

Assessing Ecological Behaviour : Hawkeye Approach

Jaideep Singh* and Sandeep Singh Virdi**

* School of Management Studies Punjabi University, Patiala

** School of Management Studies Punjabi University, Patiala

Abstract

Statement of Purpose : The purpose of this paper is to analyze the ecological level in consumer behaviour in the contemporary globalized environment and how that shapes consumer's perceptions and his assessment of products in order to sustain environment for future generations.

Design / Methodology / Approach : This paper uses a qualitative as well as a quantitative approach which is based on theories and practices concerning social contagion, advance technologies, changing attitudes, group dynamics and collective action. A random sample survey of 106 individuals was used to verify the conceptual model and framework.

Findings : The research shows that attitudes, effectiveness of collective action, regulatory infrastructure by the government to save environment are required to control ecological behaviour. The information has to be disseminated and awareness has to be maintained by a high degree of interconnectivity between participating individuals and groups. Other determinants of switching movement continuity include the role of media and social networks, protest groups, the issues to be faced and the quality and nature of social ties, experiences and emotions that link in preparation of consumer psychology to switch the product.

Research Implications : This research gives the reflection of the demographic profile of consumers and their attitudes towards the environment hence useful for the organizations or groups involved in improving the understanding how consumers feel and what attitudes should best define their way of behaving positively in relation to environmental problems. This study will be of value to organizations to recognize the social responsibility and the need to modify and develop the products and their packaging to retain the customer base and to attract the new ones.

INTRODUCTION

With the Industrial Revolution in Europe, there was tremendous change in lifestyle of the people, and as technology advanced, the want for more convenience and comfort came in existence. Since then, human needs have grown exponentially and in this evolution they kept on developing new products without knowing and thinking about their adverse impact on the environment. Slowly people became aware about the environment and then only, the focus of 'Green Marketing' came in existence and now in the third generation of marketing the need for a sustainable environment has been given importance by the organizations and using sustainability factor in developing the product and increasing their customer base.

The consumer behaviour has been influenced by the advancements in technology, globalization, competition and other economic forces. However, with the environment aspect coming in existence, the psychology of the consumer has changed and depending on the demographic profile, the consumers tend to make decisions so as to contribute in keeping the environment sustainable.

Products, as the interface between consumers and consumption activities, can give immediate and direct responses to users' operations: how it is perceived, learned, and used. Increasingly, consumers choose ecological products when they shop, not only because it is a healthier option but also because it helps to sustain the environment for future generations.

Traditionally, explanations of consumer behaviour are cast in terms that are rooted in cognitive psychology (Bargh, 2002). Before people buy, or choose, or decide, they engage in more or less elaborate, conscious information processing (Chaiken, 1980; Petty, Cacioppo & Schumann, 1983). Information processing may lead to certain attitudes, and these attitudes, in turn, may or may not affect decisions. The amount of information that is processed is dependent on various moderators, such as involvement (Fazio, 1990; Krugman, 1965). In addition, the sort of information that finally influences your attitudes can differ too. Attitudes can be based more on cognitive beliefs, such as when one finds a product very useful, or more on affect, such as when a product has important symbolic meanings (Venkatraman & Mac-Innes, 1985).

REVIEW OF LITERATURE

The "consumer" includes both personal consumers and business / industrial / organizational consumers. Consumer behaviour explains the reasons and logic that underlie purchasing decisions and consumption patterns; it explains the processes through which buyers make decisions. The study includes within its purview, the

interplay between cognition, affect and behaviour that goes on within a consumer during the consumption process: selecting, using and disposing of goods and services. (Schiffman and Kanuk, 2004)

Though similar, consumers are unique in themselves; they have needs and wants which are varied and diverse from one another; and they have different consumption patterns and consumption behaviour. The marketer helps satisfy these needs and wants through product and service offerings. For a firm to survive, compete and grow, it is essential that the marketer identifies these needs and wants, and provides product offerings more effectively and efficiently than other competitors. A comprehensive yet meticulous knowledge of consumers and their consumption behaviour is essential for a firm to succeed. Herein, lies the essence of Consumer Behaviour, an interdisciplinary subject, that emerged as a separate field of study in the 1960s. (Solomon, 2009)

Consumer Behaviour may be defined as "the interplay of forces that takes place during a consumption process, within a consumer's self and his environment, - this interaction takes place between three elements viz. knowledge, affect and behaviour; - it continues through pre-purchase activity to the post-purchase experience; - it includes the stages of evaluating, acquiring, using and disposing of goods and services"(Peter et al, 2005).

Cognition : This includes within its ambit the "knowledge, information processing and thinking" part; It includes the mental processes involved in processing of information, thinking and interpretation of stimuli (people, objects, things, places and events). In our case, stimuli would be product or service offering; it could be a brand or even anything to do with the 4Ps.

Affect : This is the "feelings" part. It includes the favourable or unfavourable feelings and corresponding emotions towards stimuli (e.g. towards a product or service offering or a brand). These vary in direction, intensity and persistence.

Behaviour : This is the "visible" part. In our case, this could be the purchase activity: to buy or not a buy (again specific to a product or service offering, a brand or even related to any of the 4 Ps) (Loudon et al, 2002).

Perceived consumer effectiveness was first examined by Kinnear, Taylor and Ahmed (1974) as the measurement of one's belief in the results of his/her own actions. The intention and behaviour of a person is the function of his/her conviction that the occurrence or stopping of an event depends on his/her activity (Thompson, 1981).

Social marketing also has a role in shaping perception of the consumers. The processes involved in the social marketing have been shown in the Fig. 1

below. The role models can be from sports, actors, businessman or anybody being a high net worth person or a youth icon to appeal the consumer to behave in eco-friendly way. Governments, Institutions often use this kind of marketing in disseminating the social messages.

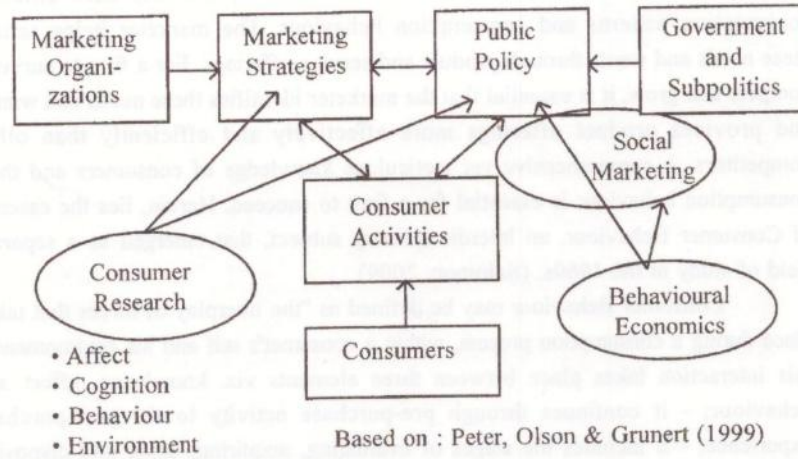


Fig. 1 : Inter-relationships between Various Domains

Szabolcs Nagy (2004) examined the reasons why consumers do not purchase the environmentally friendly products. Having studied the literature, seven reasons were ranked as follows :

- The higher prices of environmentally friendly products,
- The moderate supply of environmentally friendly products,
- The force of the consumers' habit,
- The lower efficiency and quality of environmentally friendly products,
- The limited impact of individual consumption on the state of the environment,
- The poorer, artless appearance of environmentally friendly products,
- The limited amount of information available on environmentally friendly products.

The probable reason for people not turning in expected numbers as eco-friendly users can be understood by the Fig. 2 below as it clearly demarcates the evaluation factors and how the behaviour is attenuated due to the Attitude-Intention behaviour gap.

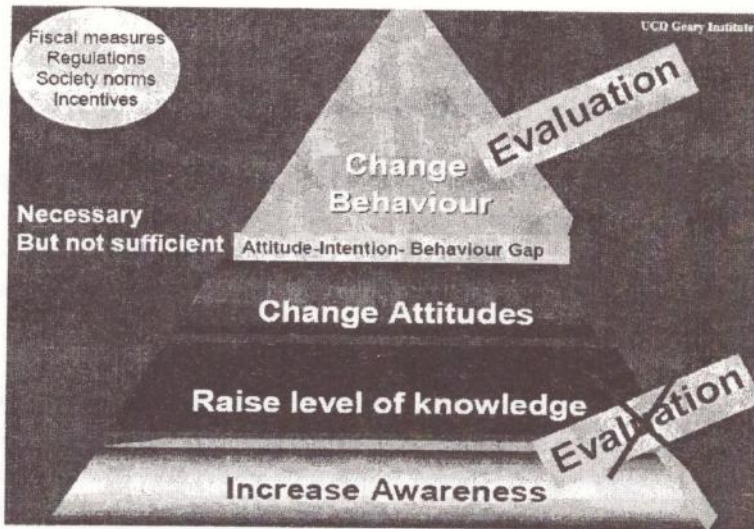


Fig. 2 : The Changing Behaviour Pyramid
(Developed by the Geary Institute at the University College Dublin)

NEED OF STUDY

According to Peattie (2001), the evolution of green marketing has three phases. First phase was termed as "Ecological" green marketing, and during this period all marketing activities were concerned to help environment problems and provide remedies for environmental problems. Second phase was "Environmental" green marketing and the focus shifted on clean technology that involved designing of innovative new products, which take care of pollution and waste issues. Third phase was "Sustainable" green marketing. It came into prominence in the late 1990s and early 2000s.

Now, the consumer has greater number of options for the same type of product and it's up to the consumer on what parameters and criteria the preference is given to the product. In order to analyze and evaluate the awareness level and the desire of the people to incorporate those values in their buying behavior and realizing the importance of environment and its sustainability and how collective action can prove effective in implementing ecological friendly practice, it is necessary that the general public needs to be interviewed to come to a conclusion that on what level they weigh the environment over other benefits and how ready they are to switch the product so that a threshold level can be determined so that the awareness can be spread evenly and uniformly.

OBJECTIVES

The following were the objectives of the study :

1. To examine the awareness level of the respondents concerning environment and the need to sustain it.
2. To analyze the acceptance of 3Rs : Recycle, Reduce, Reuse among the respondents.
3. To evaluate the decision factors affecting buying behaviour vis-a-vis ecological concerns and what thrives them to switch the product.

METHODOLOGY

The study sample covered Chandigarh, Panchkula and Patiala region with 106 respondents. User-centred research techniques and a questionnaire were used to capture the psychology of balanced demographic profile of respondents and to explore the probability of various variables acting as predictor for ecological behaviour and to solve environmental problems.

The Questionnaire focussed on the following Individual determinants and environmental influences in relation to the ecological behaviour and sustainability that affect consumer behaviour.

Individual Determinants

- Personal motivation and involvement -Perception -Attitudes
- Learning and memory -Self-concept and personality
- Decision making.

External Environment

- Family — Social Group — Reference Groups — Social Class
- Culture — Sub-culture — Cross-culture
- National and regional influences

FINDINGS

40% of the respondents with income Rs 2-4 lacs per annum stated that they switch off the lights while going out of the room. Only 1% person with income Rs 1-4 lacs may not be switching off lights while going out of the room. This indicates that the importance of power and its conservation is well understood by the respondents. The males and females are equally aware of this fact that power needs to be conserved whenever it's possible.

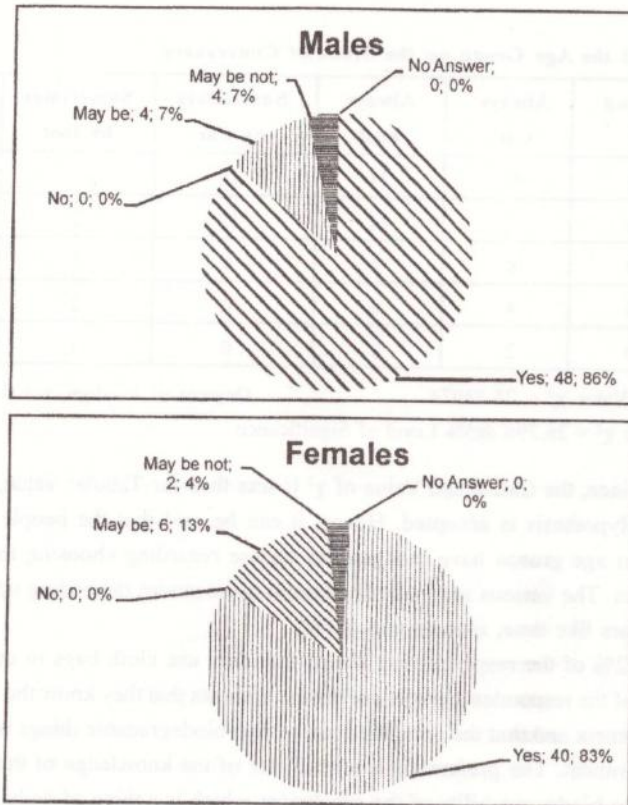


Fig. 3 : Response for Switching off Lights when going out of the Room.

16% persons which lie in age group 20-40 years always use car to go to a nearby place. 24% of the females prefer to go on foot. 11% people in the age group 21-30 years always go on foot. Only 1% of the people having income Rs 5 lacs and above always prefers to walk to the nearby place.

H_{01} : There is no association between the age group and the mode of conveyance chosen.

Table 1
Response of the Age Group on the Mode of Conveyance.

| Age group | Always Car | Always Foot | Sometimes by Car | Sometimes by foot | Never |
|-----------|------------|-------------|------------------|-------------------|-------|
| 21-30 | 9 | 11 | 18 | 7 | 0 |
| 31-40 | 7 | 11 | 12 | 2 | 2 |
| 41-50 | 8 | 2 | 4 | 2 | 0 |
| 51-60 | 4 | 0 | 0 | 2 | 0 |
| 61-70 | 2 | 0 | 0 | 1 | 0 |

Calculated Value $\chi^2 = 25.53974$

Degrees of freedom, $\nu = 16$

Table Value $\chi^2 = 26.296$ @5% Level of Significance

Since, the Calculated Value of χ^2 is less than the Tabular Value, therefore, the Null Hypothesis is accepted. Hence, it can be said that the people belonging to different age groups have independent choice regarding choosing the mode of conveyance. The various sections may choose these modes depending upon various other factors like time, income and culture.

42% of the respondents claimed that they use cloth bags to carry things. Only 2% of the respondents prefer polythene. It shows that they know the importance of environment and that the continued use of non-biodegradable things will degrade the environment. The preference is a predictor of the knowledge of the customers towards the biodegradability of the substances which is a thing of daily use in their life.

Another confirmation or evidence in this regards is as follows. 80% of the respondents agree that non-biodegradable waste is extremely harmful for the environment. 10% people falling the youth bracket i.e. 21-40 years are however neutral in their response. 16% people disagree in which 12% are males and only 4% are females.

8% of the males lying in income bracket Rs 5 lacs and above never use recycled paper. 14% females frequently use recycled paper however only 4% males do so. 31% respondents in the income bracket Rs 4-6 lacs per annum agree. 17% of the persons lying in the income bracket more than Rs 5 lacs per annum always prefer wooden furniture. 2% of the females never prefer wooden furniture. This shows that people are sensitive towards environment. Organizations need to promote this behaviour by switching to the wooden furniture wherever possible and perform their social responsibility towards environment.

Now coming to the most important factor which encourages people to

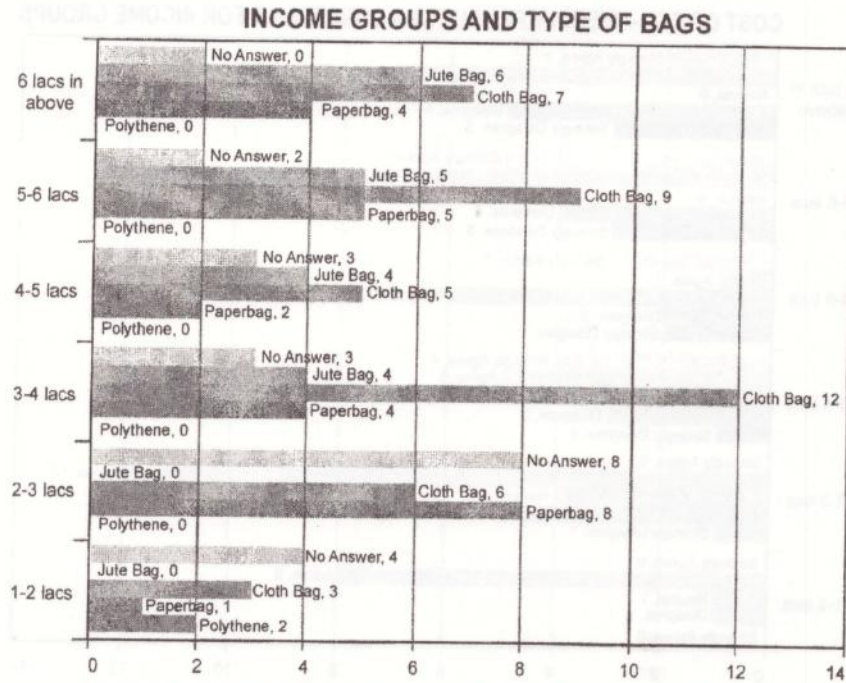


Fig. 4 : Preference of Various Income Groups for Carrying Things

make a choice or govern the choice of the product by the people. The cost of any product is a major constraint while going to opt the same. 44% of the respondents agree that cost of eco-friendly products is a major constraint out of which 41% respondents belong to the youth that is age group 21-40 years. Organizations need to focus on various methods possible for the reduction in the cost of the eco-friendly products and market them by different approach and ne methods so as to keep the cost in the reach of the common man.

58% of the respondents would not consider using recycled garments/products, even if it's double the cost of new one if given an opportunity, 33% of the respondents in the income bracket Rs 2-4 lacs per annum forms the majority in them. This clearly indicates that still the sensitiveness or awareness can be easily overtaken by the financial factors. The less privileged are the majority among them. The other important aspect of environment conservation rests on the acceptability of the people towards the techniques like Reduce and Reuse which have proved beneficial for conserving environment. As social acceptability for these techniques is far necessary than any other factor to ensure their use in the masses on a large scale, it is essential to spread awareness. 78% on the whole and 28% of the people

COST OF ECO-FRIENDLY PRODUCTS A CONSTRAINT FOR INCOME GROUPS

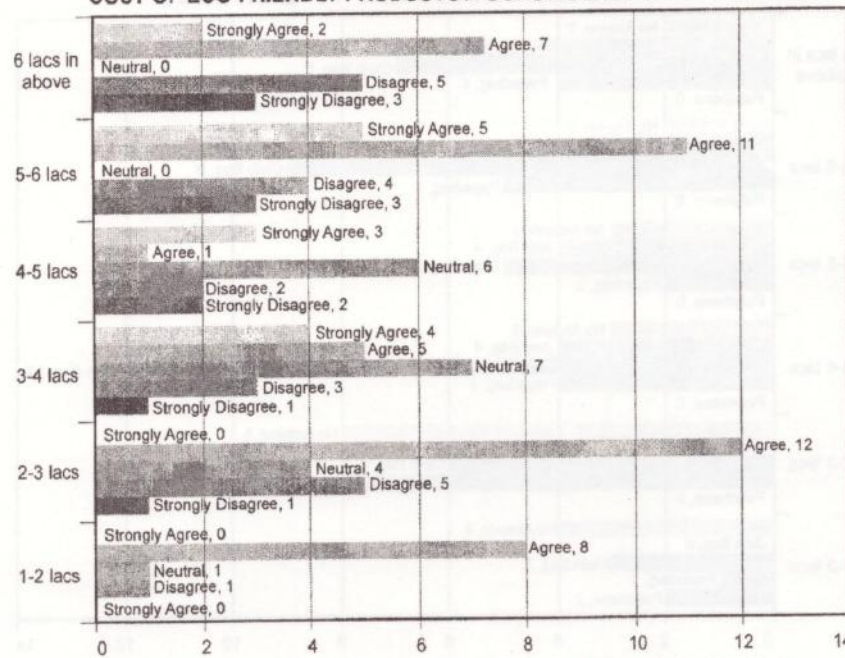


Fig. 5 : Various Income Groups Constraining the Cost of the Product.

in the in the income bracket Rs 1-3 lacs per annum agree that the techniques like reduce and reuse prove beneficial in conserving environment. The exact number and kinds of responses furnished by the respondents has been shown in the Table 2 below.

Table 2
Age Groups' Response to Reduce and Reuse in Conserving Environment

| Age group | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|-----------|-------------------|----------|---------|-------|----------------|
| 21-30 | 0 | 2 | 5 | 35 | 3 |
| 31-40 | 2 | 0 | 7 | 23 | 4 |
| 41-50 | 0 | 0 | 9 | 5 | 2 |
| 51-60 | 0 | 0 | 3 | 1 | 2 |
| 61-70 | 0 | 0 | 0 | 0 | 3 |

78% of the respondents agree that auto rickshaws are major source of air pollution in urban areas. 20% females always get their vehicle's emission levels checked regularly while the same for males is only 8%. 25% of the youth i.e. 21-40 years get the emission levels of their vehicles checked.

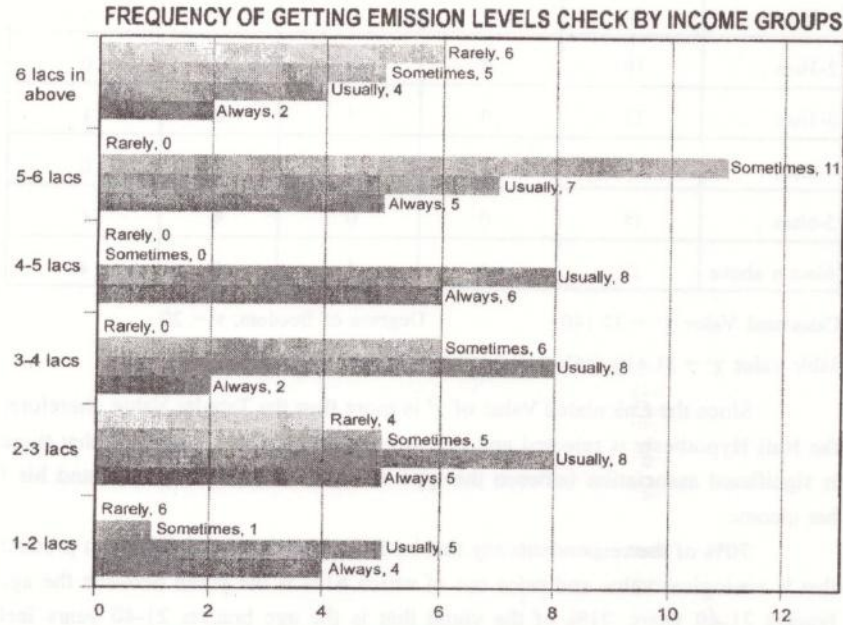


Fig. 6 : Frequency of Emission Levels checked by Various Income Groups.

84% of the people are ready to switch on green vehicles if govt. gives subsidy on them out of which 36% are females are 48% are males. The green vehicles are sustainable solution but their cost is a major limiting factor for the consumers. It suggests that people are eager to accept the change if it's for good but limited sources restricts them.

76% people prefer CFL than the ordinary filament bulb witnessing the sensitivity towards environment and its conservation. Out of 18% respondents using both CFL and ordinary filament bulb 12% are males and 6% are females evident that females have more knack towards energy conservation.

H_{02} : There is no association between the type of bulbs used and the income of the person.

Table 3
Response to Type of Bulb Used by Various Income Groups

| Income | CFL | Filament | Both | Any | No Answer |
|---------------|-----|----------|------|-----|-----------|
| 1-2lacs | 8 | 0 | 2 | 0 | 0 |
| 2-3lacs | 16 | 0 | 6 | 0 | 0 |
| 3-4lacs | 13 | 0 | 4 | 2 | 1 |
| 4-5lacs | 9 | 0 | 5 | 0 | 0 |
| 5-6lacs | 18 | 0 | 0 | 4 | 1 |
| 6lacs n above | 12 | 0 | 1 | 0 | 4 |

Calculated Value $\chi^2 = 32.140$ Degrees of freedom, $v = 20$

Table Value $\chi^2 = 31.410$ @5% Level of Significance

Since the Calculated Value of χ^2 is more than the Tabular Value, therefore, the Null Hypothesis is rejected and the alternate hypothesis is accepted that there is significant association between the type of bulb chosen by a person and his / her income.

70% of the respondents say that both attributes values for them in product that is ecological value and price out of which 61% is the youth between the age bracket 21-40 years. 21% of the youth that is the age bracket 21-40 years feel legislation has more contribution in change and 22% favours media for that. 12% of the male feel that both the forces have equal contribution in change while the same figure goes to 28% for females.

H₀₃ : There is no association between media and legislation for introducing change.

Table 4
Response of Income Groups Towards Factor for Social Change

| Income | Media | Legislation | Neutral | Both | None |
|---------------|-------|-------------|---------|------|------|
| 1-2lacs | 2 | 5 | 3 | 0 | 0 |
| 2-3lacs | 4 | 7 | 2 | 9 | 0 |
| 3-4lacs | 6 | 4 | 3 | 7 | 0 |
| 4-5lacs | 7 | 5 | 0 | 2 | 0 |
| 5-6lacs | 5 | 6 | 0 | 12 | 0 |
| 6lacs n above | 4 | 3 | 0 | 10 | 0 |

Calculated Value $\chi^2 = 28.732$ Degrees of freedom, $\nu = 20$

Table Value $\chi^2 = 31.410$ @5% Level of Significance

Since the Calculated Value of χ^2 is less than the Tabular Value, therefore, the Null Hypothesis is accepted. Therefore it can be claimed that there is no association between media and legislation for introducing change. There is no dependence of media on legislation or vice-versa.

23% youth claims that they usually buy green products & 35% of the respondents sometimes buy green products. This proves that there are segments which still exist and have a concern for the environment and they can spend to get satisfaction that they are behaving like green citizens and have fulfilled their duty towards the planet and mankind.

SUGGESTIONS / RECOMMENDATIONS

The fact that many companies put so much emphasis on marketing highlights how important they believe the issue to be. Green marketing is something new in India and has a potential to turn the tide in favour of environment. So organizations should adopt measures themselves first and then market themselves as green and ask the general public so as to fill the attitude intention gap.

Marketing for many companies is an integral part of their business model and sometimes they develop the product by conducting a market research that what features in the product consumer wants and devote significant resources to find out which segment of customers are buying their products and services, whether they are happy with what they buy and what is making them buy or not buy. Consumers should preferably give feedback to the companies to be environment

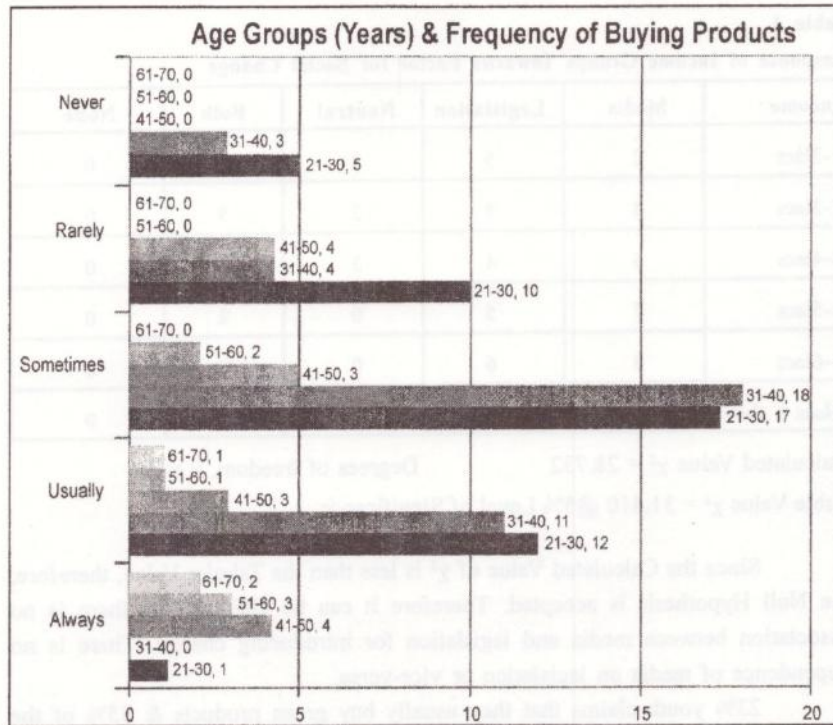


Fig. 7 : Age Groups (years) & Frequency of Buying Products

friendly in manufacturing, packaging, launching and promoting environment friendly products.

The internet and the rise of the digital world have further enhanced the saying "The consumer is King" as consumers have access to a wealth of information to help them with the purchase of goods and services. The social networks have their contribution in spreading information and complicated consumer behaviour by giving the consumer more power to choose.

Social marketing is a powerful tool for achieving a tangible and measurable impact on behaviours and should be exploited more to reach general public as it is a consumer-focused approach empowering citizens and not persuading them to change by preaching to them. Social marketing is also concerned with achieving tangible and measurable behavioural goals. Social marketing principles can be used to develop effective behavioural interventions to promote sustainable behaviour i.e. recycling, reduce and re-use (environment)

CONCLUSIONS

Consumer behaviour is complex and very often considered limited rational. A further challenge is the consumers perceptions, attitudes and intentions differ across inter region and intra-region. The vulnerable consumer, who does not always have access to the same number of choices as the average consumer and forms a substantial part of population, also needs to be taken into account. Understanding these differences and how they will impact on a policy intervention is the key to success in implementing the strategy on a big level.

There is a need to make consumers conscious about ecological products and sustainability. Moreover, this digital age requires keeping up with new trends like the social media. The Internet has become the first medium to allow for complex interaction between networks of people via social networks like Twitter, Facebook and YouTube, amongst many more. Influencing consumer behaviour is in fact about targeting the right people with the right message and motivate them to spread the message or even convince people who have different opinion through the interactions leading to a collective effort.

Last but not least the government can make legislations regarding environment protection through citizens and spreading awareness regarding sustainability to the lower working class who do not have knowledge about it and corporate can initiate launching environmental friendly practices like green power and energy focusing on the environmental aspect of corporate social responsibility.

AGENDA FOR FUTURE RESEARCH

There is a huge potential for policymakers to fully understand how consumers are spending their time online, especially as it seems that Internet users are increasingly using the medium as a way to improve their lifestyles and their buying behaviour too. Further research can be pursued to detect what influences peoples' behaviour to reduce the impact of consumption, overuse and wastage on the environment.

Furthermore, future work can be carried out, regarding furthering the investigation on how to bridge the considerable intention - behaviour gap between environmental values and consumer everyday action and how eco-friendly properties of a product can be improved through sustainable product design.

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