A Means-End Approach to Understand the Role of Values as Motivations of Sustainable Consumption Behaviour

Abstract: With recent increased interest in understanding sustainable consumption behaviour of people, there is need to explore the value motives behind sustainable buying behaviour of consumers. Using means-end approach, an investigation of the relationship between personal values and the decision to buy sustainable product 'Reva' was assessed in order to determine values that are more likely to influence sustainable consumption behaviour in India. Data was collected using a semi-qualitative laddering approach. Analysis of data showed that sustainable consumption behaviour is related not only to the environment values such as 'care for nature' but also to values such as 'respecting others', 'inner harmony', 'paying back nature's debt' and 'happiness'. Implications to mangers, policy makers and limitation of the study have been discussed.

Keywords: Sustainable Consumption Behaviour, Laddering, Means End Theory, Hierarchical values map, Personal Values

Consumption behaviour is difficult to understand and explain. Sustainable consumption is a more complex phenomenon. Many efforts in the past have yielded ambivalent outcomes (e.g. Stern, 2000; Vlek and Steg, 2007). Many researchers have proposed values as influencers of sustainable behaviours (e.g. Thogersen and Olander, 2002; Grunert and Juhl, 1995; Sener and Hazer, 2008). Some others have stressed a need for social and institutional actions that may assist the progress of environment friendly behaviours among consumers (Thogerson and Olander, 2002). Do consumers adopt sustainable consumption behaviour more because of intrinsic motivation? Do they do it more because of social desirability or both? Extant literature is ambiguous in answering these questions.

According to Zukin and Maguir (2004), consumption is a social, cultural and economic process of choosing goods, a project of forming and expressing identity and an important means of marking social status in any society. Holbrook and Hirschman, (1982) did a study to show that the experiential processes that focus on symbolic, hedonic and esthetical nature of buying behaviour are important components of consumption. The consumption experience as a phenomenon is directed towards fulfilling needs and towards pursuit of happiness, fantasies and fun. The purpose of consumption is likely to differ in different cultures. Every culture has some unique beliefs, values and practices and each value is defined differently, thus implying varied consumption behaviour in different cultures. Thus, consumption behaviour is likely to be influenced by specific values and beliefs of individuals. Values are often used as criteria to select and justify actions (Schwartz and Bardi, 2001; Dibley and Baker, 2001).

This paper assessed the relationship between values and sustainable consumption behaviour of Indians by conducting personal interviews. The objective was to capture the values of consumers who had actually shown an instance of sustainable consumption behaviour. This was to check if in addition to the environmental domain related values such as "care for nature" or "saving natural resources", a different set of values are also instrumental in impacting consumers' choice of sustainable consumption.

Sustainable Consumption

Sustainable consumption term is attached by researchers to the 27 principles of Rio Summit of the UN Conference on Environment and Development in 1992 where one of the principles demanded reduction in unsustainable patterns of production and consumption (e.g. Banbury, Stinerock and Subrahmanyan, 2012). Since 1992, the term sustainable consumption has been explored numerous times in literature, but literature has not settled on a single view of sustainable consumption. Some researchers view it as an act of voluntary simplicity or anti-

consumption act (Shaw and Moraes, 2009; Black, 2010); others define it as the adoption of green lifestyle practices (e.g. Gilg, Barr and Ford, 2005). The Oslo symposium on sustainable consumption, 1994 defined it as "the use of goods and services that respond to basic needs and bring a better quality of life, while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardize the needs of future generations.[1]"

Thus sustainable consumption involves a satisfaction of basic needs, without compromising the Earth's carrying capacity and without putting the life of future generations at risk. Current consumption patterns across the world are specifically unsustainable they are causing adverse side effects, socially, environmentally and economically. Though, there could be numerous instances of sustainable consumption practices, here the focus is on environment and social impacts of households through their consumption choices. Changes in the consumer habits and buying behaviour are the examples of sustainable consumption if those actions reduce bad impact on environment and society. Such a focus will help in better evaluating and organizing household level initiatives to implement sustainable consumption.

The marketing of sustainable products and better implementation of sustainable consumption policies needs an understanding of the factors that facilitates or limits sustainable consumption. Sustainable consumption incorporates a broad range of consumption practices; the focus of this paper was an important form of consumption of an example of green technology product: electric car.

Values as influencers in Sustainable Consumption

Environmental objects are comparatively unfamiliar to individuals initially; therefore role of values in the formation of environmental attitudes is more important. In case of

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[1] Symposium: Sustainable Consumption. Oslo, Norway; 19-20 January 1994

environmental entities, people shall be involved in information seeking, information about threats to the environment, consequences of particular actions and therefore realization of the conflicts of those consequences with their beliefs. In such scenario, values may act both as amplifier for the information as well as filters for information (Stern and Dietz, 1994). Many researchers have identified the role of personal values as one of the most important factor to understand people's purchasing behaviour towards sustainable products (Doran, 2009; Krystallis, Vassalo, Chryssohoidis and Perrea, 2008).

It may be interesting to find what kind of value orientations are more likely to impact sustainable consumption behaviour. Stern and Dietz (1994) identified three kinds of value orientations: egoistic, social altruistic and biospheric as the bases for environmentalism. In their research they proposed that though biospheric values reflect a concern for the environment and the consumption of eco-friendly products in general, other values that can be categorized into either egoistic or social altruistic may also influence sustainable purchase choice of consumers. Likewise, in Karp (1996) found that values oriented towards other's welfare positively influence environmental behaviour while values oriented towards self interest negatively influence environmental behaviour.

Research Design

The aim was to design an appropriate data collection methodology for this study. Values of the respondents was captured using personal interviews, by understanding how they translate their perception about attributes of Reva into fulfilling their personal values. The use of 'interviews' approach was justified because the underlying motivations behind a consumption behaviour displayed by people are sometimes difficult to measure using questionnaires. Reynolds (1985) proposed that the macro approach of questionnaire survey, grounded in sociology and survey research methodology though shows strong face validity, fails to explain the process of how different aspects of a product gets related to the

personally relevant roles of that product for a consumer. According to Reynolds and Gutman (1988), macro survey approach misses out on getting information about the key components of product positioning strategy that are obtained by linking the product with a consumer's personal values.

Reynolds (1985) describes another 'micro' research approach based upon Means-End Theory (Gutman, 1982) that uses a standard in-depth probing methodology known as "laddering" (Gutman and Reynolds, 1979) to find the associations between the product attributes important to a consumer, and the consequences that result after the consumer uses that product, and the personal values. Means End theory has been explained in the next section.

Means End Theory and Laddering Technique

Means End Theory identifies the values that specify why particular consequences related to product attributes are important to a consumer (Gutman, 1982). Consumers selectively attend to and learn which product/service attributes foster the experience of desired consequences (or minimize/avoid undesired consequences), which in turn help them achieve desired end states (Overby, Woodruff and Gardial, 2005). Vriens and Hofstede (2000) explain the mean-end theory in the following words:

"Attributes gain their relevance because they allow the consumer to achieve certain benefits (e.g., reliability or health). A benefit in turn becomes important because the consumer has a higher need for the benefit (i.e., they are related to higher-order personal values such as happiness, security, sense-of-belonging, and achievement)".

Laddering is a frequently used interview based research method for exploring means-end chains. In laddering, using a tailored interviewing format characterized by a series of probing questions exemplified as "why is that important to you" question, means-end association

ladders representing set of linkages between key perceptual elements across the range of Attributes, Consequences and Values are formed (Gutman and Reynolds, 1979). Laddering technique consists of a three step procedure: elicitation of salient attributes, in- depth interview and analysis of results (Gutman, 1982). After the interviews are conducted and transcribed, analysis of data involves the following steps (Reynolds and Gutman, 1988):

- Summarizing the key perceptual elements for each of hierarchical variables, attributes, consequences and values using standard content analysis procedures.

- Construction of the summary table recapitulating the number of connections between the identified elements

- Graphical representation of the dominant linkage ladders (attribute-consequence-value) in a tree diagram called hierarchical value map.

It has been discussed that sustainable consumption and consumer psychology are closely associated. Even in sustainability domain, one of the key reasons why consumers decide to buy a particular product, are their internal aspirations. Consequently, to examine the underlying psychographic factor "values", related to the choice of electric car "Reva", identifying consumer's interpretation of positive and negative attributes of the car was considered to be significant. Since means-end chain process reveals the personal values, incidental in the liking/disliking of product characteristics, the use of means-end method seems appropriate, with values as the 'end' and attributes of Reva as "means". The theory has been used by researchers for products in distinctive contexts successfully e.g. illustrated by Grunert and Grunert (1995); Zanoli and Naspetti (2002).

Data and Methods

Of the two, "hard" and "soft" laddering approaches (Grunert and Grunert, 1995) to collect data, "soft" approach was used in this research. "Hard" laddering approach doesn't use

personal interviews as a method of data collection and data is generally collected using self-administered questionnaires (Grunert and Grunert, 1995). In hard laddering, respondent is forced to give answers in a way that will lead to the production of ladders. In "soft" laddering approach, data is collected by conducting personal interviews. According to Grunert and Grunert (1995), soft approach must be preferred when there is a likelihood of problems arising due to weak or elaborate cognitive structures of respondents. Further, it is advisable to use "soft" laddering when the respondents are particularly more experienced and involved with the product (Grunert and Grunert, 1995). Buying and usage of an electric car is a high involvement exercise and owners are quite knowledgeable about their car's attributes.

According to Grunert and Grunert (1995), there exist two views about the use and application of laddering data collection in understanding consumption process: motivational and cognitive structure view. Since the aim of the study was to form hierarchical models by linking cognitive categories corresponding to attributes of an electric car with cognitive categories related to the realization of "values", the view that laddering aim at measuring consumers' cognitive structures was adopted. In order to achieve higher predictive validity of the data, four criteria recommended by Grunert and Grunert (1995) were thoroughly fulfilled and used as references while conducting the interviews. Still sometimes there arose many tricky situations in the interviews. For instance, during interviews, many a times, respondents didn't have immediate answers, probably because they were either cognitively quite weak or somewhat confused with the question asked. Similarly a few times, respondents tended to drift from probing scenario to a problem solving process. To minimize violation of the standard process, many measures were taken during the interview such as stopping the line of questioning and changing it into new associations or instead of asking

only "Why is that important", changing the question in a way that avoided interruptions in the natural flow of responses.

Sample

It was believed that the number of respondents would be decided on the basis of the responses received from new respondents. After about 15 interviews, the kinds of ladders made out of responses were getting repeated. Even more probing with subsequent respondents was particularly adding only marginal value. Hence a sample of 20 respondents was finally used for further analysis to meet atleast the minimum sample size suggested by Reynolds and Olson (2001). The principal researcher conducted all the interviews.

Initiating the interview

Before starting any interview, respondents were explained about the whole purpose of the interview. He/she was told that the major purpose of the interview was to understand their views about Reva and its usage. The respondent was regarded as an expert and the interviewer was positioned as a mere facilitator of the interview. Additionally, before starting the probing section of the interview, few classificatory questions were asked at the start of the interview to put the respondent in a comfortable position. If the respondent was found to be a little uncomfortable (happened a few times), then certain questions were added before beginning the probing process, for which the answers were supposed to be quite obvious and easy. *To infuse confidence in the respondent which is important for a better response, it is important to establish a rapport with the respondent before initializing the actual in-depth probing* (Reynolds and Gutman, 1988).

There were equal numbers of male and female respondents. 55% of the respondents were of age group 35-44 (see Table 1); 95% of them were married. As expected, 65% of the respondents reported a monthly income of more than Rs. 1, 00,000. This finding suggested

that buyers of an electric car in a developing country like India come from upper- middle socio-economic groups. About 35 % of the respondents were having their own business and another 25 % were working as managers in private companies. When asked later about Reva usage, most of these respondents stated that Reva is driven only within city and average weekly usage was about 200-250 Kms. For that reason, businessmen who had to visit either their customers or their suppliers preferred to use Reva, though usually it was not the first car in the family. Only 10% of the respondents had only Reva as the car at disposal. Accordingly, 90% of them had atleast one more car at home (see Table 1).

Interestingly, Reva owners emerged to be risk takers; 75% of them showed a medium to high preference for risk seeking behaviour. Risk seeking behaviour was captured by adjusting the utility function of respondents by hypothetically situating them in a lottery with different possible outcomes. People had to choose between probabilistic alternatives that involve risk of losing money too. The decision, people made based on potential importance of losses and gains at two different levels determined their risk seeking ability.

(Table 1 here)

At the next step, respondents were asked questions about their experience of possessing Reva. Beginning with questions such as "When did they buy Reva first time?", "How did they make a decision to buy it?", "Who is the most prominent user of Reva in family?" etc, respondents were eventually asked: "*Try to pick three important attributes or features that Reva possess, that convinced them to buy it or which they would use as reference while recommending someone to buy Reva*". Responses to this question helped in generating a wide range of people's preferences in relation to Reva buying.

After respondents elicited three important attributes, they had to answer why the first attribute they had identified, was important to them. This question was further followed by a

series of 'why' questions, till a ladder was completed. After the conclusion of first ladder, same process was repeated for second and third attributes.

Respondents were also encouraged to report some negative attributes of Reva and the reasons for negative perception about those attributes. Ladders were constructed for negative attributes in a similar manner.

After the discussion on Reva, respondents were asked to report their other instances of environment friendly behaviours in family such as how often they segregate waste at home or how often do they turn off electric bulbs and water taps when not in use and the energy star rating of the electronic products they possess. Further they were asked if there was any environment friendly behaviour they want to adopt in near future and why. The interview was closed with the following question: "For which personal values in life, they have never compromised and would never compromise in future?"

Thus, firstly creating a sense of involvement and good repo in the interview, then successfully constructing A-C-V ladders, the researcher was able to extract more fundamental reasons, hidden below the obvious explanations and rationalizations behind the respondents' perceptions and buying behaviour. Finally, a few additional questions on their personal values and their indulgence in other environment friendly behaviours enabled valuable insights on the nature of values influencing the purchase of an environment friendly product.

Analysis of laddering data and Results

After the interviews were conducted, laddering data was analyzed using three major steps as suggested by Reynolds and Gutman (1988) and Gengler and Reynolds (1995). Firstly, individual ladders for each respondent, consisting of attitudes, consequences and values were

constructed by classifying the raw data, forming meaningful portions (Gengler & Reynolds 1995). This was done manually without the usage of any software.

Next, the meaningful ladders were content analyzed across subjects to develop generalized meaningful categories based on key words obtained from the comprehensive number of ladders. The coding procedure was iterative and time consuming. Initially a single expert examined all the ladder content and combined and redefined categories to obtain a list of concepts for each of three variables. The number of concepts was initially 60. Subsequently a second expert with experience in consumer research and in laddering, did a cross check to make categories clear and distinct, resulting in reduction in categories to 43 (see tables 2, 3 and 4) which is a manageable number as per Gengler & Reynolds (1995).

Finally, using the categories in three variables, the aggregate map called the hierarchical value map (HVM) was created that displayed dominant categories of attributes, consequences and values (Figure 1). Literature suggests that only the most dominant and meaningful maps should be represented in HVM; and recommends using cut off points for each of the three variables: Attributes, Consequences and Values (e.g. Gengler and Reynolds, 1995; Gengler, Klenosky & Mulvey, 1995). Subsequently, a cut-off value of 4 was be specified for A, C and V. As a result, Hierarchical value map contained 7 attributes, 10 consequences and 17 values (Figure 1).

Though the purpose of the research was to concentrate mainly on environmental friendly attributes, attributes also included many generic attributes of Reva such as cost, maintenance, service quality, mileage etc. The range of important attributes showed that consumers who bought Reva based their choice not just on environmental attributes but also on many other product attributes. Nevertheless, eco-friendly feature of Reva is one of the important trigger point for people (as it was mentioned 18 times as important attribute by respondents) to

make their purchase decision, the role of some of other features such as comfortableness, low cost of operation and maintenance was also influencing consumer decision.

Next step of HVM ladder was 'Consequences', where the retained categories exposed a wide variety of benefits and risks attached with Reva usage. Respondents wanted to live a 'green lifestyle', 'avoiding pollution' and save exhaustible resources by indulging in eco-friendly behaviour. Further these respondents also showed importance of time, money and comfort in their life.

(Table 2 here)

(Table 3 here)

(Table 4 here)

(Figure 1 here)

Values form the third level of HVM ladders. It was noticed in the map that people, for whom environment friendly attribute and corresponding consequences were important, identified 9 different values at the end of the ladder. This strengthened the discussion on the crucial role of personal values as drivers of sustainable consumption behaviour. Two values directly implied a caring attitude towards nature. Other values, not directly centered at environment saving attribute, also found driving a feel for environment safety among respondents. The major findings explaining the ladders connecting attributes and values are as follows:

(1) Values such as "No Injury to others", "Respecting everyone's wellbeing", emerged as values linked to environment friendly behaviour. Respondents found that harmful emission from petrol and diesel cars as the major pollutants of environment also affects the health of people. By using a car that doesn't pollute the environment, indirectly people linked this to the well being of other people. This ladder was clearly driven by people's values oriented towards others.

(2) Another important value linked to saving environment was "paying back nature's debt". Some respondents felt that they are indebted to their local environment. By living a green lifestyle and not adding to the already abundant pollution, they felt that a part of their debt is paid off.

(3) Similarly people seek inner peace, satisfaction by using an eco-friendly car. The attributes "no emission", "no noise" and no use of "exhaustible resources" were strongly linked to the consequences of "Sustainenace in the world" and "saving exhaustible resources", which eventually helped people to remain "guilt free", further providing them a sense of inner satisfaction and peace. Indulging in these actions ultimately generates "happiness" within.

(4) "Sacrifice for the family" and "Careful spending" surfaced as values intrinsically related to the feature "low operating and maintenance costs". The reason given was that the use of electricity as the fuel and minimal maintenance involved helps them in saving money. The saved money could be invested in the welfare of their family, particularly their children. These discussions usually ended with an explanation that they need to forfeit their own interests for their children.

(5) For a few attributes such as "driving experience", "service quality", there were straight forward patterns formed ending at values "comfort" and "responsiveness"

respectively. People wanted good driving experience because they wanted to be comfortable while driving in tough traffic times. Similarly, they expected good service quality from the company.

(6) Finally importance of "safety features", "automatic car feature" was linked to the consequences "prevention of accidents" and "easy to manoeuvre". People wanted to be safe while driving a car. Eventually the value that they seek from these attributes was the "security and safety of their family". A person felt that if his/her family person is driving Reva, he/she was safe.

It can be noted from the dominant patterns in HVM that the values found to be important in encouraging people to buy Reva are of two categories: one that are oriented towards others such as 'non-injury', 'others' well being', 'sacrifice for family', 'security of the family' and 'paying back debt' and the values that are oriented towards self such as 'inner peace', 'inner satisfaction', 'Guilt free life' and 'being healthy'. It is also interesting to know that wide range of values impact sustainable consumption behaviour and many of these are different from the values identified in literature such as "care for nature" or "saving exhaustible resources".

As mentioned earlier, respondents were also asked additional questions before closing the interview where they talked about their indulgence in other sustainable consumption behaviours at home and about their key personal values. The summary of the responses to these two questions is presented below:

(1) Though the responses to the question on eco-friendly behaviours didn't follow a pattern but there were certain behaviours that were reported to have high indulgence by most of the respondents. These behaviours included taking own shopping bags along, CFL's at

home and waste segregation. It was interesting to find that about 60 % of the respondents were also involved in waste composting, solar water heating and using of recycled products. Out of applicable cases, about 25 % of respondents were also harvesting rain water. Many of them reported that Reva usage triggered in them, an interest to use more eco-friendly products or adopting environment friendly habits in life. Cases that showed more involvement in eco-friendly behaviours had their preference for environmental friendly attributes being ultimately motivated by concern about other people in the society and care for future generations.

(2) Respondents also directly reported their own personal values. These values were not only important for the respondents but they wanted to inculcate these values in their children too. Honesty and Integrity, reported by 12 respondents each, emerged as the most dominant values of the lot. A list of values and the number of times these were mentioned by the respondents is provided in the Table 5. Only those values have been included which were mentioned important by atleast 4 people.

(Table 5 here)

Discussion and Implications of this study

This paper suggests that marketing research need to acknowledge that the connection between consumption behaviour and personal values is likely to differ in different cultures. With the changing nature of consumption pattern due to increased options, it is not enough to generalize the relationship between these two variables across cultures. Some values can be identified as universal and always impact sustainable consumption behaviour. But, these behaviours are also influenced by certain values that are either oriented towards self or others. This set of values may be dynamic, having distinguished culture specific properties.

Changes in the nature of consumption practices are not visible despite social and political efforts. Rather than simply focusing on one aspect, there needs to be presentation of sustainable products and services as a cultural values artifact to the target consumers, in addition to putting an effort towards awareness, availability and incentivization of sustainable consumption practices. Identification of values representing a person as an eco-friendly individual is important to modify his/her consumption values. As Dolan (2002) states: *"it is vital to be aware of the present space of consumption as identity shaping. This is particularly important in light of the ethic of the self. The cultural desire to be "free" will not be served simply by regulatory frameworks seeking to structure consumer action."*

The laddering data results represented in the HVM contribute towards the body of knowledge by revealing the importance of several new values that are instrumental in the context of green buying behaviour in India. Analyzing the HVM and examining individual comments, it is possible to understand how specific attributes of products relate to the emotionally significant aspects and link further to personal values. As an implication of this study, it can be concluded that an emphasis towards targeting values of consumers that impact sustainable consumption is required to stimulate their personal responsibility and efficacy to act sustainably.

Limitations and Directions for further research

In this study, a sample of respondents who were involved in sustainable consumption behaviour, were interviewed to explore the personal values of consumers engaged in ethical buying behaviour. Since the target respondents were involved in buying the same product, the missing part was the flexibility in the product chosen as eco-friendly product. This also is an opportunity for future research where researchers can vary the eco-friendly products and check if the value structure influencing sustainable consumption behaviour remains same in different scenarios.

The final ladders in HVM presented multiple patterns of attributes-consequences-values relationship for different consumers. Therefore, a segmentation based approach can be used to investigate if there are sets of consumers that are clearly distinguishable on the basis of sustainable consumption behaviour. This will help marketers in selecting appropriate targeting strategies, oriented towards each segment of consumers.

References

Banbury, C., Stinerock, R., & Subrahmanyan, S. (2012), "Sustainable consumption: Introspecting across multiple lived cultures", *Journal of Business Research*, *65*(4), 497-503

Black, I. (2010),"Sustainability through anti-consumption", *Journal of Consumer Behaviour*, *9*(6), 403-411

Dolan, P. (2002). The sustainability of "sustainable consumption". *Journal of Macromarketing*, *22*(2), 170-181.

Doran, C.J. (2009), "The role of personal values in fair trade consumption", *Journal of Business Ethics,* 84(4), 549-563

Dibley, A. and Baker, S. (2001), "Uncovering the links between brand choice and personal values among young British and Spanish girls: A laddering study", *Journal of Consumer Behaviour*, v.1, p.77-93

Gengler, C. E., & Reynolds, T. J. (1995), "Consumer Understanding And Advertising Strategy: Analysis And Strategic Translation Of Laddering..." *Journal of Advertising Research*, Vol. 35(4), No.19-33

Gengler, C. E., Klenosky, D. B., & Mulvey, M. S. (1995), "Improving the graphic representation of means-end results", *International Journal of Research in Marketing*, Vol. 12(3), No. 245-256

Gilg, A., Barr, S., & Ford, N. (2005),"Green consumption or sustainable lifestyles? Identifying the sustainable consumer", *Futures*, *37*(6), 481-504

Grunert, K. G., & Grunert, S. C. (1995), "Measuring subjective meaning structures by the laddering method: Theoretical considerations and methodological problems", *International Journal of Research in Marketing*, Vol. 12, 209–225

Grunert, S. C., & Juhl, H. J. (1995),"Values, environmental attitudes, and buying of organic foods", *Journal of economic psychology*, *16*(1), 39-62

Gutman, J and Reynolds, T.J. (1979), "A n Investigation of the Levels of Cognitive Abstraction Utilized by Consumers in Product Differentiation," in Attitude Research Under the Sun, J. Eighmey, ed., Chicago: American Marketing Association, pp.128-50

Gutman, J. (1982), "A means-end chain model based on consumer categorization processes", *Journal of Marketing*, pp. 60-72

Holbrook, M.B. and Hirschman, E.C. (1982), "The experiential aspects of consumption: consumer fantasies, feelings and fun", *Journal of Consumer Research,* Vol. 9, pp. 132-140

Karp, D.G. (1996), "Values and their effect on pro-environmental behaviour", *Environment and Behavior*, Vol. 28, pp. 111-133

Krystallis, A., Vassallo, M., Chryssohoidis, G., & Perrea, T. (2008),"Societal and individualistic drivers as predictors of organic purchasing revealed through a portrait value questionnaire (PVQ)-based inventory", *Journal of Consumer Behaviour*, *7*(2), 164-187

Overby, J. W., Woodruff, R.B. and Gardial, S.F. (2005), "The Influence of Culture upon Consumers Desired Value Perceptions: A Research Agenda." *Marketing Theory,* **5**(2): 139-162

Reynolds, Thomas J (1985), "Implications for Value Research: A Micro vs. Macro Perspective." Psychology and Marketing 2, 4, 297-305

Reynolds, T.J. and Gutman, J. (1988), "Laddering theory, method, analysis and interpretation'', Journal of Advertising Research, Vol. 28 No. 1, pp. 11-31

Reynolds, T. J., & Olson, J. C. (Eds.) (2001), *Understanding consumer decision making: the means-end approach to marketing and advertising strategy*, Psychology Press

Schwartz, S. H., & Bardi, A. (2001), "Value hierarchies across cultures: Taking a similarities perspective", *Journal of Cross-Cultural Psychology, 32,* 268-290

Sener, A., & Hazer, O. (2008), "Values and sustainable consumption behavior of women: a Turkish sample", *Sustainable Development*, *16*(5), 291-300

Shaw, D., & Moraes, C. (2009), "Voluntary simplicity: an exploration of market interactions", *International Journal of Consumer Studies*, *33*(2), 215-223

Stern, P. C., & Dietz, T. (1994), "The value basis of environmental concern", *Journal of Social Issues*, *50*(3), 65-84

Stern, P. C. (2000), "Psychology and the science of human-environment interactions", *American psychologist*, *55*(5), 523

Thøgersen, J., & Ölander, F. (2002), "Human values and the emergence of a sustainable consumption pattern: A panel study", *Journal of Economic Psychology*, *23*(5), 605-630.

Vlek, C., & Steg, L. (2007), "Human Behavior and Environmental Sustainability: Problems, Driving Forces, and Research Topics", *Journal of social issues*, *63*(1), 1-19

Vriens, M., & Hofstede, F. T. (2000), "Linking attributes, benefits, and consumer values", *Marketing Research*, Vol. 12(3), pp. 5-10

Zanoli, R. and Naspetti, S. (2002), "Consumer motivations in the purchase of organic food: A means- end approach", *British Food Journal,* Vol. 104, No. 8, pp. 643-653

Zukin, S., & Maguire, J. S. (2004), "Consumers and consumption", *Annual Review of Sociology*, 173-197

Table 1: Sociodemographic characteristics of the sample

Total = 20 respondents

Category	Value	N		Category	Value	N		Category	Value	N		Category	Value	N
Gender	Male	10		**Education**	Under-Grad			**Born:** a=Rural b= Sub Urban c= Urban d=Metro	a	1		**Reva usage (a week)**	0-50 Kms	2
	Female	10			Graduate	6			b	3			50-100 Kms	2
Age	20-24	0			**Post-Grad**	**10**			**c**	**9**			100-150 Kms	1
	25-34	3			Doctorate	4			d	7			150-200 Kms	3
	35-44	**11**		**Household Income (monthly)**	Up to 10,000	0		**Risk Taking**	**Highly Risk Seeker**	**7**			**200-250 Kms**	**4**
	45-54	3			10,001-20,000	1			**Risk Seeker**	**8**			250-300 Kms	3
	55-64	2			20,001-50,000	2			Neutral	0			**300-350 Kms**	**4**
	64 and Above	1			50,000-1,00,000	4			Risk Averse	3			>350 Kms	1
Profession	Engineer	2			**Above 1,00,000**	**13**			Highly Risk Averse	2		**Bought since (years)**	1	2
	Doctor	2		**Marital Status**	**Married**	**19**		**Number of other cars at home**	0	2			2	3
	Lawyer				Single	1			**1**	**14**			3	4
	Own Business	**7**		**Have Children**	**Yes**	**17**			2	3			**4**	**5**
	Student	0			No	3			3	1			5	2
	Teacher	3							4	0			More than 5	4
	Housewife	1												
	Retired	1												
	Manager	5												

Table 2: Table of all attributes

Name of Attribute	Number of times mentioned	Characteristics
Environment Friendly ➢ No Emission ➢ No Noise ➢ No use of exhaustible resources	18	It doesn't emit harmful gases; neither it uses petrol or diesel. It also is a very calm car on road.
Comfortable Features ➢ Automatic, ➢ Small ➢ Compact ➢ Driving Experience	18	It is small, compact and automatic, so gives a wonderful driving experience even in traffic. I would any day prefer a small car Reva to an SUV
Low running Cost ➢ Electricity as cheaper fuel	11	It runs on electricity and the cost of electricity is negligible as against petrol or diesel costs.
Low Maintenance	4	Maintenance of Reva is not only cheap, but also least time consuming
Low Mileage	4	Mileage per charge is hardly 50-60 Kms
Service Quality	2+ (-2)	Present quality of Reva services is not as good as it used to be. Quality of service staff is awesome.
High Pick up	3	Everyone who travels with me gets surprised after seeing the pick-up of the car, it quickly zooms away
No waiting at petrol pumps	2	The fuel used in Reva is electricity, no need to stop at petrol pumps
Safety Features ➢ Strong Body ➢ Highest speed limit low	1+ (-1)	It's small and compact; still its body is very strong as compared to other small cars. I'm not sure about the strength of the body
Uncomfortable Features	2	The space available almost packs in the car, plus there are no shock absorbers. A.C is also not noise-free

Table 3: Table of all consequences

Name of Consequence	Number of times mentioned	Characteristics
Avoid Pollution	16	People want to help the environment and reduce harmful emissions
Saving Money, Value for money	13	People want to save money on Petrol and Diesel. Good returns of the money they invest in Reva
Easy to handle; easy to drive in city traffic;	9	People want a hassle-free drive when driving in annoying traffic
Convenience, Comfort	7	People want to travel conveniently, without stress.
Saving Time	7	People can't afford to spend too much time in travel
Easy to Manoeuvre	6	People want to control the car better, again particularly in heavy traffic
Satisfaction-Dissatisfaction	4	People feel either satisfied or dissatisfied depending on service quality of the staff
Charge Battery Everyday	4	People feel a sense of duty and urgency about charging car battery everyday
Green Lifestyle	4	People want to sustain a healthy and green life
Saving Exhaustible Resources	4	People don't want to be involved in exploiting exhaustible resources
Prevent Accidents	4	People feel safe in Reva as its maximum speed limit is not more than 60 Kms per hour
Zooms Away	3	People finds the car small and compact; it quickly zooms away without worrying about gears
Plan before you leave	3	Another obligation is the planning the day's travel because of low mileage
Sustainenace in World	2	People want to encourage indiscriminate use of resources to help the world to sustain
Easy Parking	2	People find space for parking Reva easily

Table 4: Table of all values

| Name of Value	Number of times mentioned	Characteristics
Inner Harmony, Peace, Inner Satisfaction	11	People want to live in harmony with themselves
Safety and Security of the family and Self	10	People seek safety and security for themselves and their families.
Care for Nature	9	People feel a strong urge to save the nature.
Respecting everyone's well being	7	People care for others and wish everyone's wellbeing in a society
Comfort	7	People want to spend a comfortable life.
Paying back Nature's and Society's Debt, contributing to society	7	People strongly feel that they owe a lot to the Nature and the Society and believe in paying back that debt.
Value for time, Punctuality	7	People find their and other's time very valuable
Responsible, Fulfilling duty, Responsiveness	7	People see themselves as a responsible person.
Carefully spending	6	People believe in spending their money sensibly.
Child's Education and interests	5	People wish to provide their children best education and growth environment.
Feel Good, feel proud	5	People want to feel good about themselves
Happiness, Fun & Enjoyment	5	People want extract happiness from their deeds.
Sacrifice for family	4	People want to sacrifice their own happiness for the sake of their family
Guilt free	4	People want their actions to be justified to live a guilt free life
Non Injury to others	4	People don't want to indulge in acts that harm others including environment
Healthy	3	People seek to live a healthy life
Reliability	3	People want to fulfil all their commitments to become a reliable person
Saving Exhaustible Resources	2	People strive to save scarce resources.
Independent	2	People want to rely on themselves
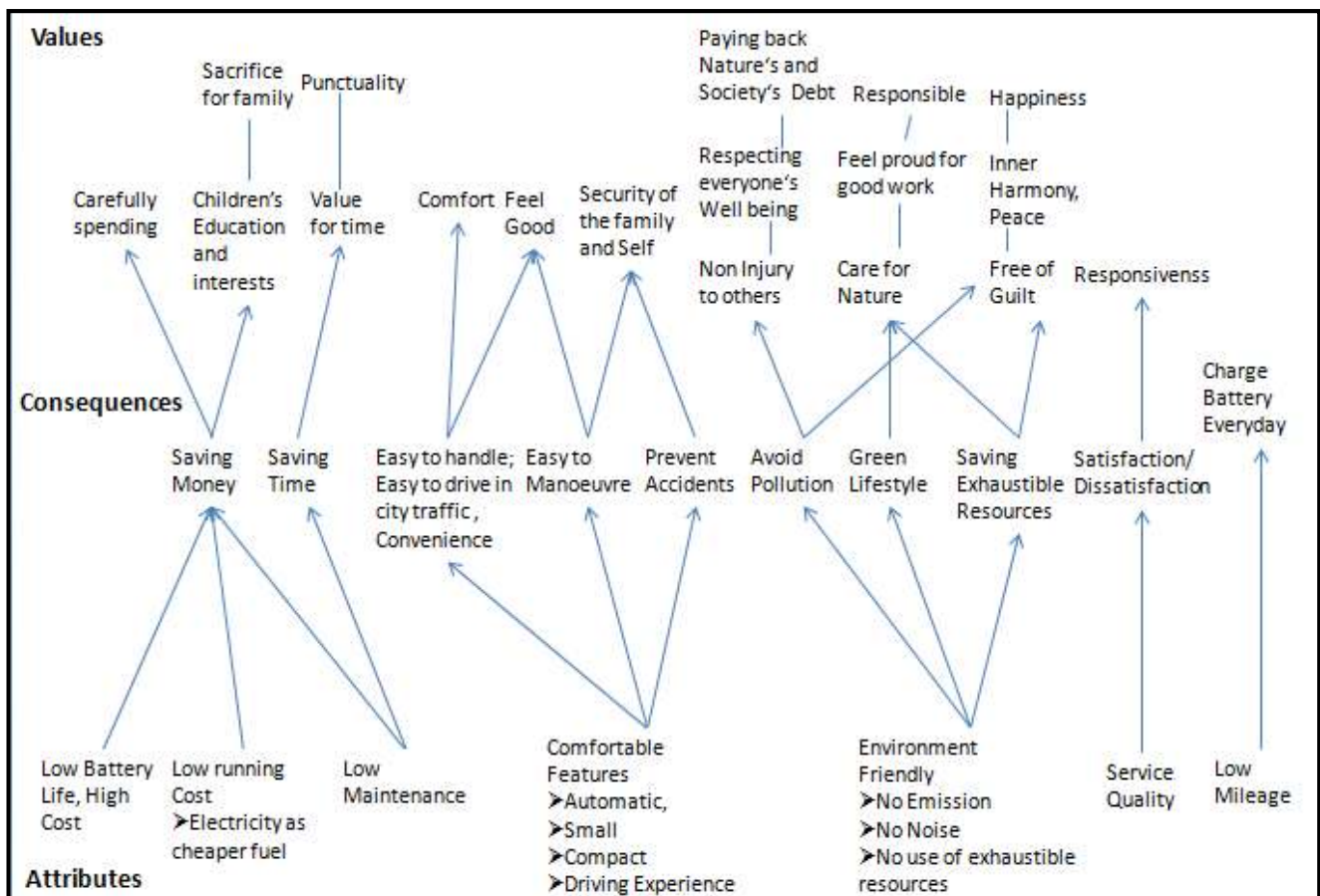
Figure 1: Hierarchical Value Map for Reva usage

Table 5: Values reported by the respondents

Values	No. of times mentioned
Hard Work	6
Punctuality	4
Truthfulness	4
Honesty	12
Integrity	12
Love and Respect for others	7
Helping others	10
Humility	5
Care for family	5
Non Violence	6
Gratitude	4