Sustainable Consumption: A Study on Factors Affecting Green Consumer Behavior

V. Sravani Chari¹, M. Sivakoti Reddy²

¹Research Scholar, Department of Management Studies, VFSTR Deemed to be University, Vadlamudi, Guntur.
²Associate Professor, Department of Management Studies, VFSTR Deemed to be University, Vadlamudi, Guntur.

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Abstract

Consumer awareness towards the environment and preference for more environmentally safe products is growing steadily around the world. This shift in consumer thinking levels has led to birth of a new category of consumers – The Sustainable Consumers”. Thus, sustainable production and consumption have gained prominence and are changing the consumption patterns of people. The shift towards green lifestyle is more among the youngsters. Thus, the study aims at determining the factors that led the young consumers towards the path of sustainable consumption. The factors that were under investigation in this study were consumer beliefs, Health consciousness, Environmental awareness and perceived quality. The data has been collected from 300 youngsters in different areas of Hyderabad.

Keywords : Sustainable consumption, environmentally safe products, Green purchasing behavior

I. Introduction

Consumer consumption of goods and services increased enormously throughout the globe, resulting in reduction of natural properties and unadorned impairment to atmosphere. Consequences of ecological impairment are global warming, augmented ecological smog and deterioration in flora and fauna. Several nations around globe have realized this hazard and have started working towards abating the destructive effect of their commerce transactions on the atmosphere[X]. Increasing acquaintance on various environmental problems has brought a change in life of the consumers. This consciousness and concern towards themselves and the society has led to the emergence of “Sustainability Development” – which thrives for the need to endorse sustainability and improvement, which minimizes undesirable influence on the
atmosphere and civilization. Sustainable Development further inspires sustainable or ecofriendly consumption [II].

Sustainable Consumption is concerned with environmentally accountable consumption, where consumers consider the environmental effect of their purchases, usage and disposal of various products [I] [III]. Ecologically conscious buying is becoming prominent as purchasing of harmful products can severely affect the environment [IV]. Consumers can prevent environmental damage by purchasing green products. Increasing levels of global warming and climate changes have become emerging issues for marketers to promote sustainable consumption.

II. Literature Review

Numerous studies have been conducted regarding green harvests. Few research outputs of shared endeavors about consumer awareness and perception towards ecofriendly items. The pioneer studies on green marketing took place in the 1970s but green marketing expanded consideration from a wider spectators in late 1980s and the 1990s [V]. Some authors claim green buying behaviour as a result of perceived product price and quality [VI], company’s environmental reputation [VII], environmental concerns [VIII] and trustworthiness of environmental advertising [IX]. Consumers who care for nature choose less polluting products, to recyclable and have limited level of consumption. Consumers have self responsibility towards nurturing environment [X]. As far as India is concerned, green marketing concept is in its infanticide stage [XI] and the Indian “eco mark” scheme does not make any significant impact on Indian domestic market [XII]. The study conducted by [XIII] suggests to adopt more promotional techniques to inculcate the habit of using green products in Indian society. There are several studies with regard to Environmental awareness and its influence of green purchase behaviour worldwide [XIV]. But not much work could be drawn explicitly directed on green products perception and purchase intention among youngsters in India. Thus, the study tries to have a glance into youngster’s awareness and attitude towards purchase of green products.

III. Research Objective

The objectives of the present study are as follows:

1) To study the connectivity among the consumer belief and green purchasing behavior
2) To examine the association among Environmental awareness and green purchase behavior
3) To study the rapport between Health consciousness and green purchasing behavior
4) To determine the relation between perceived quality and green purchasing behavior

| Variables                  | Dependent variable                        | Independent variable                          |
|----------------------------|-------------------------------------------|-----------------------------------------------|
| Conceptual Framework       | Build on Azjen’s (1991) TPB Model         |                                               |
| Hypothesis                 | Four Hypothesis relating research objectives |                                               |
| Research Design            | Sampling Method- Survey                   | Types of data – Primary, Secondary Analysis – Hypothesis Testing |
| Variable Measurement       | Scale Rating, Validity and Reliability Testing |                                               |
| Tool for collecting data   | Questionnaire                             |                                               |
| Data Analysis              | Descriptive                               | Hypothesis Testing                           |
|                            |                                           | Correlation Analysis, Simple Regression, Multiple Regression |

Table.1. Description on the variables used in the study

III.i. Research Model

Based on the literature review and the following research model has been developed incorporating all the variables.

![Research model](image)

Fig.1. Research model
The above research model suggests that the factors like consumer beliefs, health consciousness, environmental awareness and perceived quality of green products have an important impact on green purchasing behavior among youngsters in Hyderabad.

III.ii. Research Hypothesis

H1: Consumer Belief is positively related to green purchasing behavior
H2: Environmental awareness of consumer is positively related to green purchasing behavior
H3: Health consciousness is positively related to green purchasing behavior
H4: Perceived quality about green products is positively related to green purchasing behavior.

III.iii. Research Methodology

Data collection: The research objectives have been investigated by taking into consideration both primary and secondary data. The secondary data was collected from previous articles, books and the internet. Primary data was collected using a structured questionnaire with a four-point likert scale incorporated in it. Sample size
The sample size collected was 300 in order to analyze the impact of various factors (Consumer Belief, Environmental Awareness, Health Consciousness and Perceived Quality) on purchasing behavior of green consumers.

IV. Data Analysis

IV.i. Demographic Profile of the Respondents

The primary data was collected from different levels of employees in the hotel industry. Totally 852 respondent’s data is collected and analyzed. Respondent’s demographic and socio-economic characteristics are presented in the following.

IV.ii. Respondent’s Socio-economic, Demographic and Geographic characteristics

The primary data depicted that, there are 509 male (59.7 percent) and 343 female (40.3 percent) respondents considered for the study. Considered for the study there are 287 (33.7 percent) respondents in the age group of 20-30 years, 309 (36.3
percent) members in the range of 30 – 40 years of age, 147 (17.3 percent) of members in the range of 40-50 years, 51 (7.84 percent) are in the range of 50-60 years and 58 respondents had more than 60 years of age. Among the total employees, 797 (93.5 percent) are married and 55 (6.5 percent) are unmarried.

The data has been collected from 250 (25.4 percent) accommodation division employees, 339 (39.8 percent) are from entertainment division and 263 (30.9 percent) are from travelling division. 122 (14.3 percent) of the employees had SSC as their qualification, 507 (59.5 percent) employees had degree as their highest qualification and 223 (26.2 percent) of the employees had post-graduation as qualification. The major chunk of the respondents i.e., 454 (53.3 percent) has 3 to 4 members in their family, 194 (22.8 percent) has 4 to 5 members in their family, 114 (13.4 percent) had 2 to 3 members in their family and 63 (7.4 percent) had more than five members in their family. Majority of the respondents 567 (66.5 percent) had 0 to 2 years of experience, 113 (13.3 percent) had 2 to 5 years of experience. 126 (14.5 percent) had 5 to 10 years of experience and 46 (5.4 percent) of the employees have more than 10 years of experience.

IV.iii. Cross Tabulation Analysis:

The cross-tabulation analysis towards the purchasing of green products revealed that out of 509 male respondents, 63.65 percentage responded that they will purchase yearly once, 22.59 percent responded that they will purchase half yearly once. Out of 343 female respondents, 68.22 percent responded that they will purchase yearly once, 12.24 percent responded that they will purchase half yearly once. The analysis further stated that out of 287 respondents under the age group between 20-30 years, 37.28 percent responded that they will purchase yearly once, 26.69 percent responded that they will purchase half yearly once. Out of 309 respondents under the age group 30-40 years, 54.05 percent responded that they purchase yearly once, and 22.33 percent responded that they will purchase half yearly once. Out of 147 respondents under the age group 40-50 years, 65.98 percent responded that they purchase yearly once, and 19.04 percent responded that they will purchase half yearly once. Out of 51 respondents under 50-60 years, 50.98% responded that they purchase yearly once and 23.52% responded that they will purchase half yearly once. Out of 58 respondents above the age group 60 years, 37.97% responded that they purchase yearly once and 25.86% responded that they will purchase half yearly once.

Out of 797 respondents who are married, 56.33 percent responded that they will purchase yearly once, and 28.23 percent responded that they will purchase half yearly once. Out of 55 respondents who are unmarried, 41.81 percent responded that they will purchase yearly once, and 25.45 percent responded that they will purchase half yearly once. Out of 250 respondents under the job division of accommodation, 75.2 percent responded that they will purchase yearly once, and 10.4 percent
responded that it is conducted quarterly. Out of 339 respondents under the job division of entertainment, 81.41 percent responded that they purchase yearly once, and 5.89 percent responded that it is conducted quarterly. Out of 263 respondents under the job division travelling, 71.10 percent responded that they purchase yearly once, and 12.62 percent responded that they will purchase half yearly once.

Out of 122 respondents with SSC/diploma qualification, 63.1 percent responded that performance appraisal is conducted rarely and 19.67 percent responded that they will purchase half yearly once. Out of 507 respondents with degree qualification, 81.46 percent responded that they will purchase yearly once, and 10.25 percent responded that they will purchase half yearly once. Out of 223 respondents with qualification PG, 69.05 percent responded that they will purchase yearly once, and 12.55 percent responded that they will purchase half yearly once. Out of 27 respondents with family size 1 to 2, 44.44 percent responded that they will purchase yearly once, and 33.33 percent responded that they will purchase half yearly once. Out of 114 respondents with family size 2 to 3, 45.61 percent responded that they will purchase yearly once, and 21.05 percent responded that they will purchase half yearly once. Out of 454 respondents with family size 3 to 4, 87 percent responded that they will purchase yearly once, and 5.06 percent responded that they will purchase half yearly once. Out of 194 respondents with family size 4 to 5, 63.91 percent responded that they will purchase yearly once, and 11.34 percent responded that they will purchase half yearly once. Out of 63 respondents with family size above 5, 36.50 percent responded that they will purchase yearly once, and 22.22 percent responded that they will purchase half yearly once.

Out of 52 respondents with manager cadre, 50 percent responded that they will purchase yearly once, and 23.07 percent responded that they will purchase half yearly once. Out of 79 respondents with asst. manager cadre, 40.50 percent responded that they will purchase yearly once, and 27.84 percent responded that they will purchase half yearly once. Out of 217 respondents with working as customer representative, 68.20 percent responded that they will purchase yearly once, and 12.90 percent responded that they will purchase half yearly once. Out of 152 respondents working as chef/cook, 53.28 percent responded that they will purchase yearly once, and 19.07 percent responded that they will purchase half yearly once. Out of 352 respondents working as supporting staff, 77.55 percent responded that they will purchase yearly once and 8.52 percent responded that they will purchase half yearly once. Out of 567 respondents with 0 to 2 years work experience, 58.20 percent responded that they will purchase yearly once, and 23.98 percent responded that they will purchase half yearly once. Out of 113 respondents with 2 to 5 years, 46.01 percent responded that they will purchase yearly once, and 20.35 percent responded that they will purchase half yearly once. Out of 126 respondents with 5 to 10 years, 61.11 percent responded that they will purchase yearly once, and 19.04 percent responded that they will purchase
half yearly once. Out of 46 with more than 10 years, 53.17 percent responded that they will purchase yearly once, and 26.08 percent responded that they will purchase half yearly once.

The cross-tabulation results between respondents’ opinion on conduction of performance appraisal with gender revealed that (0.540, df 1, p>0.05) usual conduction of performance appraisal has no significant association with gender. The cross-tabulation results between respondents’ opinion on conduction of performance appraisal with age revealed that (6.987, df 4, p>0.05) usual conduction of performance appraisal has no significant association with age. The cross-tabulation results between respondents’ opinion on conduction of performance appraisal with marital status revealed that (0.483, df 1, p>0.05) usual conduction of performance appraisal has no significant association with marital status.

The cross-tabulation results between respondents’ opinion on conduction of performance appraisal with Job division revealed that (8.486, df 3, p>0.05) usual conduction of performance appraisal has no significant association with Job division. The cross-tabulation results between respondents’ opinion on conduction of performance appraisal with Education revealed that (1.022, df 2, p>0.05) usual conduction of performance appraisal has no significant association with Job division. The cross-tabulation results between respondents’ opinion on conduction of performance appraisal with family size revealed that (12.528, df 4, p>0.05) usual conduction of performance appraisal has no significant association with family size.

The cross-tabulation results between respondents’ opinion on conduction of performance appraisal with cadre of the respondent revealed that (12.753, df 16, p<0.05) usual conduction of performance appraisal has a significant association with cadre of the respondent. The cross-tabulation results between respondents’ opinion on conduction of performance appraisal with span of experience revealed that (10.000, df 3, p.0.05) usual conduction of performance appraisal has a significant association with span of experience.

**IV.iv Inferential Analysis**

The data analysis tools used are descriptive statistics (mean, standard deviation), Pearson Correlation.
Table 2. List of Hypotheses and the tests to be used for the analysis

V. Results and Analysis

The ANOVA Table below is used to examine the significance of the result. The null hypothesis where the value of multiple R is 0, was examined. The result of this study presents sig = 0.00 indicating P < 0.05.

| H  | Details                                                                 | Types of the Data Analysis                          | Indicator                                                                                            |
|----|-------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 1  | Relationship between consumers’ belief and green purchasing behavior    | Descriptive, Correlation, and Regression Analysis    | Standard Deviation, Mean, Pearson Correlation, Adjusted R² value, Sig. level P < 0.005                |
| 2  | Relationship between Environmental awareness and green purchasing behavior | Descriptive, Correlation and Regression Analysis    | Standard Deviation, Mean, Pearson Correlation, Adjusted R² value, Sig. level P < 0.005                |
| 3  | Relationship between Health consciousness and green purchasing behavior  | Descriptive Statistics, Correlation and Regression Analysis | Standard Deviation, Mean, Pearson Correlation, Adjusted R² value, Sig. level P < 0.005                |
| 4  | Relationship between perceived quality and green purchasing behavior    | Descriptive Statistics, Correlation and Regression Analysis | Standard Deviation, Mean, Pearson Correlation, Adjusted R² value, Sig. level P < 0.005                |

Table 3. Model Summary

A Independent Variables: (Constant), Consumer beliefs; Environmental awareness; Health consciousness; Perceived quality of green products.

b Dependent Variable: Green purchasing Intention.
When the inter correlation of the independents is higher, the tolerance is closer to zero. The rule of thumb suggests a problem with multi-co linearity, when the tolerance is less than 0.20. However, high multicollinearity of the variable with other independents is indicated if tolerance is close to 0. Furthermore, the b and beta coefficients would be unstable.

If VID is high, the multicollinearity is also high, and hence the unsteadiness of the ‘b’ and the beta coefficients is higher as well.

| Model  | Sum of Squares | df | Mean Square | F     | Sig. |
|--------|----------------|----|-------------|-------|------|
| Regression | 89.717         | 2  | 44.858      | 81.403| 0.000|
| Residual | 121.786        | 221| 0.551       | 75.66 | 0.000|
| Total   | 211.503        | 223| 0.665       | 82.43 | 0.000|

Table.4. ANOVA

|   | Unstandardized Coefficients | Standardized Coefficients | t   | Sig. | Collinearity Statistics |
|---|-----------------------------|---------------------------|-----|------|-------------------------|
|   | B      | Std. Error | Beta |     | Tolerance | VIF |
| 1 | (Constant)| -.653      | .226 | -2.897| 0.004   |       |
|   | CB     | -.491      | .065 | -2.86 | 0.000   | 0.888 | 1.12|
|   | EA     | .810       | .051 | 16.004| 0.000   | 0.912 | 1.09|
|   | HC     | .243       | .031 | 7.914 | 0.000   | 0.898 | 1.11|
|   | PQ     | .644       | .046 | 13.850| 0.000   | 0.904 | 1.10|

Table.5. Represents the correlations among the variables.

V.i. Dependent Variable: GPI

As depicted in Table, the range of the tolerance is from 0.888 to 0.912 which is greater than 0.10. Hence, there is no violation in the multicollinearity assumption. The value of VIF (>1.0) also proves the same. Environmental awareness represents the largest beta coefficient value i.e., 0.593 (excluding the negative signs), which indicate that Environmental awareness is a major predictor of green purchasing intention. The beta values for Consumer beliefs (.286); Health consciousness (.295); Perceived quality of green products (.515) were less significant predictors.

V.ii. Contribution of the Study

The contribution of the study can be explained in two categories: General and Specific

General: The contribution of the study in general can be described in terms of

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Marketing academia: Green consumer behaviour is an upcoming concept, thus there is a wider scope for the academic world to identify the various factors influencing the green purchasing behaviour.

Public: The study enhances the acquaintance and awareness among the public by explaining the significance of green concept and encouraging them to shift towards sustainable consumption.

Specific: The contribution of the study in specific can be discussed as follows:

Marketers: The study can be useful to marketers in identifying the various factors influencing the green consumption behavior and thus can design their marketing strategies.

Companies and businesses: The study helps companies and businesses to practice sustainable product development, thus increasing sales and profits. It also helps them regarding how to enhance customer awareness towards green products.

V.iii. Findings

Respondents have strong belief towards the environment with regard to green purchasing behaviour (mean= 3.27, S.D. =0.49)

Respondents show a positive attitude towards environment and are in favor of increasing environmental awareness among people, reprocessing their household waste and promoting green lifestyle. (Mean=3.19, S.D. = 0.55)

Most of the respondents agreed upon the perceived quality of green products. The higher score (3.43) depicts higher quality of green products as a strong indicator of green purchasing behavior. The standard deviation was 0.44 indicating minor dispersion.

Respondents agree on opting green products among others. This can be supported by the high score of the mean (3.64).

V.iv. Recommendations

Positive belief of consumers influences green purchasing behavior. Therefore, consumers should be well educated through efficient campaigns and advertisements which build trust and confidence among young people.

As health consciousness affects positively and significantly the purchase intention of consumers, thus marketers need to educate young consumers and increase their awareness regarding green purchasing through different knowledge constructing activities.

There is a need to enhance the positive attitude of consumers towards green purchasing behavior through proper education and acknowledgement.

Quality of green products needs to be maintained and highlighted to motivate green purchasing.
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