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Descriptive Analysis of Internal and External FactorsTowardsBuying Patterns of Eco-Labelled Products

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Abstract

The major threat in front of prevailing and forthcoming generations is environmental deterioration. The overpopulation, aggressive scale of industrialization, excessive depletion of natural resources, dumping of electrical and non-organic waste, and a culture of heavy consumption by the consumers, contribute to the inclination of environmental deterioration. By introducing eco-labels as a marketing strategy, a new segment of environmental communication is offered to potential consumers. The study intends to examine the interest in eco-labelled products associated with various internal and external factors. The analysis reveals that the eco-labels are able to open a new consumption pattern among consumers, which is more environmentally friendly. The result shows that there are significant differences in the interest towards eco-labelled product purchasing in different regions of the targeted state. The future study extends to some other external-internal factors and demographic factors.

Keywords: Consumer awareness, Consumer motivation, Communication, Eco-label, Green Consumers

Introduction

Environmental claims and environmental labels have become a part of marketing strategy in the modern decade. The whole society has a global responsibility to grow without compromising the survival of the coming generations. The development of green marketing opens new vistas for corporates by adding environmental attributes to their business operations. The acute environmental challenges call for environment-conscious behaviour from the part of the government, business groups, and the whole of society. A person who holds a positive environmental attitude shows the tendency to engage in environment-friendly activities more. The main reason showing this tendency resulting from individuals' exposure to knowledge about environmental issues. (Chekima, B.et.al. 2015). The human race is facing fatal environmental hazards from the overconsumption of energy resources, water, and raw materials, excessive waste production, industrial emissions, etc. The dense population of rural and urban areas also contributes to the creation of life-threatening problems. There are huge differences in the per capita consumption of goods and services of different countries and

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world regions. The standard of living and the rate of consumption are directly proportional. The growing purchasing power and the rising influence of social media have enabled Indian consumers to splurge on premium products. Logos, trademarks, and symbols for greener products reflect on product packaging, marketing, advertising communications, websites, and tradeshows. Eco-labels are powerful tools for encouraging a more sustainable consumption culture. It was recognized in Agenda 21, at the Rio Earth Summitt in 1992. More than 400 eco-labels have been found in over 207 countries. More labels and symbols are expected as governments, NGOs, environmental groups, trade associations, etc. demand products that promise environmental and social benefits (Ottman, J.A.2011). Indians are familiar with green marketing and green products. However, massive campaigns are needed to take the green movement to the common man. (Maheshwari and Malhotra, 2011).

The idea of green marketing ensures that there is a sizeable market segment for green consumers who are ready to pay a little more for environment-friendly products. Those consumers are relatively keeping an environment-friendly behavior than other consumers. Industries all over the world try to engage in green practices in the form of using more sustainable materials, using smaller, lighter, and more efficient packages, and producing more energy-efficient products (CEA, 2014). When firms determine to become socially responsible, they face that the environmentally responsible behavior of today is found to be harmful in the future. In terms of ecological labelling, both certification and standardization are correlated. In India, as per ISO 14042 standard, all applicants obligatorily respect environmental legislation with the respective legislation. Eco-labels act as a qualifying criterion for companies to improve their operations in an environment-friendly manner to ensure long-term stewardship and win a competitive edge in the market. To address the environmental dimension in the country, the Ministry of Environment and Forest (MOEF) with technical support from the Central Pollution Control Board (CPCB) introduced the Eco Market scheme in 1991. After two decades, it did not get much popularity, because it lacked adequate promotional policies.

The remainder of the article proceeds as follows. In the next section, critical definitional issues are examined. The researchers attempt to review and synthesise the evolution of Eco-labelled products arguing that conceptualisation of Eco-labelling and green marketing establishes a uniqueness from conventional marketing practices based on the creation of ‘social values’ or by its focus on ‘environmental sustainability’ verge on being pleonasm. Such conceptual issues which create challenges in identifying the phenomenon’s distinctiveness can be side-lined by creating awareness of eco-labelling on firmer ground and, more so on the activity’s function in sustainability. A thorough literature review is conducted in the third section.In the fourth section Eco-labelling is examined as a tool for environmental communication. It is argued that eco-labelling is distinct as it is based on voluntary exchange, is focused on increasing the dignity of beneficiaries, is more attune to the profit and loss signals of the market and has the potential to appeal to a large segment of consumers. Eco-labelling is also not without limitations, which we argue include challenges associated with combining multiple institutional logics, the existence of social issues around which a viable business cannot be built, dependence on consumer demand and an uneven

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playing field in competition with conventional market ventures. The fifth and final section contains data analysis and findings of the data and options for future research.

The Emergence and Evolution of Eco-labelling

What is Eco-labelling?

As per the literary meaning of the concept, Eco-labelling identifies the overall environmental preference of a product as in a good or a service. Specifically, it informs the consumer about the relative environmental quality of a product thereby encouraging the demand for and supply of those products and services that do not damage the environment, stimulating the potential market-driven continuous improvement (Evan &Hiroko). Eco-labels, in other words, ensure that products meet multiple environmental requirements overtime, including how it is made, used and recycled. From office supplies to construction materials, from apparels to footwear, from technology related products to medicines; eco-labels are found on thousands of products.

The greater the developments were, the more was the global concern for protecting the environment. Initially, the corporates of the developed countries identified a competitive advantage in the well-being of the environment and thus paved paths for environmental labels such as 'recyclable', 'CFC-free', 'eco-friendly', 'low-energy', and 'recycled content'. Such a labelling ignited the social responsibility amongst the citizens of this world to purchase such products that reduced the adverse environmental impacts through their purchasing decisions. Eco-labelling creates a win-win situation for the governments and the business houses with its three core objectives of protecting the environment, encouraging environmentally sound innovation and leadership and building consumer awareness of environmental issues. (Evan &Hiroko).

Eco-labelling was initiated by Germany in 1977 with its 'Blue Angel' program to educate the consumers about the environment friendly attributes of different products; followed by Canada through its eco-label program 'Environmental Choice Program' in 1988. India too followed its seventeen other counterparts and launched its eco-labelling scheme called 'Ecomark'in 1991. The United Nations recommends the various governments to promote eco-labelling to bring a change in the purchasing and consumption behaviours of worldwide consumers. While The United Nations Conference on Trade and (UNCTAD), the UN Environment Program (UNEP) and the World Trade Centre (WTC) are working on the policies of eco-labelling, the International Organization for Standardization since 1993 is focusing on standardizing the schemes of environment labelling.

Review of Existing Literature

The world today is on the threshold of saving itself with a magic wand of 'Greening' the environment(Peattie, 1995). Ecolabelling is the medication prescribed to cure the world of a dreadful disease of pollution and devastation. It is a way of awakening and enlightening the citizens about the effects of production, consumption and the left-out wastes of this consumption on our environment (Ibon Galarraga Gallastegui, 2002). The researchers world-wide have identified three types of Ecolabels. Type I labels identify environment friendly products in comparison to the products made of the components that are harmful to the

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environment; type II labels point at the one-sided informative environmental claims made by the manufacturers of the products and type IIIlabels highlight measures and quantified information about products based on independent verifications (OECD, 1997). Of these three types, type I is synonymously known as ecolabels (UNCTAD, 1994a). The products that meet the type I criteria are bestowed with an eco-logo for a fixed period of time after a due payment of fees and application costs (OECD, 1997). The promotion of ecolabels raises a serious question as to the need of its usage (Ibon Galarraga Gallastegui, 2002). In response to this question, one has to understand that most of the environmental problems are due to the massive increase in the unsustainable consumption practices of the consumers and this consumption finds its source in the practice of manufacturing products that pollute the environment. Thus,intensifying the importance of ecolabels at a point of manufacturing products (Durning, 1992). This need of sustainability of environment led the Federal Republic of Germany to launch 'Blue Angel' in 1978 (Labandeira Villot et al., 2007; Reisch, 2001) igniting other countries of the world to contribute to the growth of a cleaner production leading to a sustainable consumption (UNCED, 1992).

The corporate world views the concept of ecolabelling as a strategic tool that guarantees a win-win situation ensuring a more organic way of producing goods on one hand and gaining consumer acceptance to buy the goods that do not disturb the environment on the other (Thogersen et al., 2010). Ecolabels are positioned as a responsibility to design and improve products with higher environmental performance (Wagner, 2008) cautioning the corporates to create eco-innovation process and differentiation based on sustainability (Dangelico and Pujari, 2010). Firms with large number of products backed with ecolabels carry a competitive advantage of creating customers who consciously are involved in changing their buying patterns (Bruce et al., 2006). The prevalent human tendency emphasises that anything consciously done increases the value both in terms of production cost and the cost of purchasing; leading to the restriction of the number of consumers purchasing eco-friendly products (Potter et al., 2021). Thus, leading the researchers to conduct a study on identifying the internal and external factors influencing the buying patterns of eco-labelled products.

Eco-labels as a tool for environmental communication

Ecological mindfulness: From the perspective of green consumption, ecological literacy is the key factor, which determines how the consumers are being educated about drastically inclining environmental issues and the willingness to apply this information in their day-to-day life to reduce the detrimental impacts on the environment (Peattie, K.2010). A green company should try to educate consumers about green products and make the consumers aware, of how these products protect health and preserve environmental products in a similar category (Sara and Madhumita, 2014).

Added benefits of eco-labels: An eco-labelled product differs from a non-eco-labelled product in the way of environment-friendly production. The consumption of this eco-labelled product gives benefits not only to the consumer only but also to the whole society by reducing environmental degradation (Brouhle& Khanna, 2012). Carbon reduction labelling schemes

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are treated as an effective measure for generating environmental awareness of climate change and promoting green consumption (Zhao, R. et.al. 2016). Voluntary Environmental Programs (VEP) are more effective than firms who own environmental declarations because they get more reputation, and value and enjoys higher economic performance in terms of collective production of VEP brand signal (Potoski & Prakash, 2013).

Customers purchasing choice: Advertisement enhances product awareness among consumers. When the consumer gets some product information through advertisement, then he will try to gather more and more information about those products and how it affects his demographic factors. (Sogari, G. et. Al. 2016).Consumers have some expectations about the product's price, size, design, colour, and amenities (Waechter, S. et.al. 2015). The growth of green consumerism in developing countries is at the lowest rate because of inadequate consumer awareness and motivation, lack of support from government authorities, and high implementation cost of eco-certification programmes.

Ecologicaltraits in a product and the need to keep transparency: Green attributes alone create consumer satisfaction. The consumer wants to consume green products but not at the cost of utility of non-green products. By watching green advertisements regularly, some changes happen in consumer behavior culture and create an empathetic feeling towards the environment. Green advertisements help develop consumers' environmental awareness and motivate them to consume eco-friendly products. (Morel, M. & Kwakye, F. 2012). Green attributes of the products are clearly defined and stated; still, they face some problems in products' greenness. Consumers are vigilant to gather more information regarding the eco-attributes of products (Woolverton, A & Dimitri, C, 2010). Green products are labelled on different kinds of environmental considerations like recyclability, ozone friendliness, toxic emissions, wild life safety, consumption of water, waste generation, etc., the success of green labels depends on to what extent a consumer interprets the connection between environmental issues and the role of these labels and products for solving these environmental issues (Banerjee, A. and Solomon, B.A., 2003).

In long-gone times, demographic characteristics were the only points treated as factors affecting consumers' buying decisions, but in the modern decade, various internal and external attributes and theories impinge consumer-buying decisions (Faiers, A. et.al, 2007). The different groups of green consumers are resource conservers, health fanatics, animal lovers, and outdoor enthusiasts. Regular green product consumption behavior will become effective only if the products are delicious, hygienic, sanitary, effective, attractive, affordable and easy to find in mainstream outlets (Ottman, J.A. 2011).

Role of companies and Government in eco-labelling program: Companies are providing guidance and support to the consumers in reducing the negative environmental impact of the products during the use and disposal period (Schuchard, R. 2008). (Gutierrez, Y.B. et.al, 2008) discussed the role of producers to adopt alternative methods to reduce the pernicious impact on the environment by reselling to second-hand dealers and donating to charitable societies. Government develops eco-labels under public administration. There are options to encourage the adoption of particular standards by public measures. It involves giving subsidies to reinforce the demand and supply of eco-friendly products, information

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campaigns, financial support to private labels, and legislation outlining minimum requirements. Public procurement policies also promote green consumption (Korteland, M. 2007).

Evaluation criteria

The criteria used for the study is consumer response. The success of an eco-labelling program purely depends on the cognizance of consumers about these programs. The success of a consumer-oriented marketing strategy is measured in terms of its awareness created among consumers, understanding, and behavior of consumers. The awareness indicates how much a consumer knows of the program's existence. Understanding indicates the consumers' awareness of various environmental issues and the meaning of eco-labels or environment-friendly labels and the information about how far these eco-labelled products help to reduce the negative impacts on the environment. Consumer behavior towards a particular product depends on many external and internal factors, and eco-labels are only a part of externalones. The cross-sectional survey design was adopted by the study. Survey design essentially involves gathering primary information from sample respondents. This was complemented by oral interviews of selected respondents.

Objectives

The objectives of the study are based on two external factors and two internal factors. The dependent variable taken for the study is interested in buying eco-labelled products by comparing with the independent variable eco-labelled product pricing and eco-labels (external factors), consumer awareness, and consumer motivation (internal factors). The objectives are as follows:

1. To examine the relation between eco-labelled product pricing and eco-labels in products (external factors) and the preference for buying eco-labelled products.
2. To examine the relationship between consumer awareness and consumer motivation (internal factors) and preference in buying eco-labelled products.
3. To study the interest in buying eco-labelled products in different regions of the particular district.
4. To examine the relationship between satisfaction from the consumption of eco-labelled products and (i) the preference in buying eco-labelled products (ii) and the frequency of purchasing eco-labelled products.

Hypothesis

The following null hypothesis are set out for the study:

Ho a: There is no significant association between external factors (i) eco-labelled product pricing, (ii) eco-labels are the preference in buying eco-labelled products.

Ho b: There is no significant association between internal factors (i) consumer awareness, (ii) consumer motivation, and the preference for buying eco-labelled products.

Ho c: There is no significant difference in the preference towards buying eco-labelled products in different regions.

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Ho d: There is no significant association between satisfaction from the consumption of eco-labelled products and (i) the preference for buying eco-labelled products and (ii) the frequency of purchasing eco-labelled products.

Data sources

Mainly the primary data used for the study is collected from Gulbarga (now named Kalaburagi) district. For the study,Kalaburagi district is divided into three parts, southern, central, and northern to make the result easy to compare. Using a purposive random sampling technique, a total number of hundred respondents were collected from all three regions, 31 respondents from the northern parts, 36 respondents from the central region, and 33 respondents from the southern region. The data was collected by interviewing the respondents face to face. The responses of the consumers are taken under four heads, eco-labelled product pricing, eco-labels on products, consumer awareness, and consumer motivation.

Eco-labelled product pricing: In the market, the main challenge faced by the eco-labelled products is their price. Different barriers to green product purchasing like the lack of enough time to make a decision, higher prices, and the scarcity of available information. Consumers make electronic appliance purchase decisions based on product environment performance like energy efficiency, water consumption, fuel consumption, etc. (Young, W. et.al; 2010). Environmental awareness and health consciousness make the consumer seek eco-friendly products. Taking the other consumers into consideration, the experience they derive from the consumption of green products allures them into bearing a premium (Biswas, A & Roy, M. 2015). The higher prices of green products are compromised through giving subsidies and outright product giveaways.

Eco-labels: There are a lot of issues, which force corporate to move on the green path, among these the most important cause is the growing public awareness regarding environmental degradation. (Verma, P.K. 2012). The eco-labelling concept emerged in the 1970s when the global market demanded a comprehensive tool that links environmental regulations with performance standards. By adopting eco-labelling strategy, a firm can disclose its eco-friendly policies and programmes and its achievement toward carbon footprint.

Customer Awareness: Some past studies show that educated consumers are concerned about green products. In the case of developing countries, consumer awareness is one of the barriers to green consumption. Corporations adopt print and visual media and other modes to widespread the knowledge of environmental awareness and eco-friendly products (Maheshwari, A & Malhotra, G. 2011). Better environmental education and awareness of serious environmental issues and consequent climate changes create a demand for eco-friendly products (Ansar, N. 2013). As concerned as India, green consumerism is still in a niche stage because the consumers lack environmental knowledge and lack information about green products (Cherian, J. & Jacob, J. 2012); Sharma, Y. 2011).

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Consumer Motivation: In the olden times, green marketing motivates consumers to behave in an environmentally friendly manner. A green marketing strategy focused on motivating the consumers to go for green products and found that the consumers' preference for such products depends on the utility of the product. (Polonsky, M.J. 2011). The stakeholders involved in the labelling program are the producers, processing industry, retailers, wholesalers, shops, and professional or daily consumers. The implementation of eco-labelling programs in an organization produces demand, market, and skills to implement standard requirements.

Data analysis

Table 1: Pearson's Chi-Square estimates

Path	**d.f.**	**Value**	**Asymp.sig (2 sided)**	**Remarks**
EPP ⟶ IEP	4	11.176	0.025	0.025 < 0.05. Ho [a(i)] Rejected
EL ⟶ IEP	4	7.048	0.031	0.031 < 0.05. Ho [a(ii)] Rejected
CA ⟶ IEP	4	5.017	0.027	0.027 < 0.05. Ho [b(i)] Rejected
CM ⟶ IEP	4	4.630	0.025	0.025 < 0.05. Ho [b(ii)] Rejected

Note: EPP = Eco-Labelled Product Pricing, EL = Eco-labels, CA = Consumer Awareness, CM = Consumer Motivation, IEP = Interest in Eco-Labelled products (Dependent Variable). Level of significance = 0.05

Table 2: Kruskal-Wallis H estimates

Particulars	**Region**	**N**	**Mean Rank**	**Remarks**
Are you interested in eco-labelled products?	Northern	31	49. 47	0.042 < 0.05. Rejected Ho c.
	Central	36	43.78	
	Southern	33	58.80	
	Total	100		
Chi-square value	6.324	d.f. = 2	Asymp. Sig. = 0.042	Level of significance = 0.05

Table 3: Spearman's Rank Correlation Coefficient estimates

Path	**Rho (ρ) value**	**Sig. value**	**Remarks**
IEP ⟶ SCEP	-0.140	0.165	0.165 > 0.05. Accepted Ho [d(i)]
FEPP ⟶ SCEP	0.394	0.000	0.031 < 0.05. Ho [d(ii)] Rejected

Note: SCEP = Satisfaction from the consumption of Eco-labelled Products, IEP = Interest in Eco-labelled products, FEPP = Frequency in Eco-labelled Product Purchasing. Level of significance = 0.05

Conclusion

From the preceding analysis, clear lessons emerge such as how the eco-labelling programmes are getting influenced by various external and internal factors. Table 1

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describes the association between IEP and external factors (EPP, EL) and internal factors (CA, CM). Ho [a(i)] & Ho [a(ii)] rejected by proving that there is an association between interest in Eco-labelled Products and Eco-labelled product Pricing and Eco-labels. The Ho [b(i)] & Ho [b(ii)] also rejected and explains the existence of a relationship between the Interest in Eco-labelled Products and Consumer Awareness and Consumer Motivation at 0.05 level of significance.

Table 2 explains the Interest in Eco-labelled Products based on different regions. The test results show that there is a significant difference between the interest in eco-labelled product purchasing in southern, northern, and central regions. The purchasing decision of consumers of each region is influenced by demographic and other external-internal factors.

Table 3 indicates the association between satisfaction from the consumption of eco-labelled products and two variables like interest in eco-labelled products and the frequency of eco-labelled product purchasing. Ho [d (i)] is accepted on the grounds of moderately weak and negative relation existing between SCEPand IEP at 0.05 level significance. Ho [d (ii)] is rejected on the grounds of a moderately weak positive relation existing between SCEP and FEEP at 0.05 level of significance.

The scope of further research in the area-wise classification of respondents in rural and urban areas is to test the significant difference in their interest in eco-labelled products. The other internal factors like consumers' attitudes, and knowledge, and external factors like the availability of eco-labelled products, peer influence, and shelf space need to be tested to get more clarification in the interest in the consumption of eco-labelled products. Demographic factors like age, gender, education, income, social class etc. also have a great impact on consumers' eco-labelled product-purchasing decisions.

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