



STRATEGY OF PRO-ENVIRONMENTAL MARKETING: IMPACT ON CONSUMER PURCHASE DECISION

Poonam Sharma

Research Scholar, University Business School, Panjab University

ABSTRACT

PURPOSE: The purpose of the study is to understand the general environmental belief and behaviour of consumers of Chandigarh. To what extent belief and behaviour affects consumer product selection. Study also aims at understanding the perception about quality of pro-environmental/green products and knowing the role of word-of-mouth in quality perception.

DESIGN/METHODOLOGY/APPROACH: Random sampling method is adopted for getting the questionnaire filled.

FINDINGS: The study found the significant gap in general environmental belief and behaviour of the consumers. Environmental behaviour found to be affecting consumer buying behaviour more than the environmental belief. Own experience of consumer found to be the relatively more important factor for the formulation of quality perception about green/pro-environmental products, than word-of-mouth.

RESEARCH LIMITATIONS/IMPLICATIONS: The focus of study is on consumer's perception only. Retailers and marketing executives and managers of companies could be contacted to have more understanding of different pro-environmental strategies being followed by different brands.

MANAGERIAL IMPLICATIONS: Companies should focus more on green production and should make the marketing communication of greenness of its products proper. As, although consumer's found to have preference for green products than non-green products, but there is gap in the way green products are marketed to them and the way consumer expects. Few consumers also reported difficulty in identifying green products which offers scope for more intensive development in marketing communication strategy.

CONTRIBUTION: The contribution of the paper is empirical testing of the variables and analyzing the relationship thereof.

KEY WORDS: Environment behaviour, Environment belief, Pro-environmental strategies, marketing communication.



INTRODUCTION

The green movement has been rapidly expanding in the 21st century; also consumers are taking responsibility and doing the right things. In the past, successful marketing has aimed at recognizing the existing market trends and then positioning products, services and brand in a way that complements and supports buyer intentions. Some studies on the consumption of pro-environment products or green products have shown that perceived performance of product is a main obstacle in preference of green products. (Ottman 1998) found that 41 per cent of consumers feel reluctant to buy green products due to perceived low quality of these products. (Alston and Prince Roberts 1999) found, in their research related to environmental strategy and new product development, that there was a willingness among respondents to pay more for environmental improvement in cleaning products than to sacrifice the aspect of product performance of green or pro-environmental products. One of the emerging categories of product is GPIs (green product innovations), where the performance of green product was found to be significantly better than traditional or conventional products (Peattie, 1992). Further (Porter and van der Linde, 1995) through his study asserted that GPI products have been good solution for harmonizing environment and economy. Companies have increasingly adopting and introducing GPIs into their product development processes over recent decades. However, in his research on green product innovation strategy, (Driessen 2005) found that it is important to maintain in a competitive advantage, an optimum level of greenness is required between greenness and innovative performance, therefore avoiding the objective of merely capturing the niche green/pro-environmental product market. Therefore it is impertinent to consider various factors influencing the consumer's green product selection. This paper aims at examining how consumers' belief and attitudes, along with their exposure to information, affects their behaviour and perceptions about the of product performance, with a particular focus on the role of marketing communication and also knowing how marketing influences, consumer attitudes towards green products leading to purchasing decisions. The objective of the study is; (1) To study consumer belief and behaviour on pro-environmental products. (2) To know awareness of consumers about the availability of environmentally friendly products. (3) The influence of marketing efforts put in by marketers with reference to Consumers.

The review of the literature on "green" behaviour has been done under four themes:

- 1. Consumer belief and behaviour;**
- 2. Consumer's response to marketing of being pro environmental;**
- 3. Trust in the product; and**
- 4. Consumer's exposure to product marketing communication.**

LITERATURE REVIEW

CONSUMER BELIEF AND BEHAVIOUR

Hoyer and Mac Innis (2004) stated in his study that consumers' value and belief need to be given importance, while examining and analyzing the influences on consumer's purchase decisions. (Reser and Bentupperbaumer, 2005; Stern, 2000) further asserted that, environmental values play an important role in pro-environmental behaviour. Values of a person affect his or her belief, which in return influences personal norms of customers that further lead to preference for green product of pro-environmental behaviour. However, an individual who is conscious and concerned about the environment does not necessarily, behave in a green way when it comes to purchase of products. This causes value and action gap. (Kollmuss and Agyeman, 2002) explored different internal and external factors that encourage or lead to pro-environmental behaviour and found some competing and conflicting factors, directly related to consumers' daily purchase decisions. (Ohtomo and Hirose, 2007) found that people, who are environmentally conscious and aware, do not necessarily behave in a pro environmental way.

H₁ Consumer environmental belief has significant impact on general environmental behaviour of consumers

ENVIRONMENT BELIEF, BEHAVIOUR AND BUYING BEHAVIOUR

People's attitudes affect their feelings and thoughts, and thus influence the behaviours such as purchasing behaviour (Hoyer and MacInnis, 2004). This implies that marketers should make efforts to change consumers' attitudes so that they can influence consumers' behaviour and decision making process. Brands are generally considered to be effective because they put effect on the affective and important aspect i.e. rational reasons are translated into emotional preferences (Travis, 2000). Thus, brands can change consumer attitudes to increased sustainable consumption. For example, affective marketing could change passive green consumers who are willing to pay premium prices for pro-environmental products to greener consumption (Ottman, 1998). Consumer's purchase and consumption of products and services is often related to attempts to achieve, or maintain, ideals conceived either by the self or others (Hawkins et al., 1998). Some consumers may have an ideal self-concept of being environmentally responsible, but the actual self-concept may fall far short of this ideal, with no significant change towards a greener lifestyle. Thus, products and companies that effectively create the image of concern for the environment are likely to be supported by these consumers.

H₂ Consumer environmental belief has a significant impact on consumer buying behaviour

H₃ Environmental behaviour has a significant impact on consumer buying behaviour



H₄ Environmental behaviour and belief has significant impact on consumer buying behaviour

CONSUMER EXPOSURE TO PRODUCT MARKETING COMMUNICATION

Consumer has relatively less opportunity to form an attitude about a green product than about conventional or traditional products, unless they have put any extra efforts to get the knowledge of a particular green product. This is due to the fact that producers of environmentally less damaging products, often make no or little efforts for green or being pro-environmental claims in their advertising (Rand Corporation, 2004). However, in advertising, where reference groups are used frequently, they are very rarely associated with green products. In general green products are often considered to be niche products, and marketing dominated influences for green products and companies are few (Charter et al., 2002). Pooley and O'Connor (2000) argue that providing information about environmental issues to consumer does not necessarily encourage pro-environmental behaviour or attitudes among consumers. (WFA et al., 2002) asserted that, advertising is more effective when it tries to appeal, values which can further become driver to consumer decision about product selection.

H₅ Pro-environment marketing communication is effective in influencing consumer's purchase decision.

TRUST IN THE PRODUCT

Hoyer and Mac Innis (2004) found word of mouth as major influencing factor on the purchase of household or food products', further it is found to be four times more effective than the persuasion by sales assistants in brand switching. On the other hand, negative word-of-mouth may be damaging to the company. The relative performance of green products is often considered to be inferior (Ottman, 1998) early versions of green products were not at par with conventional products and didn't have good performance and this previous experience have been reflected by word-of-mouth, and not redressed by later stage experience of customers.

H₆ Consumers will trust green products and will judge green products based on previous experience or word-of-mouth.

ENVIRONMENTALLY SUSTAINABLE/PRO- ENVIRONMENT PRODUCTS

Defining environmentally sustainable or pro-environment products is difficult and debatable. In a narrow sense, there is nothing which can be regarded as truly sustainable or green product, because all products that we purchase, own, use and discard in our everyday lives will have more or less negative impact on environment, at some stage in their lifecycles. Therefore, products can be classified according to the scale of impacts, and a quality line can be drawn (Cooper, 2000). If a product has a relatively low environmental impact, it is regarded as an environmentally sustainable

product. Another definition of a pro-environment product, for consideration in this paper, is that products should be readily available for purchase of consumers and include those supplied by companies with a reputation for reducing negative environmental impacts from their manufacturing processes.

Table 1: Reliability coefficients

	Environment behaviour	Environment belief	Consumer buying behaviour
Number of dimensions	8	12	6
Cronbach Alpha	0.789	0.723	0.821

Values of 0.70 and above testify strong reliability of the scales

METHODOLOGY

For data collection simple random sampling was used. Markets of sector 7, 15 and 22 were selected using random table from the list of sectors in Chandigarh. The primary data was collected through questionnaire contains the HEP-NEP questions (Dunlap and van Liere, 1978) to measure consumer general environmental belief with the possible responses of strongly disagree to totally agree.

The second part included questions about environmental behaviour, with six questions related to purchasing behaviour based on previous HEP-NEP general environmental belief questions. RSW Green Gauge questions (Ottman, 1998), which segment green consumers by behaviour. The results were measured on a 5 point likert scale. The next part of the questionnaire covered marketing and branding issues related to consumer awareness and again, the HEP-NEP environmental questions were used to contextualize the responses to the consumer product questions again measured at 5 point likert scale.

Description of respondents

	gender		Total
	male	female	
age	15-29	13	9
	30-44	7	16
	45-59	5	7
	69 or above	7	6
Total	32	38	70

Educational description of respondents

	gender		Total
	male	female	
education	10th or 12th	5	4
	graduate	14	11
	pg	12	22
	doctorate	1	1
Total	32	38	70

DATA ANALYSIS AND FINDINGS

DATA COLLECTION AND ANALYSIS

The first part of the questionnaire contains HEP-NEP questions (Dunlap and van Liere, 1978) to measure general environmental belief with the possible responses of strongly disagree, disagree, neutral, disagree and strongly disagree.

H1 Consumer environmental belief has significant impact on general environmental behaviour of consumers

Relationship between Consumer Environmental Behaviour and Environmental Belief

Table 2: Regression model summary, impact of environmental belief and environment Behaviour in consumers of Chandigarh

Independent variable		Regression coefficient	T value	Sig
Constant		2.912	4.570	.000
environmental belief		.395	2.164	.041
Multiple R	.254			
R ²	.064			
Adjusted R ²	.051			
F	4.683			0.34
Sample size.	70			

	Consumer environment behaviour	
Consumer environmental belief	0.254	.034(sig)

There is weak correlation in consumer environment belief and behavior.

A simple linear regression was conducted to predict environmental behaviour from environmental belief. F (1/68) =4.683, p<.05) R²=.064

Since $p<.05$ the H1 is accepted. But very low R^2 indicates that the model is not a good fit model. And there is gap in environmental behaviour and belief.

H2 Consumer environmental belief has a significant impact on consumer buying behaviour

Regression model summary: impact of environmental belief on consumer buying behaviour in consumers of Chandigarh

Independent variable		Regression coefficient	T value	Sig
Constant		2.800	4.816	.000
environmental belief		.400		
Multiple R	.280			
R^2	.078			
Adjusted R^2	.065			
F	5.766			.019
Sample size.	70			

A simple linear regression was conducted to predict consumer buying behaviour from environmental belief. $F(1/68) = 5.766$, $p<.05$ $R^2 = .078$

Since value of R^2 is very low thus model is not a good fit but the H2 is accepted as $p<.05$. Environment belief is explaining 7% of variation in Consumer buying behaviour. And rest 97 % is due to other factors which have not been covered in present study.

H3 Environmental behaviour has a significant impact on consumer buying behaviour

Regression model summary- impact of environmental behaviour on consumer buying behaviour in consumers of Chandigarh

Independent variable		Regression coefficient	T value	Sig
Constant		1.337	4.022	.000
environmental behaviour		.666	8.659	
Multiple R	.724			
R^2	.524			
Adjusted R^2	.517			
F	74.975			.000
Sample size.	70			

A simple linear regression was conducted to predict consumer buying behaviour from environmental behaviour. $F(1/68) = 74.975$, $p<.05$ $R^2 = .524$

Since $p<0.05$ is thus model is a good fit and the **H3 is accepted**. Environment behaviour found to be explaining 52.4% variation in consumer Purchase decision

H4 Environmental behaviour and belief are significantly related to consumer buying behaviour

Independent variable		Regression coefficient	T value	Sig
Constant		.931	1.957	.055
Environment belief	.146		1.187	.239
Environmental behaviour	.642		.698	8.099
Multiple R	.731			
R ²	.534			
Adjusted R ²	.520			
F	38.419			.000
Sample size.	70			

A simple linear regression was conducted to predict the consumer buying behaviour from environment belief and behaviour F (2, 68) 38.419=, p<.05) R²=.534 Since p<.05 model a good fit and **the hypothesis is accepted.**

H5 Pro-environment marketing communication is effective in influencing consumer's purchase decision

Third part if the questionnaire covered branding and marketing issues related to consumer awareness. And each item is been treated as a separate variable. First item was about the feeling of consumers when brands are marketed as environment friendly. Mean of 4.41 with low standard deviation is clear indication that majority of the people have strongly agreed to the statement.

The 7th and 8th statement of third part of the questionnaire was related to expectation of consumers about the marketing communication from the manufactures producing green or pro-environmental products again majority of consumers have expected and demanded to be informed of new improved design/formulas. Mean score of all respondents is 4.07. Respondents also strongly agreed that marketing communication should also aim at informing consumers about environment friendliness of the product. From the results it is clear that the consumers by more when products are marketed as environment friendly Thus H5 is accepted.

H6 Quality perception of green product is significantly related to word of mouth

Statement no. 3 of the third part of the questionnaire was aimed at knowing the quality perception of respondents regarding the performance of green products. The mean score is 2.90, which clearly indicates that majority have strongly disagreed to disagree with the statement. Fourth and fifth statement was to know about basis of perception made by respondent, about the performance of green product. Both the statements have mean score 3.33 or more which means that both word of mouth and own experience of customer is important for quality perception but own experience of customer with the product (mean score 3.73) found to be more important factor of quality

perception. H6 is thus accepted as word of mouth found to be significant factor little behind own experience of customer.

Ninth item of third part of questionnaire was about the opinion related to way green marked are presently being marketed to them, mean score of 3.53 indicate that there is gap in the way green products are marketed to them as people find difficulty in recognising the green products.

Sr. no	Items	Mean	Std. deviation
1	I feel good about buying brands which are less damaging to the environment	4.41	.602
2	It is easy for me to identify these products	3.69	.986
3	Green products are inferior in performance to non-green products	2.90	1.342
4	I have formed this opinion because people I know and trust told me so	3.33	1.201
5	I have formed this opinion because of my own recent experience of a product	3.73	1.048
6	I trust well-known brands to make products which work	3.96	.806
7	In the marketing communication about a product, I expect to be informed of new improved formulas/design.	4.07	.688
8	In the marketing communication about a product, I expect to be informed of how environmentally friendly a product is	4.29	.819
9	Green products are marketed to me in a way which I never notice	3.53	1.046
10	Green products are marketed to me in a way which I find really engaging and relevant to my lifestyle	3.44	1.072

DISCUSSION AND FINDINGS

Consumer's Belief/values, Attitudes towards Environmentally Friendly Products: No respondent strongly disagree, where good majority of the respondents strongly agreed that they would choose environment - friendly brands and products. Respondents reacted positively about buying brands which are less damaging to environment.

Consumer Awareness: Consumers in present research expressed, through their responses that identifying environmentally sustainable products on the shelves of the store is slightly difficult for them. This speaks about the consumer unawareness about the availability of green product and pro-environment brands. Labeling of products should provide information about the extent of greenness of the products to increase consumer's awareness.



Efforts of Marketing: Marketing plays a pivotal role in bringing consumer awareness and encouraging consumer's purchase decisions. Some of respondents agreed that they find difficulty in identifying green products. This provides scope enlarging the existing marketing efforts put by the green marketers in bringing consumer awareness.

Product Performance and Trust: Survey reveals that the green product performance was significantly affected by environmental behaviour of consumers than belief. Further, it is expressed by respondents in the survey that they are likely to trust well known products and judge green products basing on their previous experience. This supports Hong-Youl and Perks' (2005) argument that brand trust is based on experience, information and satisfaction is thus confirmed in the present study.

This study also confirms the existence of an environmental value-action gap among customers in their purchase decisions. This indicates, gap between consumers' belief and behaviour over being green when it comes to purchasing decision.

This paper has also highlighted various aspects of consumer behaviour and shown that consumer preference for greener and pro-environmental goods could be influenced by marketing. Products which are given greater exposure and marketing communication is able to make consumers aware, about greenness of product will be more likely to sell in greater numbers. Pro-environmental values are more likely to result in more pro-environmental behaviour when values and belief are specific enough, the green action aligns with consumers' subjective interests, and product attributes are positively perceived.

A major barrier in the purchasing of green products is: concern over whether the product will perform as expected. However, consumers generally trust the performance of well-known brands, so green products that work well and do not make over inflated green claims could sell successfully under well-known brands.

The current low levels of consumer awareness about global warming, India's brands need to help raise consumer consciousness. Indian manufacturers have yet to find a market for green products, even as consumers have a low awareness of them because of the insufficient efforts made by the marketers. But by embracing the green imperative, and investing in green initiatives



CONCLUSION

This present study confirms the existence of an environmental value-action gap, a gap between consumers' belief and behaviour over being green. This paper has highlighted various aspects of consumer behaviour and has also shown that, consumer preference for greener goods could be influenced by making pro- environment marketing strategies. Products given greater exposure will be more likely to sell in greater numbers in the market. Pro-environmental values are more likely to result in more pro-environmental behaviour when values and beliefs are specific enough, there is possibility that, green action aligns with consumers' subjective interests, and also product attributes are positively perceived by customers. A major barrier or obstacle in the purchasing of green products is: concern about whether the product quality is as expected by customers. But the perception of customers is changing slowly due to increased emphasis on quality by manufactures and increased competition in the market. Consumers generally trust the performance of well-known brands, so green or pro-environmental products that work well and do not make exaggerated green claims could sell more and sustain long in the market, under well-known brands.

The existing relatively low levels of consumer awareness about global warming, India's brands need to help raise consumer consciousness about the general environment. Indian manufacturers have yet to find a market for green products, even as consumers have a low awareness of them because of the insufficient efforts made by the marketers. But by embracing the green imperative, and investing in green initiatives

REFERENCES

- Agyeman, A. K. (2002). Mind the Gap: Why do people act environmentally? *Environmental Education Research*, 239-260.
- Alston, K. and Prince Roberts, J. (1999), "Partners in new development: SC Johnson and the alliance for environmental innovation", *Corporate Environmental Strategy*, Vol. 6 No. 2, pp. 110-28.
- Cooper, T. (2000), "Product development implications of sustainable consumption", *The Design Journal*, Vol. 3 No. 2, pp. 46-57.
- Drieesan, G. (2005). Parental involvement and education achievement. *British Education Research Journal*, 509-532.
- Fowler, G.A. (2002), "Green sales pitch isn't moving many products", *Wall Street Journal*, 6 March, p. B1 and B4.
- Giglioti, L.M. (1992) Environmental attitudes: 20 years of change? *The Journal of Environmental Education*, 24(1), pp. 15–26.
- Hong-Youl, H. and Perks, H. (2005), "Effects of consumer perceptions of brand experience on the web: brand familiarity, satisfaction and brand trust", *Journal of Consumer Behaviour*, Vol. 4 No. 6, pp. 438-52.
- Hoyer, W. (2004). *Consumer behaviour* (3rd Ed). MA: Houghton Hiffin Company.
- Joyce Miller, F. S. (1995). What is green? *European Management Journal*, 322-333.
- Martin Charter, K. P. (2002). *Marketing Sustainability*. UK: Centre for Business.
- Kaiser, F.G., Woelfing, S. & Fuhrer, (1999) Environmental attitude and ecological behavior, *Journal of Environmental Psychology*, 19, pp. 1–19.
- O'Connor, P. a. (2002). Environmental concern and environment behaviour among Norwegian Public. *Journal of Risk research*.
- Ottman. (1998). Green marketing, opportunity for Innovation. *Electronic Green Journal*, 1-3.
- Porter, Michael & Van der Linde, Claas. (1995). Toward a New Conception of the Environment/Competitiveness Relationship *Journal of Economic Perspectives*, 9(4), 97-118.
- Porter, M.E. and van der Linde, C. (1995), "Green and competitive: ending the stalemate", *Harvard Business Review*, Vol. 73 No. 5, pp. 120-34.
- Pickelt.Ozaki. (2008). Pro-environment products: Marketing influence on consumer purchase. *Journal of consumer marketing*, vol 25, pp281-293.
- Reser, J. p. (2005). What and where are values, assessing the impact current diversity of use of environmental values. *Journal of environmental psychology*, 125-146.



- Riley E Dunlap, K. D. (1978). The "new environmental paradigm. *journal of environment education*.
- Shoji Ohtomo, Y. H. (2007). The dual-process of reactive and intentional decision-making involved in eco-friendly behaviour. *Journal of Environmental Psychology*, 117-125.
- Stern, P. (2000). New environmental theories: towards a coherent theory of environmentally significant behaviour . *Journal of social issues*, 407-424.