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A study of green buying behaviour of Indian consumers related to Ayurvedic Cosmetic products

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Abstract---It is well documented that Indian consumers are largely made up of a diverse range of income levels, economic classes and cultural backgrounds. This heterogeneity has profound effects on the way these consumers view and understand products, as well as their willingness to purchase them. The research presented in this paper also aims to investigate how consumers perceive the relationship between products and their healing properties, as well as to identify the key environmental factors that influence consumer decision making. The study was conducted in Panjim City of Goa, India, which is the capital of one of India's smallest states, where various Ayurvedic products are available. The major focus of this paper is identifying the key factors that influence green buying behaviour of people who buy Ayurvedic cosmetic products. 231 customers who use Ayurvedic cosmetic products were considered for the purpose of the study. The findings of the study show that consumers consider both qualitative and quantitative factors while purchasing Ayurvedic products.

Keywords---green buying behaviour, ayurvedic cosmetics, environmental factors, trust.

Introduction

In the past decade, organizations have adopted green purchasing policies and have actively looked for sustainable products and services to be used from their supply chains (Mohsin & Sainulabdeen, 2011). Some of the most commonly mentioned drivers for green buying are: product safety, corporate responsibility, health and environment concerns (Kumar & Mohan, 2012). Green consumers are those who buy green products for environmental or health benefits (Becker-Olsen et al., 2008; Karathanasis & Yaprakkaya, 2007; O'Neil et al., 2008; Peltier et al. 2011). The main reasons for consumers to purchase green products are customer concern about environmental sustainability, health benefits, and ethical issues

(Lerner & Gassenwagen, 2010; O'Neil et al., 2008; Peltier et al., 2011). Green products can be categorized in four ways: environmentally friendly (E), sustainable (S), socially responsible (SR) and cost effective (C) (Becker-Olsen et al., 2008; Karathanasis & Yaprakkaya, 2007; O'Neil et al., 2008).

Educational campaigns have been set up across the globe to help consumers know more about the benefits, risks and possible impacts associated with all types of products available today. Consumers understand some of the benefits of using green products and make purchase decisions based on the above-mentioned factors i.e. customer concerns about their health and environment concerns (Lerner & Gassenwagen, 2010; O'Neil et al., 2008; Peltier et al., 2011). The present study is an extension of a pilot study conducted in Goa, India where the main focus was to explore how consumers perceive the relationship between green buying behaviour of various Ayurvedic cosmetics. The main findings of the study show that consumers consider both qualitative and quantitative factors while purchasing Ayurvedic products.

Literature review

Green consumers are those who buy green products for environmental or health benefits. The term 'green consumers' is used for Nature Conservancy's (2004) classification of individuals who purchase green products for energy efficient, organic, and other purpose that has environmental benefits. In addition to this, 'nature-friendly' behaviour by companies is growing widely in response to pressure from green lobby groups (Moe & Åkerblom, 2006). Given the increasing number and variety of green products in today's market, it is important to analyze the factors that influence consumers' green buying decisions (Lerner & Gassenwagen, 2010).

There are a number of reasons why consumers buy green products which include: (1) reduction of harmful substances that are found in the environment; (2) saving money through cost savings; and (3) improving health by consuming products with less additives and chemicals. The purchase of green products is not only driven by the "do good – feel good" mentality, but also by the "do well – feel well" mentality. This means that consumers buy green products because of the perceived benefits to their own health and well-being (Lerner & Gassenwagen, 2010). The main reasons given by consumers for purchasing green products are that they help preserve the environment, they make them feel good about themselves, and they save money (Carraro et al, 2009; Carraro et al., 2007; Lerner & Gassenwagen, 2010; O'Neil et al., 2008). Other reasons include health benefits including a reduction of exposure to harmful chemicals via organic food and other organic products (Boudreau & Wansink, 2012).

A study conducted by Assefa et al. (2011) on green buying in Ethiopia showed that consumers were willing to pay more for green products, because they would support the development of a sustainable economy and help protect the environment. The study by Lerner & Gassenwagen (2010) found that health factors play a role in green buying decisions. Price is also an important factor in driving green purchasing decisions (Carraro et al., 2009; Carraro et al., 2007; Lerner & Gassenwagen, 2010). Other than price, social norms and marketing

strategies play important roles in making people buy green products (Lerner & Gassenwagen, 2010).

Relevance of the study

The relevance of this study is that it will help marketers to understand consumer's motivations for buying green products, and to develop consumer-centric strategies that can be used during product development (Becker-Olsen et al., 2008; Karathanasis & Yaprakkaya, 2007; O'Neil et al., 2008). The findings of this study will have a direct application on the overall Ayurveda market, which is still in its infancy stage. Currently there are only a handful number of Ayurvedic stores and brands in Goa, which makes it difficult for companies to monitor the popularity and sales volume of their products.

Purpose of the study

The purpose of this study is to understand the relationship between green buying behaviour and several factors that influence consumers' purchasing decisions in order to develop a strategy accordingly. The objectives of this research are: (1) To find out which factors influence consumers' green buying decisions in Ayurvedic products; (2) To study how consumers perceive the relationship between green buying behaviour and various factors that influence product purchase; and (3) To explore consumers' perspectives on the environmental impact caused by Ayurvedic products. The main goal of this study is to provide creative solutions to marketers who wish to take advantage of consumer concerns about the environment and health during product development.

Research objectives

The objectives of the study are:

- To understand consumers' green buying behaviour;
- To analyze the relationship between green buying behaviour and various factors that influence product purchase;
- To study how consumers perceive the relationship between green buying behaviour and various factors that influence product purchase; and
- To explore consumers' perspectives on the environmental impact caused by Ayurvedic products.

List of variables

This research uses a single independent variable - Green buying behaviour – to explore how consumers perceive it in relation to other marketing variables.

The dependent variables are:

- Trust
- Price
- Quality
- Environmental awareness

- Health benefits
- Social image of the product and company
- Peer pressure (normative).

There are several intervening variables that are likely to influence consumers' green buying behaviour such as, preferences, habits, and usage of green products (Lerner & Gassenwagen, 2010). Principal Component Analysis was done to isolate the independent variables from the intervening variables and to gain a better insight into green purchasing behaviour. The following steps were taken to assess the statistical significance of the independent variables (PCA):

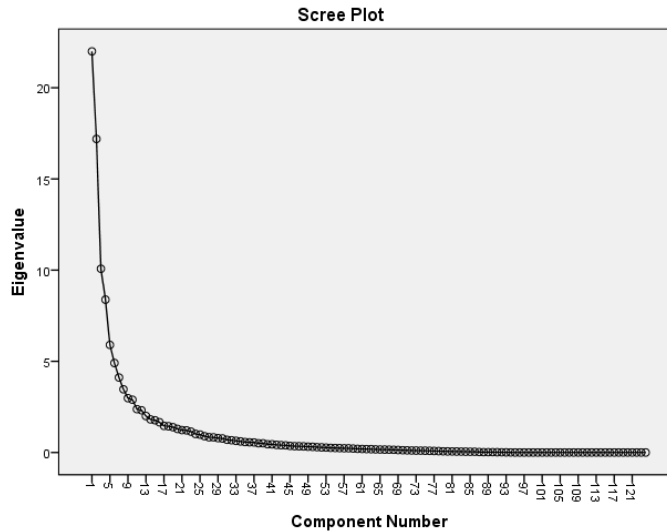
- Confirm that there are at least 7 factors that can be extracted from the data
- Find out how many factors a factor can explain by separating it in order to avoid having an over-abundance of factors.
- Find out if any factor has an exaggerated loadings when compared to other factors, in order to avoid having missing factors in this step (e.g., finding a factor explains very little of the data).
- Find out if there are some factors that have a large range of variances explained (e.g., if you have a factor that explains from 10% to 70%).
- Check if there are missing values in this step by finding correlations between variables and factor scores.
- Check if the residuals in the PCA analysis make sense given the ranges of each factor loadings; this is done manually by checking them one by one against the means and standard deviations of their respective variables.

Table 1
Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
a. Trust	21.996	17.739	17.739	21.996	17.739	17.739
b. Price	17.194	13.866	31.604	17.194	13.866	31.604
c. Quality	10.078	8.128	39.73	10.078	8.128	39.73
d. Environmental awareness	8.383	6.761	46.489	8.383	6.761	46.489
e. Health benefits	5.899	4.758	51.245	5.899	4.758	51.245
f. Social image of the product and company	4.908	3.958	55.201	4.908	3.958	55.201
g. Peer pressure (normative).	4.115	3.319	58.518	4.115	3.319	58.518
8	3.468	2.795	61.312			

Extraction Method: Principal Component Analysis.^a

a. 7 components extracted.



Other factors that might influence consumers' green buying behaviour include environmental consciousness and trust, which can be ascertained from the belief that purchasing greener products is important for consumers (Lerner & Gassenwagen, 2010). The main purpose behind this research is to understand the relationship between green buying behaviour and several factors affecting purchasing decisions. Therefore it is essential to examine the difference between these two variables and find out whether they are a predictor of green buying behaviour. Purchasing green products requires a higher degree of trust in their company than, say, purchasing non-green products. This study will reveal to advertisers how they can build and enhance their trust with customers through advertising methods such as testimonials and endorsements by other consumers.

The study will shed valuable insights into how consumers perceive their purchase decisions on green products, in order to help marketers with future product development strategies. This study will contribute to existing literature by adding to the body of consumer research literature that has focused on the relationship between consumer trust, aesthetics and purchasing behaviour (Lerner & Gassenwagen, 2010). This study will also add to the knowledge of researchers and marketers regarding green buying behaviour. This study will provide an in-depth understanding of consumers' perceptions related to their purchase decisions and the factors that influence this decision. This data would be useful for companies wishing to develop green marketing strategies.

Hypotheses

- H1: Trust is positively related to green buying behaviour.
- H2: Price is negatively related to green buying behaviour.
- H3: Quality is positively related to green buying behaviour.

- H4: Health benefits is positively related to green buying behaviour.
- H5: Environmental awareness of the product and company is positively related to green buying behaviour.
- H6: Peer pressure (normative) and social image of the product and company are negatively related to green buying behavior.

Data collection methods

This study collected data from respondents in the age group of 18–50 years. The questionnaire used for the primary research data collection was specifically designed by the researcher, and is structured to help analyze green buying behaviour in relation to various factors that influence the purchasing decisions of consumers. This survey was conducted through a web-based questionnaire. This means that consumers were asked to answer questions on their computer through interactive software. Consumers were asked to fill up a survey designed for their demographic, which takes only 10 minutes on average as per existing studies by other researchers (Brinkerhoff & Moorman, 2004).

The respondents for this study were chosen through snowball sampling. This technique has been used in many other case studies, based on the research by Draper and Smith (1998) in their paper. The respondents were all from the same company and are employees who have a mental image of the company's brand that is set by internal marketing, thus ensuring that they all view the company in the same way (Draper & Smith, 1998). However, four different departments were chosen to increase the range of people's ages and levels of experience within their respective sections. This increased diversity provides an increased awareness of green buying behaviour among different kinds of people (Serafini & Kandampully, 2006).

Data analysis methods

The data was analysed using factor analysis and other analytical procedures to check for any correlations between variables. This makes the data more accurate, reliable and easier to understand for readers because it means that all independent or intervening variables can be properly isolated from each other and all possible correlations within these variables are identified. The study uses several parametric and non-parametric tests to identify any significant relationships between the variables under investigation. These statistics are appropriate for use when designing new strategies for data analysis and interpreting results.

Results

Table 2. Correlation Analysis		Green Buying Behaviour.
a. Trust	Pearson Correlation	.505**
	Sig. (2-tailed)	.000
	N	231

b. Price	Pearson Correlation	-.124**
	Sig. (2-tailed)	.000
	N	231
c. Quality	Pearson Correlation	.424**
	Sig. (2-tailed)	.000
	N	231
d. Environmental awareness	Pearson Correlation	.487**
	Sig. (2-tailed)	.000
	N	231
e. Health benefits	Pearson Correlation	.519**
	Sig. (2-tailed)	.000
	N	231
f. Social image of the product and company	Pearson Correlation	.505**
	Sig. (2-tailed)	.000
	N	231
g. Peer pressure (normative).	Pearson Correlation	.659**
	Sig. (2-tailed)	.000

The results of the correlation analysis show that:

- Trust is positively related to green buying behaviour:
- Reason: In our study, consumers perceived that trust is crucial component for green buying behaviour. This perception is extremely significant as consumers can buy products from trusted companies along with their well-being.
- Price is negatively related to green buying behaviour.
- In our study, consumers perceived that price has a negative impact in green buying behaviour. This perception is extremely significant as it will provide an advantage to companies by making their products at a lower cost than the other competitors.
- Quality is positively related to green buying behaviour.
- In the study, consumers perceived that quality of the products is positively related to green buying behaviour. This perception is extremely significant as people tend to choose products that are of better quality that can provide them better health benefits.
- Health benefits is positively related to green buying behaviour.
- Health benefits are directly related to green buying behaviour. They are perceived as very vital component. This perception is extremely significant as it will provide advantage to the companies by giving the additional advantage of saving the money spent on healthcare.
- Environmental awareness of the product and company is positively related to green buying behaviour.

- Environmental awareness is a highly significant factor in green buying behaviour. A consumer's perception of sustainability of products and company is the vital indicator for efficient green buying behaviour.
- Peer pressure (normative) and social image of the product and company are positively related to green buying behavior.

Peer pressure and social image has a positive impact on green buying behaviour. Thus, consumers perceive that it has a positive impact in green buying behaviour. This perception is extremely significant as it will provide an advantage to companies by improving the image of the brand and product among the customers and building a strong relation between customers and companies.

Limitations

The study is primarily limited by its sample size. Only a limited number of respondents participated in this study due to social desirability bias. This causes a respondent to provide answers that they think are socially acceptable rather than honest responses to questions asked by the researcher. Therefore, more research needs to be conducted on this topic with a sample size that is large enough in order to accurately represent the target population. Although the study used a large number of respondents, this sample size did not provide full coverage of all demographic factors and consumer characteristics that could be related to green buying behaviour. The study also has several limitations in terms of the data collection methods. Consumers were asked to fill out their demographics and purchase information through a web-based questionnaire, which may have affected the accuracy of the data collected and inferences drawn from it. This makes it difficult to ensure that only accurate responses were given by consumers and to control for potential biases. However, with this type of questionnaire, important data relating to consumers' demographics such as age and gender were obtained, which were important determinants on green buying behaviour.

Conclusion

The paper concludes that it is essential for the green brand managers to develop and implement appropriate strategies for their products in order to increase the number of green consumers. They should make their product quality more environment friendly and provide customer satisfaction. Also they should conduct market research on customer behavior with respect to Ayurvedic products and assess the potential opportunities in green market.

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