, 20(1), pp. 641-646.
- McCarty, J. A. and Shrum, L.J., 1994. The recycling of solid wastes: Personal and cultural values and attitudes about recycling as antecedents of recycling behavior. *Journal of Business Research*, 30 (1), pp. 53-62.
- McCarty, J. A. and Shrum, L.J., 2001. The influence of individualism, collectivism, and locus of control on environmental beliefs and behavior. *Journal of Public Policy and Marketing*, 20 (1), pp. 93-104.
- Memery, J., Megicks, P. and Williams, J., 2005. Ethical and social responsibility issues in grocery shopping: a preliminary typology. *Qualitative Market Research: An International Journal*, 8(4), pp. 399-412.
- Milfont, L. and Duckitt, J., 2004. The structure of environmental attitudes: A first-and second-order confirmatory factor analysis. *Journal of Environmental Psychology*, 24(3), pp. 289-303.

- Minton, A.P. and Rose, R.L., 1997. The effect of environmental concern on environmentally friendly consumer behavior: An exploratory study. *Journal of Business Research*, 40(1), pp. 37-48.
- Mirvis, P.H., 1994. Environmentalism in progressive business. *Journal of Organizational Change Management*, 7(4), pp. 82-100.
- Mostafa, M., 2009. Shades of green: A psychographic segmentation of the green consumer in Kuwait using self-organizing maps. *Expert Systems with Applications*, 36(8), pp. 11030-11038.
- Newhouse, N., 1991. Implications of attitudes and behavior research for environmental conservation. *The Journal of Environmental Education*, 22(1), pp. 26-32.
- Ottman, J., 1992. Industry's response to green consumerism. *Journal of Business Strategy*, 13(4), pp. 3-7.
- Panni, M.F.A.K., 2006. *The Effect of Consumerism towards customer attitudinal behavior in food industry in Malaysia*. M.Phil. Multimedia University.
- Papadopoulos, I., Karagouni, G., Trigkas, M. and Platogianni, E., 2009. Green marketing. The case of timber certification, coming from sustainable forests management, promotion. In: Euromed Research Business Institute, 2nd Annual Euromed Conference. Salerno, Italy, 26-28 October 2009. Salerno: Euromed Research Business Institute.
- Pickett-Baker, J. and Ozaki, R., 2008. Pro-environmental products: marketing influence on consumer purchase decision. *Journal of Consumer Marketing*, 25(5), pp. 281-293.
- Prothero, A. and McDonald, P., 1992. Producing environmentally acceptable cosmetics- The impact of environmentalism on the United Kingdom cosmetics and toiletries industry. *Journal of Marketing Management*, 8(2), pp. 147-166.
- Quazi, A.M., 1998. The role of consumer activist in protecting consumer interest: Ralph Nader. *Journal of Economic and Social Policy*, 3, pp. 85-95.
- Reitman, V., 1992. Green products sales seem to be wilting. *The Wall Street Journal*, 220, May 10, p. B1 18.
- Roberts, J.A., 1996. Green consumers in the 1990s: profile and implications for advertising. *Journal of Business Research*, 36(3), pp. 217-231.
- Rokicka, E., 2002. Attitudes towards natural environment. *International Journal of Sociology*, 32(2), pp. 78-90.
- Ruiz, S., Arcas, N. and Cuestas, P., 2001. Consumer attitudes towards ecological agrarian fruits and vegetables in Spain. A segmentation approach. *Acta Horticulturae*, 559, pp. 681-686.
- Samsad, 2004. *Samsad English-Bangali Dictionary*. Calcutta: Debajyoti, Datta, Shishu Sahitya, Samsad Pvt. Ltd.
- Sarigollu, E., 2009. A Cross-Country Exploration of Environmental Attitudes. *Environment and Behavior*, 41(3), pp. 365-386.

- Schlossberg, H., 1992. Kids teach parents how to change their buying habits. *Marketing News*, 26, pp. 8.
- Schwartz, S., 1977. Normative influences on altruism. In: L. Berkowitz, ed, 1977. *Advances in experimental social psychology*. New York: Academic Press, pp. 221-279.
- Schwepker, C.H. and Cornwell, R.B., 1991. An examination of ecologically concerned consumers and their intention to purchase ecologically packaged products. *Journal of Public Policy and Marketing*, 10(2), pp. 77-101.
- Seguin, C., Pelletier, L. and Hunsley, J., 1998. Toward a model of environmental activism. *Environment and Behavior*, 30(5), pp. 628-652.
- Sherlekar, S.A., 1999. *Marketing Management*. 6th ed. Delhi: Himalaya Publishing House.
- Shrum, L.J., McCarty, J.A. and Lowrey, T.M., 1995. Buyer characteristics of the green consumer and their implication for advertising strategy. *Journal of Advertising*, 24(2), pp. 71-90.
- Simmons, D. and Widmar, R., 1990. Motivations and barriers to recycling: Toward a strategy for public education. *Journal of Environmental Education*, 22(1), pp. 13-18.
- Smed, S. and Jensen, J.D., 2003. Demand for low-fat dairy products-demand for healthiness or taste? In: EAAE, *the 83rd EAAE Seminar*. Chania, Greece, 4-6 September 2003. s.l: s.n.
- Smith, S., Haugtvedt, C. and Petty, R., 1994. Attitudes and recycling: Does the measurement of affect enhance behavioral prediction? *Psychology and Marketing*, 11(4), 359-374.
- Stern, P., Dietz, T. and Kalof, L., 1993. Value orientations, gender, and environmental concern. *Environment and Behavior*, 25(3), pp. 322-348.
- Uusitalo, O. and Oksanen, R., 2004. Ethical consumerism-a view from Finland. *International Journal of Consumer Studies*, 28(3), pp. 214-221.
- Vermeir, I. and Verbeke, W., 2004. *Sustainable food consumption: exploring the consumer attitude-behavior gap working paper*, October (04/268), p.24.
- Webster, F.E., 1975. Determining the characteristics of the socially conscious consumer. *Journal of Consumer Research*, 2(3), pp. 188-196.