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Role of Collectivism, Environmental Concern, Scepticism and Perceived Consumer Effectiveness on Green Purchasing Behaviour of Consumers of Guwahati, India

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Abstract:

The paper examines the specific roles of collectivism, Environmental Concern, scepticism and perceived consumer effectiveness on green purchasing behaviour of consumers of Guwahati area and helps gain deeper understanding of the antecedents of green purchasing behaviour for this region. The study was carried out from 15 April 2014 to 17 May 2014 over a period of one month among the inhabitants of Guwahati city using structured questionnaire for data collection. Significant relationships were found regarding perceived consumer effectiveness, environmental concern on green purchase behaviour of the consumers of Guwahati area. While, no significant relationships were established for collectivism and green purchase behaviour and; scepticism and green purchase behaviour. The study confirmed that environmentally friendly respondents showed that in solving environmental problems, they consider the contribution of the individual more important and valuable than collectivistic individuals. Implications regarding the findings were discussed.

Keywords: *Collectivism, Environmental Concern, scepticism, perceived consumer effectiveness, green purchasing behaviour*

1. Introduction

The rapid economic growth in the past years has witnessed increasing consumption worldwide, causing environment deterioration through over-consumption and utilization of natural resources (Chen, 2010). Marketing managers strive to understand the emerging “green” market and to identify the determinants of their purchasing behaviour, in the last 30 years (Albayrak, Caber, Moutinho and Herstein, 2011). Green products are introduced in the market as increasing numbers of consumers are realizing that their purchasing behaviour directly affects many ecological problems (Laroche et al., 2001). Several researches have been conducted and various conceptual frameworks have been proposed by researchers (Kaufmann, H. R., Panni, M. F. A. K., & Orphanidou, Y. 2012). For example, Kim and Choi (2005) identified three factors that usually affect consumers’ pro-environmental behaviour. These three factors are collectivism, environmental concern and perceived consumer effectiveness (PCE). Mostafa (2009) holds altruism, environmental concern, environmental knowledge, scepticism towards environmental claims; environmental attitudes to be the main factors that may affect consumers’ green purchasing behaviour (Mostafa 2009; HR Kaufmann, Mohammad Fateh Ali Khan Panni and Yianna Orphanidou, 2012). Scepticism (In the marketing literature, scepticism is generally examined by advertisement-related studies. Scepticism for the advertisements may be identified as the tendency of disbelief the consumers hold towards the claims (Obermiller and Spangenberg, 1998)) Dunlap and Jones (2002, p: 485) defined environmental concern as the degree to which people are aware of environmental problems and assist struggles to solve them or signify the readiness to contribute personally to their solution. Kinnear et al. (1974) described perceived consumer effectiveness (PCE) as a measure of individual belief that he or she is an effective contributor to pollution abatement. Collectivism implies cooperation, helpfulness, and consideration of the goals of the group relative to the individual. But the findings often contradict each other (Elham, R and Nabsiah, A.Wahid, 2011). For example while consumers admit they would buy sustainable products, this behaviour is currently not occurring at the point of purchase (Ferguson, 2014). For that reason, the findings may only be relevant in certain cultural, demographical and geographical context, and time (Afzaal Ali & Israr Ahmad, 2012). Demand and attitudes for environment friendly products is likely to be uneven across different market segments and cultures (Afzaal Ali & Israr Ahmad, 2012; Elham and Nabsiah, 2011; Diamantopoulos et al., 2003; Ottman, 1992; Peattie, 1992). As a result, research of the effects of various factors on consumers’ purchasing behaviour in various regions and emerging markets in India can be considered.

Furthermore, vast majority of the earlier studies in the area of environmental research on consumption behaviour were based on developed countries, mainly focused on the US consumers (Saadia Shabnam, 2013). Therefore, the earlier results may not hold in developing country settings where the economy is characterized by weak institutional environments, poor enforcement of law, bureaucratic complexity and red tape, social insecurity and corruption; the concept of environmental consciousness and its practices may come to the forefront with a very different meaning (Jamali and Mirshak 2007).

Thus, understanding the motives, attitudes, behaviour, and actions of consumers with regard to ecological issues is of paramount importance in alleviating part of the problems associated with the environment (Roberts & Bacon, 1997). On the other hand, a deeper understanding of the characteristics of green consumers by organisations can lead to the design of more efficient and effective sustainability marketing programs. Therefore the purpose of this study is to understand the effects of environmental knowledge, collectivism, Environmental Concern, and perceived consumer effectiveness on purchasing behaviour of consumers of Guwahati area.

2. Literature Review

2.1. Environmental Concern (Ec)

Fundamental to environmental research is an individual's concern for the environment (Hines et al., 1987) but discrepancy between environmental concern and behaviour of consumers has been mentioned in many studies (Roberts, 1996). For instance, consumers with a stronger concern for the environment are more likely to purchase products as a result of their environmental claims (Mainieri et al. 1997) than those who are less concerned about the environmental issues. Dunlap and Jones (2002, p: 485) defined environmental concern as the degree to which people are aware of environmental problems and assist struggles to solve them or signify the readiness to contribute personally to their solution. Kim and Choi (2005) found that environmental concern directly influences green buying behaviour. Cornelissen et al. (2008) and Beckford et al. (2010) also found in their studies that environmental attitude has a significant impact on consumer environmental/green purchasing behaviour. Mostafa (2009) found that both environmental concern and attitude have significant positive effect on the consumers' intention to buy green products. But an "attitude-behavioural gap" between environmental concern of consumers and their performed buying behaviour was reported (Akehurst et al., 2012). It is almost commonplace that people are definitely concerned about environmental problems. As a result, it is not the weakness of environmental concern, but some other factors that hamper them in undertaking environment friendly behaviour.

2.2. Perceived Consumer Effectiveness (PCE)

Kinnear et al. (1974) described perceived consumer effectiveness (PCE) as a measure of individual belief that he or she is an effective contributor to pollution abatement. According to Ellen et al.'s (1991), perceived consumer effectiveness reflects the belief of people which their actions like purchasing environmental friendly products and subscribing to e-invoice campaigns will make a difference in helping to solve environmental problems, such as a reduce in pollution. It was found to have a direct and positive relationship with environmental attitudes (Kim and Choi 2003; 2005). It means that people who have exhibited higher PCE are likely to be more environmentally concerned than those who have lower PCE (Kim and Choi, 2005; Lee and Holden, 1999). As perceived consumer effectiveness differs from individual to individual, because of the dissimilarity in their knowledge and life experience, some will believe that their activities have evolutionary results whereas others may have little trust in their abilities to make any difference. Moreover, depending on behaviours and situations, perceived consumer effectiveness is a changing phenomenon. In other words, dissimilar reflections can be observed in various positions (Kim & Choi, 2005).

2.3. Scepticism (SKEP)

In this competitive market environment more and more companies are trying to show that their offerings, products are of the highest quality due to presence of fierce completion. Unfortunately, some commercial advertising regulations allow some companies to exaggerate their product's characteristics. Exaggerated claims attract society's or concerned people's attention by theoretically correct but practically incorrect claims (Ellen et al., 1991). Roberts (1996), states that Tricking and advertisements of marketers causes untrustworthy behaviour of consumers while misinterpreted information about green products cause embarrassment to consumers. As Obermiller and Spangenberg (1998) emphasize, by this means, the free market system increases people's scepticism level. Scepticism is a cognitive reaction which varies according to the occasion and content of the communication (Mohr et al., 1998). Scepticism does not mean a general mood, but usually occurs in some circumstances. A sceptic person doubts about other people's expressions or attitudes, however he or she can be persuaded if some evidences are presented. Consumers usually consider the environmental claims as exaggerated or profiteer, which mislead themselves when they try to make a correct decision. It has been found, that a high level of Scepticism can reduce the effects of the environmental awareness of people on their green purchase behaviours. However, a negative inclination of Scepticism can have a negative consequence on green purchasing power of consumers (Albayrak, 2011).

2.4. Collectivism

According to Triandis (1993), two major values that influence consumer behaviour are individualism and collectivism. Likewise, person-level tendencies of individualism or collectivism appeared to influence their motivation to engage in environmentally conscious behaviours. Collectivism implies cooperation, helpfulness, and consideration of the goals of the group relative to the individual. Being a collectivist means that one may forego individual motivations for that which is good for the group. Collectivist people tend to be friendlier to the environment, while individualistic people tend to be more unfriendly (Triandis, 1993; McCarty and Shrum, 1994). Thus collectivism has an influence on the consumers' green buying behaviour (Kim and Choi, 2005).

2.5. Green Purchase Behaviour

Green purchase behaviour refers to the purchasing and consuming products that have minimal impacts on environment (Mainieri, Barnett, Valdero, Unipan and Oskamp, 1997). It is one of the pro-environmental behaviours (Chan, 2001; Kim, 2002; Kim and Choi, 2003; 2005; Mostafa, 2007). There are different terms used interchangeably with green purchase behaviour, such as green buying behavior (Kim, 2002; Kim and Choi, 2003; 2005), pro-environmental purchase behaviour (Soutar et al., 1994; Tilikidou, 2007) and environmentally responsible purchase behaviour (Follows and Jobber, 2000). It is notable that pro-environmental behaviours differ from general purchase-related consumer behaviours. General purchase behaviour is driven by an assessment of its benefits and costs that are of immediate relevance solely to the individual consumer performing the behaviour. By contrast, environmentally conscious behaviour 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). 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, scepticism towards environmental claims, environmental attitudes to be the main factors that may affect consumers' green purchasing behaviour.

3. Objectives

The objective of the proposed study is to examine the role/ influence of collectivism, Environmental Concern, scepticism and perceived consumer effectiveness towards the green purchasing behaviour of consumers of Guwahati area. The linkages between and among variables at a regional scale have been only recently been subjects of research; hence much work remains to improve our understanding and presents an opportunity.

The guiding research question is: what is the role/influence of collectivism, Environmental Concern, scepticism and perceived consumer effectiveness that affects the consumers of this region to display a specific consumer behaviour regarding green products?

This involves the following specific objectives:

- To determine the influence of collectivism, Environmental Concern, scepticism and perceived consumer effectiveness on green purchase behaviour.
- To gain deeper understanding of the antecedents* of green purchasing behaviour.

* An 'antecedent' refers to a factor that precedes a specific attitude or behaviour, while an 'outcome' is the result of this attitude or behaviour (Leonidou et al, 2010).

4. Research Methodology

The design of the research can be classified as exploratory; a survey method using structured questionnaire is be used for data collection. Sample size is 85 and sampling frame/population is the residents of the Guwahati city above 18 years of age. The study was carried out from 15 April 2014 to 17 May 2014 over a period of one month.

4.1. Data Collection

The questionnaires were administered using convenience sampling to 85 respondents in and around Guwahati city. Participation was voluntary and no remuneration was offered. The questionnaires for the quantitative pre-test and the final study were administered online using the Google docs' software platform as Google forms using Gmail and social networking sites like facebook, linkedin. The prevalence of surveys administered online has increased in recent years due to improvements in technology (Evans & Mathur, 2005). Online surveys have been found to produce equivalent results compared with mail surveys (Deutskens, de Ruyter, & Wetzels, 2006). In addition, online surveys benefit researchers through lower costs and faster response times as compared to mail surveys (Ilieva, Baron, & Healey, 2002). Therefore, an online approach was utilized for the benefits suggested above and for the ability to accurately target the selected sample for this study.

4.2. Instruments

In order to obtain reliable information from the respondents, established and validated scales were selected for data collection. In this study, the survey instrument of environmental knowledge was adopted from LaRoche et al., (2001) environmental concern (8 items) was adopted from Roberts (1996); collectivism (four items) from Kim and Choi (2005), scepticism (three items) from Pandey, J., & Sunaina, R. (2012) and perceived consumer effectiveness (5 items) from Ellen et al. (1991); Kim (2002); Kim and Choi (2003; 2005), green purchasing behaviour (12 items) from Ferguson(2013). The respondents were asked to rate each item on a 5-point Likert scale from "strongly disagree" (1) to "strongly agree" (5).

Cronbach's alpha estimates were .627 for environmental sustainability, .746 for collectivism (COL), .736 Environmental Concerns (EC), .739 for scepticism (SCPT) and .786 for perceived consumer effectiveness (PCE) and .912 for green purchasing behaviour (GPB). These results provided strong evidence for the internal consistency of the scales. After the analyses, five items of environmental sustainability, five items of perceived consumer effectiveness, two items of scepticism, four items of collectivism, five items for environmental concern and seven items for green purchasing behaviour have remained.

4.3. Demographics

		Frequency	Percentage
gender	male	35	42%
	Female	48	58%
age	Mean	25-26	
marital status	Married	10	12%
	Single	71	86%
education qualification	Less than high school	0	0%
	High school graduate	1	1%
	10+2 / HS	4	5%
	College graduate (Bachelor's degree)	20	24%
	College graduate plus (Master's degree or more)	57	70%

Table 1

5. Data Analysis and Findings

5.1. Results of Reliability Test

To determine the questionnaires' reliability, the 'Cronbach's Alfa technique' was utilized.

Variables	Cronbach's Alfa
Perceived consumer effectiveness	.786
Scepticism	.739
Collectivism	.746
Environmental concern	.736
Purchase behaviour	.808

Table 2

These values support the internal reliability of questionnaire, because the calculated results for cronbach's alpha are more than 0.7 hence the statistic of the respective emergent factors was found to be reliable.

5.2. Measure of the Endogenous Variable

Seven questions were used to measure respondents' Likelihood to Purchase or Green purchasing behaviour. Each question was measured on a five-point Likert scale (strongly disagree to strongly agree). These questions were spread out in the questionnaire among the 12 items measuring Green consumer behaviour.

Questions*	Mean	cronbach's alpha
38. I make a special effort to buy products that are made from recycled materials whenever possible.	3.73	0.808
39. I have changed products for environmental reasons.	3.17	
40. I have avoided buying a product because it had potentially harmful environmental effects.	3.48	
43. When I have a choice between two equal products, I purchase the one less harmful to other people and the environment.	4.13	
46. I am likely to purchase a compact fluorescent light bulb versus an incandescent light bulb because it saves me money through reduced energy bills.	4.44	
47. I typically consider the savings I will incur over the life span of an energy efficient product.	4.14	
49. I am willing to pay a premium for products that can be recycled.	3.83	
Note: Items were measured on a five-point Likert scale (strongly disagree to strongly agree)		

Table 3: Questions used to measure consumer's green buying behaviour.

Based on these questions, we divided our sample in two groups:

- **Environmentally friendly purchasing behaviour;**
- **Environmentally unfriendly purchasing behaviour**

To be admissible in the first group, respondents had to answer to all seven questions with a score of "five and above." Respondents were included in the second group if they answered to all three questions with a score of "four to one". Among the respondents in the sample, 46 are considered as showing environmentally friendly purchasing behaviour and 33 are considered as showing environmentally unfriendly purchasing behaviour.

5.3. T test for Perceived Consumer Effectiveness and Consumer Buying Behaviour

	Is the consumer friendly or not??				t-test for Equality of Means		
	friendly		non friendly		t	df	Sig. (2-tailed)
	N	Mean	N	Mean			
14. When I buy products, I try to consider how my use of them will affect the environment.	46	4.02	33	3.12	4.974	77	.000
15. Each consumer's behaviour can have positive effect on society by purchasing products sold by socially responsible companies.	46	4.43	33	4.00	2.668	77	.009
16. I feel capable of helping solve the environmental problems	45	4.16	32	3.28	4.613	75	.000
17. I can protect the environment by buying products that are friendly to the environment.	46	4.52	32	3.94	3.441	76	.001
18. I feel I can help solve natural resource problems by conserving water and energy.	46	4.67	33	4.06	4.308	77	.000

Table 4

On the basis of the table, it can be ascertained that in the case of all of the five statements the environmentally friendly respondents show significantly high average values, which indicates that in solving environmental problems, they consider the contribution of the individual more important and valuable.

5.4. T test for Scepticism and Consumer Buying Behaviour

	Is the consumer friendly or not??				t-test for Equality of Means		
	friendly		non friendly		t	df	Sig. (2-tailed)
	N	Mean	N	Mean			
19. Most environmental claims made on package labels and products are true.	46	2.70	33	2.82	-.538	77	.592
21. All environmental claims made in advertisements are true.	46	2.46	33	2.45	.008	77	.994

Table 5

On the basis of the table (Table: 5), it can be ascertained that in the case of all of the two statements we can see that $p > 0.05$ with no significant difference of mean between scepticism and environmentally friendly and non friendly hence state that in all probability that difference of Scepticism of environmentally friendly and non friendly is statistically insignificant.

5.5. T test for Collectivism and Consumer Buying Behaviour

	Is the consumer friendly or not??				t-test for Equality of Means		
	friendly		non friendly		t	df	Sig. (2-tailed)
	N	Mean	N	Mean			
22. I respect the majority's wish.	46	3.33	33	3.03	1.099	77	.275
23. I support my group, where they are right or wrong.	45	2.49	33	2.79	-1.081	76	.283
24. I respect decisions made by my group.	45	3.67	33	3.30	1.619	76	.110
25. I maintain harmony in my group.	46	3.98	33	3.64	1.780	77	.079

Table 6

On the basis of the table (Table: 6), it can be ascertained that in the case of all of the four statements we can see that $p > 0.05$ with no significant difference of mean between collectivism and environmentally friendly and non friendly hence state that in all probability that difference of collectivism of environmentally friendly and non friendly is statistically insignificant. Collectivistic individuals who value group goals and cooperation might not have significant effect on the purchasing behaviour of green products in mitigating environmental problems

5.6. T-test Environmental Concern and Consumer Buying Behaviour

	is the consumer friendly or not??				t-test for Equality of Means		
	friendly		non friendly		t	df	Sig. (2-tailed)
	N	Mean	N	Mean			
27. We are approaching the limit in the number of people the earth can support.	46	4.15	33	3.36	3.400	77	.001
31. The balance of nature is very delicate.	46	4.61	33	4.09	3.085	77	.003
32. When humans interfere with nature, it often produces disastrous consequences.	46	4.57	33	4.15	2.308	77	.024
34. Mankind is abusing the environment.	46	4.50	31	4.10	2.164	75	.034
37. I carry cotton bags when I go to purchase vegetables.	45	3.91	33	2.79	4.291	76	.000

Table 7

On the basis of the table (Table;7), it can be ascertained that in the case of all of the five statements the environmentally friendly respondents show significantly high average values, which indicates that environmental concern of consumers with environmentally friendly purchasing behaviour is higher than consumers with environmentally unfriendly purchasing behaviour since in all probability that difference of environmental concern of environmentally friendly and non friendly is statistically significant ($p < 0.05$).

6. Findings and Discussion

This study examined the specific roles of collectivism (COL), Environmental Concern (EC), scepticism (SCPT) and perceived consumer effectiveness (PCE) on green purchasing behaviour (GPB) of consumers of Guwahati area. The findings of this study shed light on the roles of collectivism, Environmental Concern, scepticism and perceived consumer effectiveness on green purchasing behaviour of consumers.

By having a positive relationship with green purchasing behaviour, Perceived consumer effectiveness (PCE) appeared to be environmentally important value as the consumers with environmentally friendly buying behaviour show significantly high average values, which indicates that in solving environmental problems, they consider the contribution of the individual more important and valuable.

The study also indicates that environmental concern of consumers with environmentally friendly purchasing behaviour is higher than consumers with environmentally unfriendly purchasing behaviour. Hence environmental concern (EC) has a direct and positive influence on green purchasing behaviour (GPB)

On the other hand, significant relationship was not found between collectivism (COL) and green purchasing behaviour (GPB) and; scepticism (SCPT) and green purchasing behaviour (GPB).

Hence from the study it was found that both perceived consumer effectiveness and environmental concerns are predictors of green purchasing behaviour in the consumers of the Guwahati area whereas collectivism and scepticism were found to be poor

predictors of green purchase behaviour which implies that consumers of this region consider the contribution of the individual more important and valuable in solving environmental issues than a collectivistic approach. Furthermore the consumers of Guwahati are more open to new ideas and behaviours, whereas collectivistic people tend to retain traditional ideas and be reluctant to change their behaviours and habits (Triandis 1972) as collectivism didn't have any significant role in influencing green purchase behaviour of the consumers of this region. Greater perceived consumer effectiveness directly influences the likelihood that consumers will engage in green purchasing behaviour. Thus instead of instant gratification for buyers, using green products often provides benefits for the entire society of this region. The significant difference in perceived consumer effectiveness indicates that marketing communication should emphasise the amount of harm, what the consumption of one individual can cause and/or the savings or advantages of pro-environmental activities of one person for this region. Environmental concern also has a direct and positive influence on green purchasing behaviour, suggesting that consumers who possess strong environmental concern may be interested in consumption of products that reflect that concern. However, environmental attitudes or concerns that reflect an individuals' orientation or belief toward the environment specifically appear to be not related to their collectivistic tendencies at a more general level for Guwahati. Furthermore scepticism directly might not have any influence on green purchasing behaviour but influence of scepticism on perceived consumer effectiveness and environmental concern can be explored which in turn might affect green purchasing behaviour and alternative predictions for the effects of collectivism and scepticism on Green purchase behaviour warrant future research for consumers of this region.

7. Conclusion

This paper examines the influence of Collectivism, Environmental Concern, scepticism and perceived consumer effectiveness on green purchase behaviour (GPB). The results from this study would be of interest to companies promoting green products in Northeast India particularly in Guwahati. By being sensitive to the specific attitude of green purchase among consumers, companies would be able to better predict the behavioural patterns of these consumers. Furthermore consumers in this market have not been fully exposed to variety of green or environmentally friendly products as compared to consumers in the western countries. Therefore there is a lot of potential to discover the attitude and behavioural patterns of these consumers. There is a need to replicate the study to other parts of the country especially to the northeast region. Corporations also need to be aware that consumers would only act if they believe that purchasing green products make a difference in saving the environment. So, convincing the green consumers and changing the mindset of pre-believers would be crucial. These would be some of the challenges that companies in green market need to consider in promoting their products.

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