



## RELATIONSHIP BETWEEN CONSUMER BEHAVIOR AND ECOLOGICAL BELIEF TOWARDS GREEN FOOD PRODUCT

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### ABSTRACT

*This paper deals with the relationship between the consumer behaviour and ecological belief towards green food product. The study was conducted in Chennai, Tamil Nadu. Chennai has the maximum number of organic shops and customers are comparatively aware about green products. The organic shops in Chennai have extended their sales in all varieties of products such as organic vegetables, fruits, cereals, pulses, greens, packaged items and FMCG products etc. These varieties of products attracts more numbers of customers.*

**KEYWORDS:** *consumer behaviour, consumer attitudes, environmental opportunities,*

### 1. INTRODUCTION

The study of consumer behaviour is the study of how a person makes decisions to spend their valuable resource (time, money and effort) on the things related to their utilization. Consumer behavior may be defined as the decision process and physical activity the individuals engage in while evaluating, acquiring, using and disposing of goods and services (Loudon and Bitta, 1993). Engel, 1968 defines consumer behaviour as the act of individuals directly involved in obtaining and using economic goods and services, including the decision process that proceeds and determines these acts. Consumer behavior involves not only the study of what people consume, but where how often and under what conditions this process is completed. FMCG are goods and services which are obtained and consumed by the consumers soon after the purchase, may be in an hour, day, week, or month. The FMCG involves food and drink, papers and magazines, medicines and pharmaceuticals, everyday electrical goods, cleaning and household products etc (Smith, 2011). Smith, 2011 also adds, This is the world of FMCG speed, adaptability, quality and scale. Chen 2008 emphasizes that green product development addresses environmental issues through product design and innovation. Magerholm (2003) has found that green products are eco-efficiency, product or service value per environmental influence. Gurav and Ranchhod (2005) explains that ecological product: product that was manufactured using toxic free ingredients and environmentally friendly procedures and which is certified as such by a recognized organization. Parthasarathy et al. (2005) say eco efficiency: estimates which provide early recognition and systematic detection of economic

and environmental opportunities and risks in existing and future business activities. Today more and more consumers prefer green products and services that fulfil their green needs and are also willing to pay higher for the same (Han and Kim, 2010; Roberts, 1996; Vandermerwe and Oliff, 1990). Forbes et al. (2009) in a study on consumer attitude regarding sustainable wine found that consumers are willing to pay extra for sustainable wine. Similarly a study in China by Shen and Saijo (2009) came up with the conclusion that consumers in Shanghai were willing to pay extra for energy efficiency. In the field of green marketing consumer attitudes have been frequently used in past studies to predict ecologically conscious consumer behaviour and usage of green products. Balderjahn (1998) in a German study found that consumers positive attitude towards ecologically conscious living led them to purchase and use products in ecologically responsible manner (Mostafa, 2007). Although many researchers hold the opinion that consumer attitude toward green behaviours is a significant factor in determining eco-friendly purchasing (Han et al. 2009; Manaktola and Jauhauri 2007), some researchers have pointed out that only a small portion of environmentally conscious consumers actually buy eco-friendly products because of high monetary and non-monetary costs and inconvenience associated with them (Han et al 2009; Roberts 1996). These interesting findings has led the researcher to carry out research to find out the relationship between the consumer behaviour and ecological belief towards green FMCG.

## 2.INDIVIDUAL ECOLOGICAL BELIEFS DIMENSIONS

### ➤Green Products Purchase Intention:

D'Souza et al.,(2006) have developed a conceptualized model that consisted of

seven variables in their study, which investigated the influences of multiple factors on greenproducts for green purchase intention among consumers in Australia. The green purchase intention in the study was conceptualized as two-dimension variables, with price and quality as the measurement for green purchase intention.

Ajzen (1991) the combination of attitudes towards the behavior, subjective norms, and perceived behavioral control guide the formation of an intention, and thus, intention is assumed to be the predecessor of the actual behavior. Again, a central factor in the Theory of Planned Behavior is the individual's intention to perform a given Behavior. Intentions are assumed to control the motivational factors that influence behavior. They are indications of how hard people are willing to try, or how much of an effort they are planning to exert in order to execute the behavior.

Chan (2001) purchase intention has the great possibility to affect the purchase green product and green purchase intention as the predictor of green purchase behavior.

Park and Ha (2012) Green purchasing intention is also examined as an indicator of a subsequent behavior in response to the purchase of green products.

Aman et al., (2012) studied on the relationship between environmental knowledge, concern and green purchase intention among Malaysian consumers by using Theory of Reasoned Action. The research finding indicated that environmental knowledge and environmental concern both have significant influence on the purchase intention on green product. Besides that, the result finding also showed that attitude has partial mediating effect on the relationship between environmental concern and green purchase intention.

Follows & Jobbers, (2000) The purchase intention can be translated to actual purchasing behavior on green products when the consumers believe that their effort on consumption of green products do bring positive effect.

Beckford et al., (2010) research studies, the green purchase intention is a significant predictor of green purchase behavior, which means that the purchase intention is positively affecting the probability of a customer's decision as to whether he will buy green products.

Brown (2003) this study have exposed that consumer with intention to buy products exhibit higher actual buying rates than those customers who demonstrate that they have no intention of buying. Thus, purchase intention positively affects the probability of a customer decision that he will buy green products.

Albayrak et al., (2013). In their study revealed that consumers with high level of concern for the environment and are not skeptical about green products tend to portray positive attitude, norms and high degree of perceived behavioral controls.

Chen (2010) Studies on green purchase intention showed that intention is an influential predictor of green purchase behavior because purchase intention strongly affects the likelihood of decision to buy the product.

### ➤ Safety

Fotopoulos & Krystallis (2002) the objectives of the study is Examine consumer's attitudes and actual organic choice; Analyze the organic aware non-users by identifying organic products rejection reasons and potential organic buyers cluster. Findings of this study shows that main reasons for not purchasing-low availability; low variety of fresh organic products; high price (though decreasing importance); satisfaction with conventional food; Personality variables (ethnocentric tendency/tradition; look for convenience); lack of confidence in advertising campaigns mistrust; Food safety concern; Exploratory buying behavior.

### ➤ Health

Makatouni (2002) Explore beliefs and attitudes of organic food buyers and detect their impact on purchase behavior Organic food perceived as a means of achieving individual and social values- human, animal and environment centered; The health related factor (responsibility for health and well-being for self and the family) is the main motivation for purchasing organic food.

Magnusson et al., (2003) investigate the important of perceived environmental, animal welfare and human health consequences of organic food purchase for consumer's attitudes and self-reported purchase of organic foods and health is the most predictor of attitudes; purchase intention and frequency; Environmental concern- also often stated motive for purchasing organic food; Egoistic motives (health concern) are stronger than altruistic motives (environmental concern and animal welfare). Eating behavior is resistant to change, characterized by affective, non-cognitive components.

Hughner et al., (2007) to review and synthesize the research concerned with identifying organic consumers, and to identify the reasons why consumers purchase and fail to purchase organic food and generally favorable attitudes, but low level of actual purchasing. Motives for purchase organic food-health concern; better taste(perceived higher quality); environmental and animal welfare concern; concern over food safety; Hindrances to purchasing-high prices (WTP); lack of availability; scepticism towards organic food label (distrust); insufficient marketing ; satisfaction with conventional food.

### ➤ Quality

Mondelaers et al., (2009) The Main objectives o this study is whether consumers perceive organic products as healthier as and more environmentally friendly than conventional products; and whether consumers consider health traits more important than environment traits and the findings of the study is Undesirable health related issues (concerning food safety)trigger stronger response than desirable traits (nutrition benefits); consumers classify organic products among others quality niche products; Purchase intention is mainly based upon quality traits, not the organic name; Price is the main barrier for users and light users to increase purchase; The organic label is, in general, associated more with health and environmental quality traits.

### ➤ Self-Image

Oliver and Lee (2010) was examined the relationship between self-image congruence and the purchase intention on hybrid car among 1,803 US drivers (including culture) and 783 Korean drivers (collectivist culture) and also research

findings indicated that consumers from US and Korea had a positive relationship between self-image congruence associated with hybrid car's purchase intention. However, US consumers had stronger intention compared to Korean consumers. The authors suggested that the marketers should understand or identify the culture of the consumers when it related to the purchase intention of hybrid car.

In early studies relating to IEB does not study with buyer behavior. But this present study the researcher attempted to study with buyer behavior

### 3.RESEARCH DESIGN

In order to explore the buyer behavior among the buyers in organic shops based on the personal demographic factors, consumer attitude, Environmental Factors, individual ecological beliefs, and Determinants of Green Products Purchase and to find out the outcome of customer delight was done by the researcher. A survey was conducted among buyer's o organic shops with the help of a questionnaire.

#### Sampling Frame Work

##### ➤ Sampling Area:

The study was conducted in Chennai, Tamil Nadu. Chennai has the maximum number of organic shops and customers are comparatively aware about green products. The organic shops in Chennai have extended their sales in all varieties of products such as organic vegetables, fruits, cereals, pulses, greens, packaged items and FMCG products etc. These varieties of products attracts more numbers of customers. So the researcher has chosen Chennai as the most suitable place to conduct this research.

##### ➤ Sampling Method:

In this study the researcher adopted the convenience sampling for selecting the sample. Convenient sampling procedure is used to obtain those units or people most conveniently available. Researcher generally uses convenient samples to obtain a large number of completed questionnaires quickly. There will not be bias in the response while using the convenient sampling since the respondents voluntarily participate in the survey. As the respondents show interest to fill up the questionnaires, so convenient sampling method is the suitable sampling method available in this situation

In Chennai more than 25 registered green stores are functioning out of which the researcher has taken 25 stores for data collection. From each stores 15 to 30 respondents were selected conveniently. The questionnaires were distributed to 540 respondents (who are willing to participate). In that 509 respondents fully completed the questionnaires remaining 31 questionnaires were incomplete so those questionnaires were rejected. Hence, for the further study 509 respondents were considered.

### DATA COLLECTION

The primary data was collected by using hard copy of questionnaire. The researcher personally circulated the questionnaires to the respondents and they were requested to answer the questions according to the instruction given in the questionnaires. The completed questionnaires were collected by the researcher. The responses were scored according to the instructions given in each scale. The results are tabulated, analyzed and discussed in the next chapter.

### INSTRUMENTS DESCRIPTION

#### ➤ Personal Demographic Factors:

Personal demographic factors like, age, gender, educational qualification, profession, monthly income, numbers of members in family , family type, marital status and number of degree holders in family have been studied with buyer behavior.

- Buyer Behavior dimensions Scales
  - Perception scale developed by Thejaswini H.D, Dr.B.Nagaraju (2013)
  - Decision Making, satisfaction developed by Chen, Chai (2010)
- Customer attitude towards green products developed by Pawanpreet, Anjupuri (2014) Environmental attitude developed by Do valley (2005)
- Environmental concern, Environmental knowledge and Health conscious developed by Pukkapop Kongkajaroen (2014)
- Green purchase intention, Self image and Social influencedeveloped by Zia-ur-rehman (2013)
- Safety, Quality developed by Cheiew shi wee (2014)
- Green product value, Green advertisement developed by Wilsion Kong (2014)
- Customer Delight developed by Kenneth K.Kwon, Oliver H.M. you (2002)

Table - 1 : Level of Individual Ecological Beliefs

Level	IEBD										Overall individual ecological beliefs	
	Green purchase intention		Health conscious		Safety		Quality		Self image		N	%
	N	%	N	%	N	%	N	%	N	%		
Low	92	18.1	479	94.1	118	23.2	40	7.9	40	7.9	90	17.7
Medium	327	64.2			288	56.6	272	53.4	303	59.5	396	77.8
High	90	17.7	30	5.9	103	20.2	197	38.7	166	32.6	23	4.5
<b>Total</b>	<b>509</b>	<b>100.0</b>	<b>509</b>	<b>100.0</b>	<b>509</b>	<b>100.0</b>	<b>509</b>	<b>100.0</b>	<b>509</b>	<b>100.0</b>	<b>509</b>	<b>100.0</b>

Source: Primary Data

Table 1 depicts the level of individual ecological beliefs and its dimensions perceived by respondents. It is observed that 77.8 percent of the respondents experience overall individual ecological beliefs, 17.7 percent of the respondents experience low level of overall individual ecological beliefs and only 4.5 percent of the respondents experience high level of individual ecological beliefs. It is quite interesting to note that individual ecological beliefs dimensions, 7 to 24 percent

of respondent's perception is low towards all dimensions of individual ecological beliefs except health conscious which has 94.1 percent. Especially 94.1 percent of the respondent's perception is low with regard to health conscious, 53 to 65 percent of the respondents have medium level of perception towards individual ecological beliefs dimensions. It is interesting to note that none of the respondents have medium level perception towards health conscious. The table indicates

that 17 to 39 percent of respondents have high level perception towards all dimensions of individual ecological beliefs. Especially 38.7 percent of the respondents perceive high level of quality.

So it is found that individual ecological beliefs dimensions at moderate level. It is also found that 64.2 percent of the respondents perceive medium level of green purchase intention; around 38.7 percent of the respondents perceive high level of quality.

**Table - 2: Shows the Relationship Between Individual Ecological Beliefs and Buyer Behavior**

IEBD	BBD						Overall buyer behavior	
	Decision Making		Green Customer Satisfaction		Perception			
	r-value	p-value	r-value	p-value	r-value	p-value	r-value	p-value
Green Purchase Intention	0.231**	0.000	0.129**	0.003	0.221**	0.000	0.239**	0.000
Health Conscious	0.185**	0.000	0.213**	0.000	0.173**	0.000	0.220**	0.000
Safety	0.148**	0.001	0.132**	0.003	0.237**	0.000	0.223**	0.000
Quality	0.206**	0.000	0.185**	0.000	0.182**	0.000	0.226**	0.000
Self image	0.173**	0.000	0.181**	0.000	0.165**	0.000	0.206**	0.000
Overall Individual ecological beliefs'	0.290**	0.000	0.250**	0.000	0.300**	0.000	0.339**	0.000

\*\* Correlation is significant at the 0.01 level (2-tailed)

Table 2 shows the correlation between the overall Individual ecological beliefs' and its dimensions and overall buyer behavior and its dimensions.

**H<sub>0</sub>-2:** There is no significant correlation between overall Individual ecological beliefs' and its dimensions and overall buyer behavior and its dimensions.

The r-value 0.339 indicates that there is correlation between overall individual ecological beliefs and buyer behavior. It is inferred from the result that there is significant correlation between overall Individual ecological beliefs 'and buyer behavior dimensions perceived by the respondents.

The decision making is found to be positively correlated with overall individual ecological beliefs with the r-value 0.290 and it is found to be significant at 5 percent level.

The customer satisfaction has positive correlation with overall individual ecological beliefs among the respondents with the r-value of 0.250 and also it is significant at five percent level.

It is also noted from the correlation result that there is significant correlation between perception and overall Individual ecological beliefs with r-value of 0.330 and it is found to be significant at 5 percent level.

The r-values of the all individual ecological beliefs dimensions indicates that there is correlation between overall buyer behavior and individual ecological beliefs dimensions and the result shows that it is significant at five percent level.

It is revealed that all individual ecological beliefs dimensions such as green Purchase intention, health conscious, safety, quality and self image has positive correlation with all buyer behavior dimensions such as decision making, customer satisfaction and perception perceived by the respondents.

It is concluded that overall individual ecological beliefs and its dimensions has significant positive correlation with overall buyer behavior and its dimensions that means if the individual ecological beliefs increase among the respondents it will increase buyer behavior towards green products.

## CONCLUSION

The buyer behavior is studied in terms of three dimensions such as decision making, consumer satisfaction and perception. It is found that all the three dimensions are perceived at moderate level by the respondents. The overall buyer behaviour is also at moderate level towards green food products. The ecological belief of the respondents is studied in terms of green purchase intention, health conscious, safety quality and self image. It is found that the level of ecological belief of the respondents is moderate. It is concluded that overall ecological beliefs and its dimensions has significant positive correlation with overall buyer behavior and its dimensions that means if the ecological beliefs increase among the respondents it will increase buyer behavior towards green food products.

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