

A shift towards eco-friendly: An analysis of the factors influencing consumer buying decisions and regulatory norms concerning green agro products in J&K.

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Abstract

The rise in awareness among individuals on diverse environmental issues has guided them to shift their thoughts as consumers in choosing their lifestyles. Utilization of synthetic concoctions and manures has ruined the earth and individual wellbeing. There has been a transition in the attitudes of consumers towards an eco-friendly life. Humans have introduced new ideas and ways through their active involvement to reduce their negative impact on the environment. Though, it is in progress and is expected to be widespread soon, efforts in this direction are coming from all fronts as the world is combating poor health and other ill impacts of synthetic production and consumption. Government organizations and other business firms are now playing a significant role to improve the present agricultural conditions in India which is expected to change the attitudes of consumers towards the consumption of green products. It will gain an edge in the global competitive market by exploiting the potential in the green market agricultural sector. The current study introduces the concept of eco-friendly agricultural products and organic farming and also looked into various ways by which different consumer attributes are related to the concept of environmentally sustainable agricultural products and services.

Keywords: environment, consumer, attitude, agriculture, eco-friendly, organic, farming sustainable etc.

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I. INTRODUCTION

Global climatic changes have led to natural catastrophes and therefore numerous environmental challenges for most of the countries to combat with. While for many decades now most of the developing nations across the globe including India growth took precedence to the environment succumbing to pressures of population growth, Inefficient Technology, weak governance and poverty which prompted a desire for continuous social and economic growth (Serageldin, Ismail et.al, 1994). However, rising challenges like ozone layer destruction, global warming, biodiversity loss, natural disasters like floods, earthquakes etc. and the recent economic crisis worldwide have generated a concern towards the production of environment-friendly and sustainable products across the globe, where a nation strives to meet its economic milestones along with due consideration to sustainability and protection of environment. (EEA, 2006).

All human actions in the race for the growth and development treaded across through synthetic and chemical usages which has led to abuse and over utilization of limited available resources with mankind, including that of agricultural lands. Developing nations thus found a new dilemma of whether to follow unprecedented growth as was done by developed nations or to choose the path of conservation (McConnell, Campbell et.al, 2002). All this in the current era of modern scientific knowledge has conclusively led to the growth of the concept of sustainable development and therefore the concept of Sustainable agriculture. The field of agriculture is considered to be an entitled area of concretization due to its significant environmental, economic and social impacts of agrarian systems on a global scale (Uziak, Jacek et.al, 2017). There is a necessity to replace chemical and synthetic food production and create a more sustainable alternative based on environmental friendly and organic agriculture. The initiation of agricultural sustainability is beneficial to rural development and extremely vital for the restoration of demeaning ecosystems. Also, it has a historical affirmation that agriculture since ages has contributed towards development and has also maintained an economic, social and ecological balance in the society (Ahlen and Hamas, 2017).

Protection and maintenance of ecological resources on global scale is indispensable for the production of food now as well as for the future. Practices in agro ecology can enhance resilience in agriculture that influences climatic changes, regenerate the soil health, protect the water resources and foster biodiversity in soil and also enhance the natural weed and pest management. Reduction in greenhouse gas emissions and removal of excess CO₂ from the atmosphere by the storage of carbon in soil is inexpensively carried out through

ecological farming practices. Agro ecology along with sustainable farming practices provides social and political principles that promote a representative revision of the food system (HLPE, 2016). There is comparatively a low generation of greenhouse gases through agro-ecological farming systems than through the chemical-based agriculture. The global climatic changes can be mitigated through well-managed soils that serve to be a significant source of carbon sink. Around 20 percent of all the global annual CO₂ emissions can be controlled by soil management during agricultural activities. The water demand of farmers are reduced through organic soil-building practices which are executed by improvement in water capture, storage and infiltration processes. The water storage capacity of the soil is enhanced by 16,000 gallons per acre-foot with every 1 percent rise of organic matter in soil. Diverse “systems approach” in organic agriculture has been considerably fruitful and tougher than “industrial monoculture farming” during drought conditions (Cook et al., 2016).

In India, where the agriculture industry is the biggest in terms of human resource and total farming area, organic farming is the most natural methods for growing crops, using organic fertilizers and manures like cow dung and vermi-compost. Over the past couple of years, it has been observed that the organic farming sector in India is entering a transformation stage, due to an increase in new ventures. These ventures have begun to disrupt the market with their one-of-a-kind offering. India currently holds a prominent position among 172 countries that actively practice organic agriculture globally. Organic farming industry in India holds immense potential to grow in future (Entrepreneur India, 2017).

Aims and Objectives

The major objectives of this study are:

- To study consumer behavior towards eco-friendly products in the study area.
- To study the various factors influencing consumer decision in purchasing eco-friendly products in the study area.
- To study the awareness level among the consumers regarding eco-friendly products in the study area.
- To study the role of regulating authorities in promoting eco-friendly agricultural products.

II. LITERATURE REVIEW

The term, eco-friendly is used for the products which are developed in consistency with the sustainability of environment and do not hamper or obstruct the nature's path. In other words, they are environment-friendly or green. There are agricultural products that are eco-friendly and help to shape our lifestyles and are designed to benefit the surrounding ecology (Sehgal and Singh, 2010). The consumers across the world, after evident ill impacts of chemical products on health have played a key role in the promotion of eco-labeled products by building demand and thus promoting manufacture and marketing of organic products for better ecological sustainability and healthy consumption.

2.1 Consumer purchase decision on green agro-products

The basis of marketing of any kind of products are the consumers, which certainly makes it vital to understand their role, need and demands, their decision making processes and consumption preferences. Therefore, on this basis proper and adequate decisions are taken in choosing a marketing mix (Bojkovska et al., 2013).

Through a variety of direct retail outlets, consumers most traditionally purchase the products of their need. For agricultural products, farmers market, roadside or on-farm markets, and agro-tourism events are considered as the general forms of outlets. Some of the related new market outlets are home delivery, internet homepages, online auctions, mail orders and virtual grocery stores (King et al., n.d). Purchase behaviour of consumers towards eco-friendly food is positively driven by the positive attitude towards environment (Marcia, et al, 2014). Demographically consumers differ on being green such as consumers having more age, female consumers, married consumers and higher educated consumers exhibit more green purchase behaviour (Aytekin & Buyukahraz, 2014). Consumers with diverse product purchase needs and concerns generate more innovative opportunities in marketing. One of the best ways to educate consumers is through food product labeling, but such educational procedures are expensive and time consuming for some small scale producers. Therefore, to meet the requirements of the consumers, who are time and price-conscious would demand better creative marketing approaches in the future (King et al., n.d).

2.2 Indian Retail trade and green agro-products

The production of green agro products has transpired to develop into a logical response for the global ecological, environmental and agricultural crisis that the world including india has been witnessing postindustrial as well as developmental eras . Agro ecological development had emerged as a key solution to combat the interconnected economic, social, and ecological obstacles experienced by the nation today (Unger, 2015).

For centuries, agriculture has been practiced and regarded as the backbone of Indian economy. Out of the total population in India, about 65 percent, are directly depended on agriculture and accounted for 22 percent of the GDP. The role of agriculture has been significant as it maintained the crucial demand and supply links with the manufacturing sector. This sector had witnessed a spectacular boost in production and for the productivity of food grains, commercial crops, fruits, vegetables, food grains, poultry and dairy etc. in the past few years. Further, India progressed to be the second largest producer of vegetables and fruits across the world inclusive of being the greatest overseas exporter of spices and cashews along with being the highest milk producer in the world (Tyagi, 2004).

Being one of the largest retail markets in Asia, the Indian retail market has a scope to develop as potential retail player for future global investments. Recently, the Indian retail sector has been incentivized with 51 percent of foreign direct investment (FDI) in multi-brand retail and 100 percent in single-brand retail. The country in response to these developments had investments from global retailers (Report on Global Practices in Promoting Environmental Sustainability, 2014). In India, agro ecological practices like Zero Budget Natural Farming, Community Managed Sustainable Agriculture (CMSA) and integrated duck rice farming with the introduction of organic markets had a crucial impact on the household incomes in India across a variety of geographical extends (Unger, 2015). In response to the rising debts among the Indian farmers and consequent rise in farmer suicide cases, a new trend for Zero Budget Natural Farming (ZBNF) was introduced. Community Managed Sustainable Agriculture (CMSA) models were developed in the state of Andhra Pradesh that was particularly successful amongst local farming communities as it was practiced at a larger scale across 3,500,000 acres, by an estimated 500,000 farmers in the year 2011. In the states of southern India, farmers took a unique agro ecological technique called the Aigamo method (Unger, 2015).

Good quality of life for all, along with environmental sustainability and promotion of fair relationships among individuals had been developing through the combination of science, innovation and tradition involved in organic agriculture. The popularity of organic products in the global market has grown at a faster rate (CAGR 16 percent) than that for the conventional products (CAGR 10 percent). India encountered as the highest producer of organic products globally with 8,35,000 organic farmers. Under the area for organic cultivation, India was ranked Ninth with 1.49 million hectares and further consumed a strong position as a producer of organic products. India has exported around 1.35 million tonnes of certified organic food products worth INR1,937 crores in 2015-16 that were widely concentrated across US, Europe (EU), Canada, Japan and the West Asian markets. India, also emerged out to be the largest exporter of organic cotton across the world (Assocham Report on Indian Organic Market, 2018).

A set of marketing tools and elements that empowers a firm to serve the target market and attain organizational goals without harming the surrounding natural environment was targeted as the strategy for the promotion of Green marketing. It also aimed to facilitate the sale of goods and products and was involved actively for protection of the environment and motivated individuals to avail green products for sustainable development in the country (Eneizen and Wahab, 2016).

2.3 Government policies on green agro-products

To generate awareness among the farmers on the advantages of organic agriculture, organic awareness programs were developed both by public institutions and NGOs. Awareness programs have been conducted by the APEDA for organic production in some of the states in collaboration with the respective State Governments (Babar, 2012).

It was emphasized that the Indian Government policies were made towards achieving food-grain self-sufficiency and that did not necessarily coincide with the agricultural sustainability. The production and productivity in agricultural growth had risen chiefly during 1970s and 1980s and declined during the 1990s. Such slowdowns have worsened since 2000, both gross agricultural production and food grains production has shown negative growth rates in 2000-01 to 2002-03 period. The growth rates of agricultural production and productivity declined which generated serious concerns considering the questions of food security, livelihood, and environment. Further, a critical examination of the approaches for sustainable agricultural development was essential. This examination must be framed not only by India's ongoing need to ensure food self-sufficiency but also by the consequences of access to international markets (Babar, 2012).

The policy in agriculture comprised of different components related to agricultural production, processing, marketing etc. Different agencies are involved in the implementation of agricultural policy at several levels. About policies for agricultural production is the responsibility of the Ministry of Agriculture, horticulture, irrigation and power etc. On the other hand, price-related policies involved ministries of commerce, processing and agricultural marketing commodity boards, corporations like the Cotton Corporation of India (CCI) etc. Credit was significant as agricultural inputs, and RBI, NABARD, the ministry of finance, commercial banks, and regional rural banks are involved in the implementation. Different central and state agricultural research institutions and universities are involved in knowledge production and agricultural extension work.

Also, there were various agencies at the center and states that are responsible for the implementation of various components of the agricultural policy.

- **Price Policy**

The key objective of the price policy was to protect both producers and consumers. The government in the price support policy (Minimum Support Price) aimed at providing a safety net or insurance to farmers against a sharp fall in farm gate prices. Further, necessity was felt to provide remunerative prices to farmers for maintaining food security and increase farm incomes. These policies had a positive effect on farm income and led to an economic transformation, particularly in well endowed, mainly irrigated, regions. (Arora, 2013).

- **Agricultural Trade policy**

India's share in international trade remains as small as about 1.5 percent in spite of having a comparative advantage in the production of many agro-food products. These trade policies on agriculture were designed to pursue food self-sufficiency and promotion of exports of the so-called 'commercial crops' (Arora, 2013).

- **Food Security Bill 2013**

Lok Sabha in August 2013 passed the Food Security Bill, 2013. It provided right to the people to receive an adequate quantity of food grain at an affordable price. The specialty of the bill was to look at the needs of poorest of the poor, women and children. Some of the aspects of the Bill are:

- Coverage of two-thirds population to get highly subsidized food grains.
- Poorest of the poor continue to get 35 kg food grains per household per month at a subsidized price.
- Special focus on nutritional support to women and children etc. (Arora, 2013).

III. MATERIALS AND METHODS

3.1 Research Design

A survey can be used to deduce the attitude of the consumer towards the purchase of eco-friendly agricultural products and their view on the role of the government in improving current conditions. In the present paper, the research study is exploratory cum conclusive.

3.2 Sampling

The Sampling technique is demarcated as a practice in which the researcher selects the required sample depending on the study area to obtain more accuracy in the data. Sampling techniques may be of two types such as Probability sampling and Non-probability sampling.

In the present study, the sampling technique will be based on Stratified Random Sampling where the samples are collected from the Union Territory of Jammu & Kashmir. The two major districts from each division of the Union Territory of Jammu and Kashmir

are taken. The Consumers, as well as stakeholders, are taken for data collection. The survey was carried out via an online portal (Survey Monkey) among 200 regular consumers of eco-friendly agro-products. The views on factors affecting regulatory norms are obtained using a qualitative questionnaire provided to employees of retail shops that market green agro-products. The sample taken is 5 employees to conduct the study.

3.3 Data Sources

Collection of data refers to a purpose gathering of information and relevant to the subject-matter of the study from the units under investigation. The method of collection of data mainly depends upon the nature, purpose and the scope of inquiry on the one hand and availability of resources, and the time to the other. In the present study, data is gathered both from Primary as well as Secondary sources for analysis.

Primary Data Source

The primary data was collected through the distribution of well-structured questionnaires among the respondents to perform the survey for quantitative research and further supported by interviews and observation methods.

Secondary Data Source

Secondary data implies second-hand information which is already collected and recorded by any person other than the user for a purpose, not relating to the current research problem. Secondary data offer several advantages as it is easily available, saves time and cost of the researcher. In the paper, the secondary data wherever required was taken from concerned books, journals or websites of other government agencies.

3.4 Study Area

Two districts from all the two divisions of the Union Territory of Jammu and Kashmir are taken. Presence of agriculture as a means of subsistence and economy is vivid among the chosen districts. All the three divisions are taken as divisions are geographically different regarding agriculture.

3.5 Research Tools

In the present study, the data collected to deduce the attitude of the consumer towards the purchase of eco-friendly agricultural products and their view on the role of the government in improving current conditions was

assessed by using the Statistical Packages for Social Sciences (SPSS) software by the Factor Analysis method.

3.6 Data Analysis

Thematic analysis

In this form of analysis, interview sessions with the stakeholders are conducted, and opinions regarding consumer behavior towards purchasing the eco-friendly agricultural products in Jammu & Kashmir are gathered. Further, the results of the transcripts have been analyzed in this section of the study using the thematic analysis method to verify whether the objectives of the study are covered or not. Certain themes have been prepared which are again subdivided into sub-themes to achieve the objectives of the research.

Statistical analysis

Statistical data analysis is a technique to perform different statistical operations. It is a type of quantitative research that strives to quantify the data and apply it topically to conduct some statistical analysis. Quantitative data involved descriptive data like survey data and observational data. The analysis of data in statistics usually involved some form of statistical tools that a layman cannot perform without knowing statistics. In the present study, the data collected is tabulated and analyzed by using SPSS software for deducing results.

IV. RESULTS AND DISCUSSION

In this section, the quantitative questionnaire collected from 200 regular consumers of eco-friendly agro-products from any two districts of the Union Territory of J&K has been tabulated and analyzed to identify the attitude of the consumer towards the purchase of eco-friendly agricultural products and their view on the role of the government in improving current conditions. Also, the qualitative data obtained from the interviews with stakeholders which are analyzed. It is noted that the results obtained from both the quantitative and qualitative analysis are in sync with each other.

The demographic profile of the respondents is presented in the form of pie charts and frequency tabular format to provide an understanding on the attitude of consumers towards the purchase of eco-friendly agricultural products and their view on the role of the government in improving current conditions and the influences of demographic variables like age, gender, education etc. that will influence their buying behavior and level of satisfaction.

According to the results, a Reliability test was conducted with the SPSS software to measure the internal consistency, i.e. reliability of the measuring instrument (Questionnaire). Therefore, the results indicated that all the Cronbach Alpha values appeared to be higher mostly > 0.70 or higher to have a high relative internal consistency among the variables like consumer awareness and decision-making in purchasing and using eco-friendly agricultural products and are therefore acceptable.

Variables	Cronbach Alpha Value
Consumer behavior towards eco Friendly products	0.815
Consumer decision in purchasing Eco friendly Products	0.829
Consumer awareness for eco friendly agricultural products	0.690

Table 1: Reliability Statistics

The Questionnaire forms were received through primary data collection approach, and that was further loaded to the SPSS software for initial analysis. Overall there were 15 criteria which were having an impact on the attitude of the consumer towards the purchase of eco-friendly agricultural products and their view on the role of the government in improving current conditions. However, to come out with a Discriminant Analysis output with all 15 Criterion would be a lengthy process. Therefore, to counter the same, the Factor Analysis was used for data reduction. For data reduction feedbacks were taken from the stakeholders and other officials etc.

Factor analysis was applied for the identification of the core factors affecting the attitude and perception of the customers towards eco-friendly products. This analysis applies to reduce a large number of variables into a few numbers of core factors. The KMO and Bartlett's test is conducted here to measure the sample adequacy that varies between 0 and 1. The resultant values which are closer to 1 are better than 0.6 which is the suggested minimum value. The Bartlett's Test of Sphericity is the test for the null hypothesis that the correlation matrix has an identity matrix. Taking this into consideration, these tests provide the minimum standard to proceed for Factor Analysis.

Table 2: KMO and Bartlett's Test

KMO measure of sampling adequacy		0.816
Bartlett's test of sphericity	Approx. Chi Square	330.439
	df	10
	Sig.	.000

Normally, $0 < KMO < 1$

If $KMO > 0.5$, the sample is adequate.

Here, $KMO = 0.816$ which indicates that the sample is adequate and we may proceed with the Factor Analysis.

Bartlett's test of Sphericity

Taking a 95% level of Significance, $\alpha = 0.05$

The p-value (Sig.) of $.000 < 0.05$, therefore the Factor Analysis is valid

As $p < \alpha$, we, therefore, reject the null hypothesis H_0 and accept the alternate hypothesis (H_1) that there may be a statistically significant interrelationship between variable.

The Kaiser-Meyer Olkin (KMO) and Bartlett's Test measure of sampling adequacy were used to examine the appropriateness of Factor Analysis. The approximate of Chi-square is 330.439 with 10 degrees of freedom, which is significant at 0.05 Level of significance. The KMO statistic of 0.816 is also large (> 0.5). Hence Factor Analysis is considered as an appropriate technique for further analysis of the data.

Further, the factor analysis has thus identified three core factors that affect the purchase intention of the consumer towards eco-friendly products. The obtained factors can be categorized under:

- Consumer behavior towards eco-friendly products
- Consumer decision in purchasing eco-friendly products
- Consumer awareness of eco-friendly agricultural products

The discussion based on the obtained results elaborated the entire study conducted. The prime focus of this study is to understand the consumer behavior purchase intention of consumers of J&K agricultural sector by interviewing the stakeholders. It will further study their view the role and responsibilities played by the government in improvising the present agricultural scenario of the country.

As per the results obtained through detailed surveying of quantitative questionnaire among the consumer respondents it was found that certain demographic variables like education, social status, income etc. of the individuals affect the purchase behavior and intention of the consumers. The statistical data provided interpreted that out of the total 200 respondents majority were male (54 percent) and having a good educational background with a master's degree (46 percent). The results obtained by plotting the frequency tables suggested that most of the respondents came to know about eco-friendly products from their friends who are 26 percent and they usually tend to purchase such products as per their requirements which are 46 percent and are found to be common food products (54 percent). The respondents surveyed mostly preferred to purchase their required eco-friendly agricultural products from retail malls (36 percent). It was found that majority of the respondents of around 53 percent has a normal satisfactory level on their purchase of such products.

As per the Census (2010-11) shows that out of an estimated 118.7 million cultivators, 30.3 percent were females. Agriculture was suggested to be the backbone of the Indian economy as per the studies of Unger, 2015. The role of agriculture was significant as it was crucial for the demand and supply links with the manufacturing sector.

Further, the analysis revealed that a high level of internal consistency concerning the variables that govern the consumers buying behavior towards eco-friendly products. As per the studies conducted by Bojkovska et al.(2013), it was indicated that the buying behavior of the consumers was mostly dependent on their needs and moods and therefore on such basis, they will take proper and necessary decisions whether to purchase the product or not. Based on the KMO and Bartlett's test the p-value (Sig.) of $.000 < 0.05$ was obtained which proved that the Factor Analysis is valid. Further, from this result, it is discussed that the null hypothesis which suggested that there is no significant relationship between consumer behavior and the purchase of eco-friendly agricultural products is rejected, which accepted that there is a strong relation that existed between the consumer perception and buying behavior and their purchase of eco-friendly commodities in the market.

Customer satisfaction is an important factor that deliberately played a major role in purchasing such eco-friendly products from the markets. As per the analysis majority of the customers were found to be satisfied with their choice of product purchase. The studies by Ahlen and Hamas, (2017) suggested that the increasing challenges like ozone layer destruction, global warming, biodiversity loss, natural disasters like floods, earthquakes etc. and the recent economic crisis worldwide have generated a concern towards a better production of environmentally friendly products in the countries and the customers availing them by keeping those concerns in mind.

V. CONCLUSIONS

The current research was supported to develop an understanding on the available literature that was reviewed to get a clearer insight on the consumer's attitude and their perception of eco-friendly agricultural products in the Union Territory of Jammu and Kashmir about how their buying patterns and other investments made on the purchase of products are inclined by different green marketing approaches in the context to the online retail sector in a less urban region of India. Though a recent shift towards availing eco products has converted into a widely researched area, it has only gained quality in India in the recent past.

The noteworthy findings of the research coordinated as well as to some extent contrasted with the literature that had been reviewed previously, while the larger significant addition to the findings was about the factors controlling the key socio-demographic aspects of the consumers in India. Other key factors like the impact of investment on the purchase, awareness about eco-friendly products, and consumer behavior towards the consumption of organic foods are some of the aspects that affected the decision making and buying behavior of the consumers. As per the literature, it can be summarized that demographic variables shaped our lifestyles and designed to benefit the surrounding ecology (Sehgal and Singh, 2010).

Apart from this, the Reliability and Frequency Analysis test results suggested that a high level of internal consistency was obtained for the variables which reflected high reliability of the variables based on the consumers' behavior and their attitude towards the purchase of eco-friendly products for the provided questionnaire. Further, from the literature, it was suggested that some of the consumers wanted more information on health and environmental issues on the food products they purchase which may have an indirect impact on their purchase behavior.

Further, an investigation with a larger sample size would shed more unique understandings in regards to these findings from the present analysis.

REFERENCES

- [1]. Arora, V. P. S. (2013). Agricultural policies in India: Retrospect and prospect. *Agricultural Economics Research Review*, 26(2), 135-157.
- [2]. Bojkovska, K., Josevska, E., Jankulovski, N., & Mihajlovski, G. (2014). THE IMPORTANCE OF FACTORS THAT INFLUENCE ON CONSUMER PURCHASING DECISIONS OF FOOD PRODUCTS. *Journal of Hygienic Engineering and Design*, 9, 73-79.
- [3]. Chatterjee, S., & Kapur, D. (2016). Understanding Price Variation in Agricultural Commodities in India: MSP, Government Procurement, and Agriculture Markets.
- [4]. Cook, C., Hamerschlag, K., & Klein, K. (2016). Farming for the future: Organic and agro ecological solutions to feed the world. *Friends of the Earth*. (June 2016). http://webivadownton.s3.amazonaws.com/877/05/5/8492/2/FOE_Farming_for_the_Future_Final.Pdf.
- [5]. Dubey, R. K., & Shukla, N. (2014). Organic farming: an eco-friendly technology and its importance and opportunities for sustainable development. *Int J Innov Res SciEng Tech*, 3, 10726-10734.
- [6]. EEA (2006), Sustainable Development: Policy and guide for EEA and the Norwegian Financial Mechanism.
- [7]. Hoda, A., & Gulati, A. (2013). India's agricultural trade policy and sustainable development. *ICTSD Issue Paper*, 49.
- [8]. HLPE, 2016. Sustainable Agricultural Development for food security and nutrition: What roles for livestock? A Report by the High Level Panel of Expert on Food Security and Nutrition of the committee on world Food Security. Rome.
- [9]. Kallel, A., Ksibi, M., Dhia, H. B., & Khélifi, N. (Eds.). (2017). Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions: Proceedings of Euro-Mediterranean Conference for Environmental Integration (EMCEI-1), Tunisia 2017. Springer.
- [10]. King, B. S., Tietyen, J. L., & Vickner, S. S. (2000). Food and Agriculture: Consumer Trends and Opportunities—Vegetables.
- [11]. Mc Conell, Campbell et.al (2002), Economics Principles, problems and policies, New york: Mc Graw Hill Irwin.
- [12]. Narayan, B. S. (2012). Sustainable agricultural development and organic farming in India.
- [13]. Organised Agri-Food Retailing In India, J. (2011). NABARD. *Mumbai, India*.
- [14]. Prasad, B., Tapsall, P., & Simla, N. (2014). Global practices in promoting environmental sustainability: A roadmap for Indian retail. *India: WWF-India*.
- [15]. Rao, N. M. (2013). FDI in multi-brand retailing-challenges and opportunities. *International Business Management*, 15611-15617.
- [16]. Sehgal, P., & Singh, N. (2010). Impact of Eco-Friendly Products on Consumer Behavior. *CBS E-Journal, Biz n Bytes*, 6.
- [17]. Serageldin, Ismail et.al (editor) (1994), Making Development Sustainable: from Concepts to Action. Environmentally Sustainable Development Occasional Paper Series No.2. Washington DC. The world Bank.
- [18]. Unger, (2015). Agro ecology: India's Journey to Agricultural Prosperity The evidence and path forward through agro ecology.
- [19]. Uzaik, jacek&Corencowicz, Edmund (2017). Sustainable Agriculture- Developing Countries perspective.389-394. 10.24326/fmpmsa.2017.70.
- [20]. <https://www.entrepreneur.com/article/287111>