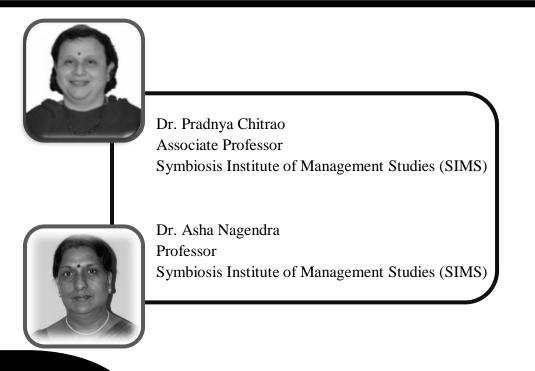


'Green' Awareness and Green Consumption Trends: A Case Study of Pune

(Maharashtra), India



Abstract

"Why should man expect his prayer for mercy to be heard by what is above him when he shows no mercy to what is under him?"

-Pierre Troubetzkoy

Slowly but surely, the world today is realizing why green management matters, and why it is imperative to take a green approach to business and management. The authors wished to investigate as to how educated Indians are trying to counter the growing environmental issues that progress brings in its wake. 500 educated consumers from all walks of life were selected by the random stratified method. A structured questionnaire was administered together with a personal interview to gather primary data. Results showed that most people were aware of sustainability and global warming mainly through social networking sites. Majority of the respondents kept an eye on their water and electricity consumption. It was heartening to note that not a single Puneite consumed non vegetarian food on all seven days of the week. Most respondents went in for cfl bulbs that resulted in a saving of both electricity and money.

* Keywords: Awareness and use of 'green' products, Global warming, Energy saving

1. Introduction

India is a land of diverse cultures each dating since ancient times. Today, in the 21st c, it is poised for extensive growth in all areas especially economic growth. Today, it figures prominently on the world map in terms of business, peace talks, nuclear energy, and many other areas of global concern. It is one of the emerging markets that developed countries are turning to for trade and business purposes. Given this background, it is becoming necessary for India also to be part of the growing global concern about depleting environmental resources and the global warming that is already affecting agriculture, marine life and consequently businesses. The authors wished to find out how India is trying to counter the growing environmental issues that progress brings in its wake. They wished to ascertain whether, Indians are aware of the dangers of ignoring environmental sustainability issues, and if they are aware, how are they helping to sustain a "green environment". The results of the survey would be helpful for marketers and policy makers in order to conserve natural resources and make a change in the life styles of people.

2. Going 'green' in the corporate world

The world wide campaign to go green should not be restricted to a few citizens. a few companies have realized that it is a win-win proposition to implement green business practices and to conduct corporate social activities.

2.1. Bank of America, according to their corporate website has reduced by 32% the use of paper from 2000 to 2005 even though its customer base has increased by 24%.

2.2. Dupont, which had faced the ire of green advocates, has now drastically controlled its emissions (by 63%) of airborne carcinogens and greenhouse gases, and thereby remained ahead of the timetable set forth in the controversial **Kyoto** protocol.

2.3. Coca-cola has kept three environmental goals namely, water management, eco friendly, sustainable packaging, and climate and energy protection through community recycling programmes and overhauling their packaging designs.

2.4. Toyota has contributed to green business by coming up with an eco friendly model namely, **Prius**, the world's first mass-market hybrid vehicle. The environmental protection agency has crowned the Prius and its 48mpg as the most fuel-efficient car available for purchase in the US, the UK department of transport has also ranked Prius as the third least carbon emitting auto in the country. Keen to cement its position as one of the world's greenest multinationals, **TOYOTA** has announced a major research project to identify the most energy efficient best practices that firms should be embracing.

2.5. Air India, India's national carrier Air India has targeted to become the first green airline within a year's time. The company's corporate environment policy seeks to reduce carbon emission, noise and other forms of pollution as well as reduce consumption of fuel and other natural resources. It plans to introduce a documentation management system, and aims to go electronic with an e-filing system to cut down on our use of paper. The company claims to have achieved carbon dioxide emission savings to the tune of about 38 crore kilograms through various green measures. The air-carrier has already implemented the fuel gap analysis along with international air transport association (IATA) two years ago.

2.6. Tata Motors: Through conservation, recycling, and reuse of industrial oils, Tata Motors is reducing its oil consumption. By reclaiming the oil with ems system, it managed to reduce its oil consumption year on year. The cumulative oil saved, on this account from 2000 to 2010, would amount to a total greenhouse gas reduction of approximately 913 tonnes of CO_2 equivalent. True to its core value of 'passion for engineering', the company is a pioneer in the use of new technology in designing new processes.

Direct green management measures such as certified environmental management systems (ems) or tools like life cycle assessment activities are considered to improve corporate environmental performance by compelling companies to introduce environmental goals and management structures as well as programs to achieve them (Coglianese and Nash, 2001); these same measures indirectly induce organizational learning and provide critical environmental information (Melnyk *etal*.2003). Green management measures such as certified ems, environmental labelling of products, life-cycle assessment activities, or waste disposal measures require investments of a lot of money and personnel. Establishments with environmental capabilities will readily undertake them. Companies which already have realized environmental product or process innovations in the past are more likely to possess such capabilities as they have earlier overcome management barriers such as lack of finance or know-how. The companies cited above and Indian giants like Bajaj, Wipro, etc have separate departments that handle these aspects.

3. Research Methodology

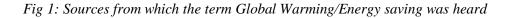
After an exhaustive review of pertinent literature and in view of the increase of the above mentioned incidences of pollution, the authors planned to conduct a survey on the citizens of Pune (State of Maharashtra), India to find out whether the educated in the city at least try to make their consumption choices of various resources and their disposal in a manner that will either eliminate or minimize global warming and eroding of the environment. The major objective of the research was to ascertain whether Indians are aware of the dangers of ignoring environmental sustainability issues, and if they are aware, how they are helping to sustain a "green environment". The survey was administered on stratified random sampling basis to 500 citizens of Pune in service and in management education as also software professionals. The authors intend to back up this survey with secondary sources to prove that environmental sustenance awareness among citizens

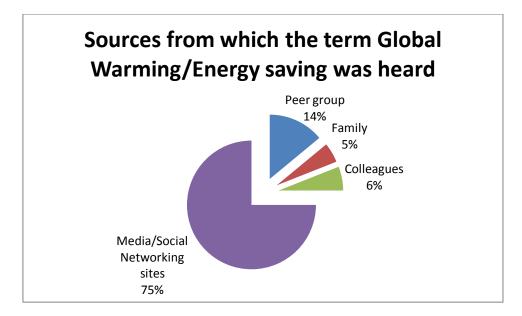
along with consumption and disposal behaviours that are environment friendly will go a long way in environment protection. The paper also sought to study the government regulations regarding pollution by companies.

4. Results (Figures and tables)

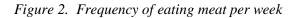
Findings about Consumption Patterns among Educated Puneites

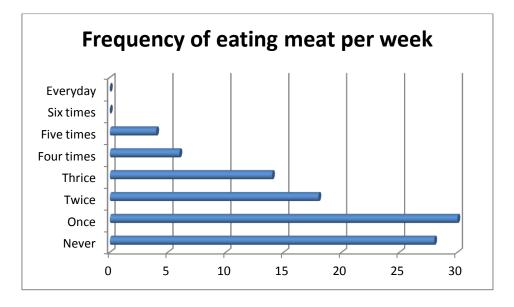
The survey conducted among the educated citizens of Pune revealed that majority of them were aware of sustainability and global warming. The source of this information was mostly social networking sites rather than through family. The second source of knowledge was peers. This is also depicted in Figure 1 below.



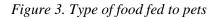


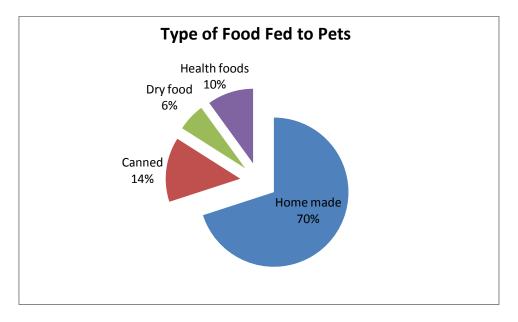
It also showed that most people keep an eye on their electricity bills. But a majority seemed not to closely monitor the consumption of water unless there was a scarcity. In terms of adoption of strategies to save environment, Puneites seem to believe strongly in saving energy in order to protect environment followed by recycling. They also favour the use of mobile phones as against landline connection. In the unstructured interview, they all said that mobile phones were far more convenient than landline connections and that it was possible to contact any one even if one was away from either home or the work station. None of the five hundred persons who answered the questionnaire stated that they ate nonvegetarian food on all seven days of the week. Consumption of non-vegetarian food has been established to increase eco-footprint of human beings. Human beings are also the only species on Earth to kill other living creatures for reasons other than satiation of hunger. Figure 2 below expresses these findings diagrammatically.



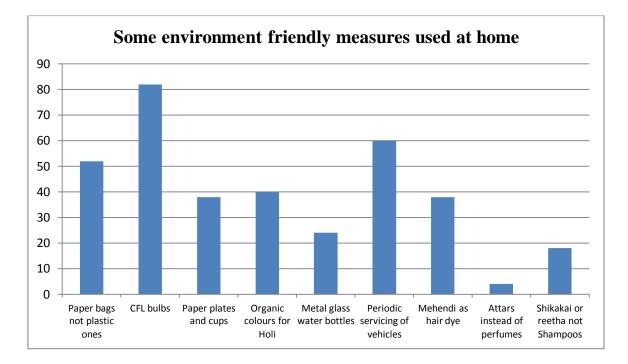


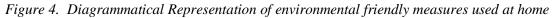
The survey also showed that most pet owners in Pune (70%) fed homemade food to their pets while only 14% fed canned food to them. A select few (10%) added health food to the diet of their pets. This indicates that a majority of Puneites go in for controlled and green consumption for their pets.





Very few said that they refused the plastic bags given in shops or carried their own cloth or paper bags. Majority of the Puneites were found to donate their clothes though seventy percent of the persons who answered the questionnaire never bought second hand items.





5. Conclusion

The survey proved that the educated middle and upper class people of Pune are aware of the need to conserve natural resources. Majority have started paying heed to the wasteful consumption of water and electricity. Awareness of the phenomenon of global warming and the various means to conserve and protect natural resources was evident among the respondents. Controlled consumption of animal products and plastic carry bags as also recycling of paper and clothes proves that Puneites are becoming eco friendly. Most Puneites go in for CFL bulbs that result in a saving of both electricity and money. Very few of them use solar panels. In fact, if the common man refurbished his home with the latest energy saving devices, it can lead to a reduction of 45 % to 70% energy consumption. The city is witnessing a sharp increase in the number of environment-conscious builders as well as individuals. Yet, sustainability is still a long way off. Individuals still need to practice more environmental friendly practices at home and at work. Car pools still do not seem to have gained popularity in Pune albeit the rising fuel prices. Solar energy needs to be harnessed to a greater extent in the form of solar panels for bath water and lighting during summers. In fact, India, being a tropical country, has no dearth of sunlight throughout the year. A proper understanding of this technology is required to utilize solar energy for various purposes.

Reference

- 1. Coglianese C and Nash J (eds.). 2001. *Regulating from the Inside: Can Environmental Management Systems Achieve Policy Goals?* RFF Press: Washington, D.C.
- 2. Cogoy, M. (1999), '*The consumer as a social and environmental factor*'', Ecological Economics, Vol. 28, pp. 385-98.
- 3. Der Grune Punkt, 2005. The Letters of the Law. 26.1.2006. "The Letters of the Law".
- 4. Divan, S. and Rosencranz, A. (2001), *Environmental Law and Policy in India, Cases, Materials and Statutes*, Second Edition; Oxford University Press, New Delhi, India.
- 5. Friedman TL. "Flush with Energy" Op-Ed columnist, New York Times, Aug10, 2008.
- 6. Matthieu Ballu and Edouard Toulouse. Coolproducts for a cool planet campaign

www.coolproducts.eu contact: matthieu@stefanscheuer.eu December 2010

- 7. Melnyk SA, Sroufe RP, Calantone R, 2003, Assessing the Impact of Environmental Management Systems on Corporate and Environmental Performance, Journal of Operations Management, 21: 329-351
- 8. Mukhopadhyay, K. (2002), *Energy Consumption Changes and CO2 Emissions in India*, New Delhi: Allied Publisher.
- 9. OECD Publications (2008), *Promoting Sustainable Consumption: Good Practices in OECD Countries*, Vol. 2, OECD Publications, Paris, p. 7.
- 10. Pranay Lal and V Jha. Judicial Activism and the Environment in India: Implications for Transnational Corporations. http://ep.lib.cbs.dk/download/ISBN/x646017607.pdf.
- 11.Uzzell, D. and Rathzel, N. (2008), "*Changing relations in global environmental change*", working paper presented at the Conference on the Human Dimensions of Global Environmental Change, Berlin, 22-23 February.
- 12. Wouter Poortinga, Linda Steg, Charles Vlek and Gerwin Wiersma. *Household preferences for energy-saving measures: A conjoint analysis.* Journal of Economic Psychology. Volume 24, Issue 1, February 2003, Pages 49-64.