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Understanding consumer buying behavior for premium fresh foods and its relation to producers' income enhancement

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Abstract

The purpose of this paper is to develop a marketing strategy for premium fresh foods based on consumer buying behavior and preferences. This study aims to find out how much premium consumers are willing to pay for premium fresh foods. Simple socio-demographic representation and some statistical analysis such as cluster analysis, choice-based experiment, and perceptual mapping were used to study the consumers' preferences, perceptions, and attitudes towards premium fresh foods. These consumers are in a relatively advantageous position in terms of purchasing power and awareness of health and nutrition. The topic is relatively less researched in emerging markets especially where organized retail is still in its early stages. As the consumers are spending more towards healthy, organic, and natural food products and are willing to pay a premium price, it becomes an enticing opportunity for innovators and new startup companies to enter into this segment. In recent times due to the pandemic, consumer buying behavior has moved towards high nutritional value and healthy products. This is the opportunity for innovators and agripreneurs to think of premium fresh foods.

Keywords: food quality, food safety, agribusiness, agricultural marketing, agri-food, agricultural supply chain

Introduction

This paper describes the consumer buying behavior and willingness to pay is very useful in determining the style, form, brand, etc. of the product. The most important thing is to forecast where customers are moving and be in front of them. The processes a consumer uses to make purchase decisions, as well as to use and dispose of purchased goods or services; also includes factors that influence purchase decisions and product use. The factors which influence consumer behavior are cultural, social, personal, and psychological factors.

“Premium product segments outpacing total category sales in many markets” shows that consumer's aspirations and priorities are shifting. Indeed, the middle class is rising globally (2 billion people more by 2030 resulting in a 35% increase in food demand) and drives significant growth of the average purchasing power. Naturally, they are seeking a better quality of life and want to instill meaning into their purchase decisions, either it's committing to a more environmental-friendly lifestyle, benefiting from healthier products, promoting socially responsible brands, or stating other personal values or motives.

The worldwide trend showed that customers are aware of the term Premium price and brands that offer such premium products. Naturally, societal stratification is steadily vanishing in today's days and nights. Due to the fact Premium products would be the symbol connected with good tastes as well as the factor of social upheaval and personality there isn't hesitation the reason every person desires to have such products (Streletskaya *et al.* 2020) ^[13]. With nutrition issues increasingly occupying the headlines in India, the need for innovative and multi-sectoral action is greater than ever. According to the 2016 United Nations World Cities Report, India will have 7 megacities by 2030. Urbanization puts pressure on food systems, threatens food security, and adds to nutrition challenges. Thus, increasing the access and affordability of food products is and will remain a top priority for India (*FINANCIAL EXPRESS*. (2019, August 30) The health and wellness food market size has the potential to grow by USD 235.94 million during 2020-2024, and the market's growth momentum will accelerate during the forecast period because of the steady increase in year-over-year growth.

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Theoretical Framework

A. Consumer Buying Behavior

Consumer buying behavior refers to the actions taken (both on and offline) by a consumer before buying a product or service. This process may include consulting search engines, engaging with social media posts, or a variety of other actions. It is valuable for businesses to understand this process because it helps businesses better tailor their marketing initiatives to the marketing efforts that have successfully influenced consumers to buy in the past.

A variety of factors go into the consumer buying behavior process, but here we offer just a few. Taking separately, they may not result in a purchase. When put together in any number of combinations, the likelihood increases that someone will connect with a brand and make a purchase. The major factors that influence consumer buying behavior are cultural, social, personal, and psychological factors.

B. Willingness to pay

Willingness to pay is the amount of money that an individual is willing to sacrifice to acquire a product or service. The willingness to pay function establishes the price, that an individual is willing to pay for a given level of quality at given prices, income, and preferences for premium fresh food products. WTP varies based on several factors but is one of the best ways to conceptualize overall demand at any given time. Due to this variability, WTP is typically expressed as an aggregate number with a corresponding range of upper and lower limits.

C. Producers income enhancement

Income enhancement is the increase in revenue that is achieved by raising the amount of taxes that individuals and corporations remit to the government.

Research Methodology

In this study, to better understand the urban consumption of premium fresh food items, a survey method was used to collect the primary information with the help of a structured questionnaire. Specific questions on the premium fresh food products were asked and the responses were evaluated to gauge consumer buying behavior and willingness to pay towards premium fresh foods. The survey was targeted at premium food consumers in some plush localities of Raipur city. Respondents were personally interviewed and some via email. A total of 100 consumers responded to the study.

The questionnaire was divided into two sections; the first section included questions on socio-demographic factors. In the second section, the questions focused on consumers buying behavior and willingness to pay for premium fresh food items.

Sample Description

A total of 100 respondents were selected for the study. Questionnaires were given to 100 randomly selected respondents and some via email in few areas of Raipur city. The criterion for participation was a consumer of premium foods between the age group of 20 to 60 years old and fully or partially in charge of the purchases of premium foods.

Data Analysis and Results

The first table shows the demographic representation of the survey which consists of gender, age, average monthly income, level of education, and frequency of buying premium

food all explanations are given below.

Table 1 shows the structure of the sample in which the first row represents that 58 respondents are female and 42 were male. The second row represents the age of respondents in which maximum respondents belonged to the age group between 26-40 years, 40 respondents belonged to the young age group which is 15-25 years, and 12 respondents belonged to the 41-60 years age group. The third row represents the level of education majority of respondents were graduates, 33 respondents were post-graduated, 9 respondents were secondary school passed the rest 4 respondents were Ph.D. graduates and were aware of premium fresh foods. Fourth row shows the average monthly income of respondents 30 respondents earn 40,000-49,000Rs., 27 respondents earn 50,000 and above, 25 respondents earn between 30,000-39,000 Rs. and rest 18 respondents average monthly income is 20,000-29,000Rs. The last row shows the frequency of buying premium foods 39 respondents buy premium foods at least once a week whereas 20% of respondents were buying premium products few times a year and 19% of respondents buy premium food products every day. 14% of the respondents buy 1-3 times a month and the rest 8% of respondents were not interested in buying premium food products.

Table 1: Structure of Sample

		Demographic	Data Collected
1	Gender	Male	42
		Female	58
		Total	100
2	Age	15-25 year	40
		26-40 year	47
		41-60 year	12
		More than 60 year	1
		Total	100
3	Level of Education	Primary School	-
		Secondary School	9
		Graduation	54
		Post Graduation	33
		PhD	4
		Total	100
4	Average Monthly Income	20,000-29,000	18
		30,000-39,000	25
		40,000-49,000	30
		50,000 And Above	27
		Total	100
5	Frequency Of Buy Premium Foods	Every Day	19
		At Least Once A Week	39
		1-3 Times A Month	14
		Few Times A Year	20
		Never	8
		Total	100

Frequency of Buying Premium Food Products

Fig.1 shows consumer prefers to buy imported fruits as compared to locally grown fruits. 58.49% of respondents prefer to buy imported fruits and the rest 41.51% consumers like to buy locally grown fruits. Apple and Dragon fruit were the most preferred fruit which is followed by kiwi and avocado.

According to the data compiled Fig.2 consumer mostly prefers to buy locally grown vegetables as compared to imported variety. 56.61% respondents give preference to locally grown vegetables whereas; the rest 43.39% consumer prefers to buy imported vegetables.

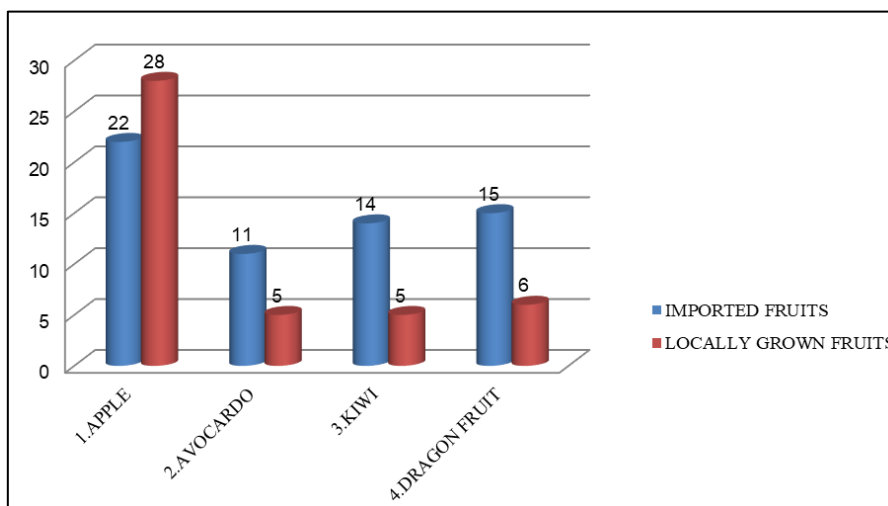


Fig 1: Frequency of buying premium fruits

The data compiled in Table-2 shows the source of buying premium foods in which 37% of respondents bought the premium products At the market followed by 27% from supermarkets whereas, the other 20% respondents buy the premium products from stores specialized for selling premium food products. 13% of respondents buy premium products over the internet and the rest 3% buy directly from the producer.

Table 2: Source of Buying Premium Foods

	Sources	No. of Respondents
1	In Supermarkets	27
2	In Stores Specialized For Selling Premium Food	20
3	At The Markets	37
4	Directly From The Producer	3
5	Over The Internet	13
	Total	100

Table-3 shows that the source of communication is mostly by their friends and family members which is 49% whereas internet portals or specialized websites covers 30% and 14% of respondents get the information from television and radio commercials and the rest 7% of respondents get the information from the magazine and newspaper.

Table 3: Source of Information

	Sources	No. of Respondents
1	Friends And Family Members	49
2	Tv And Radio Commercials	14
3	Internet Portals Or Specialized Websites	30
4	Magazines And News Paper	7
5	Others	-
	Total	100

Statistical Analysis
Cluster Analysis

Cluster analysis is a multivariate procedure ideally suited to segment sampled population in marketing research. This is because a cluster, by definition, is a group of similar objects. And segmentation involves an identifying group of target customers who are similar in buying habits, demographic

characteristics. There could be clusters of brands for instance, which are similar to each other and different from other clusters.

For this study, hierarchical analysis and k-means cluster analysis methods were used to analyze the data with the help of IBM SPSS version 28.0.

For Premium Imported Fruits and vegetables: Based on the analysis, the two clusters can be characterized as follows; in cluster 1 people are more focused on the price and nutritional value of the product and they are also concern with the country origin of the product. cluster 2 These are value customers, who are looking to derive maximum benefit from a product such as, impact on health, organically grown with good storability of product and these customers also want good taste and appearance.

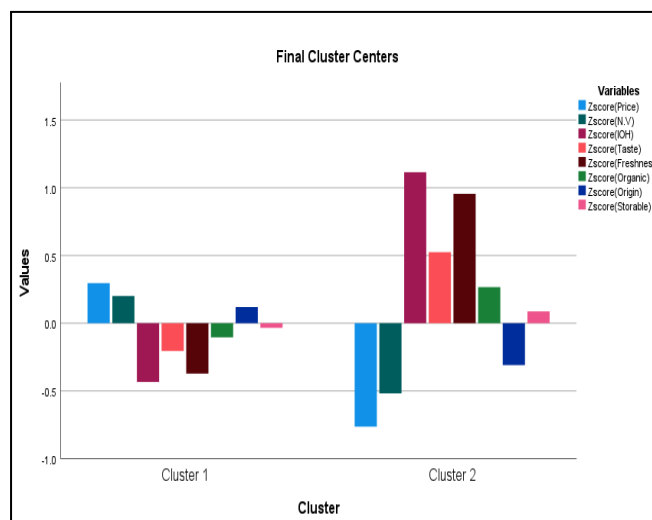


Fig 3: Cluster analysis of imported premium fruits and vegetables

For Premium locally grown Fruits and vegetables: Based on the study there are two clusters of respondents. Cluster 1 consists of people who give more importance to produce organically grown, country origin, price, storable and nutritional value. Cluster 2 consists of people who give more importance to a product which is related to taste, impact on health, and appearance.

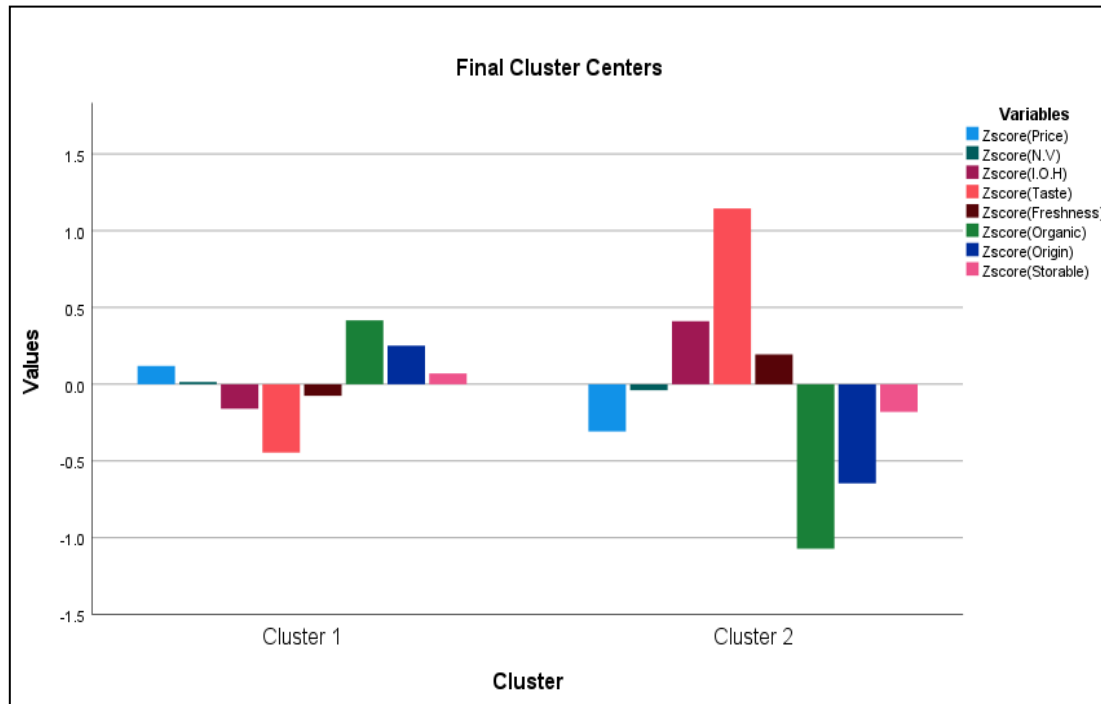


Fig 4: Cluster analysis of locally grown premium fruits and vegetables

Choice-Based Experiment

Choice experiment analysis is a technique for analyzing consumer utility levels for specific product attributes. A discrete choice experiment (DCE) is a quantitative technique for eliciting individual preferences. It allows researchers to uncover how an individual’s value selected attributes of a product or service by asking them to state their choice over different hypothetical alternatives.

Within the orthogonal experimental design, respondents were asked to rate 20 choice combinations. Each choice combination consisted of five variables with two levels. Respondents were then requested to indicate what alternatives, given the choice combinations, they prefer. Within the choice combinations, respondents compared product profiles that vary across attributes.

The alternatives that were included in the choice experiment were product profiles composited of five attributes, varying across attribute levels. The following attributes with specified attribute levels are selected:

Table 4: Attributes and their levels

Attribute	Levels
Variety	1. Imported variety 2. Locally grown
Nutritional Value	1. High 2. Low
Appearance	1. Good 2. Ordinary
Price	1. High price 2. Low price

These attribute levels combine up to 16 (2x2x2x2) different alternatives, however, respondents were able to evaluate all these alternatives. An experimental design is used to reduce the number of alternatives that are presented to the respondents. An orthogonal design was performed to reduce the number of profiles that were included in the choice experiment. Variety, nutritional value, appearance and price for the product were the attributes selected for the experiment.

Input Data Interpretation

Respondents were asked to rank the 20 products profiles from the most to the least preferred. The variables PREF1 through PREF20 contain the IDs of the associated product profiles.

Output Data Interpretation

Table 5: Overall statistics

Utilities		Utility Estimate	Std. Error
Variety	Imported	.406	.148
	Locally Grown	-.406	.148
Nutritional Value	High	-.214	.295
	Low	-.427	.591
Appearance	Good	-.865	.295
	Ordinary	-1.729	.591
Price	High	1.286	.295
	Low	2.573	.591
(Constant)		8.188	.781

Table 5 shows the utility (part-worth) scores and their standard errors for the level of each factor. Higher utility values indicate greater preferences. As expected there was an inverse relationship between the Appearance, Nutritional Value, Locally grown variety, and utility, with ordinary appearance and low price utility.

Since the utilities were all expressed in a common unit, they could be added together to give the total utility of the most preferred combination. In the present study, the most preferred choice combination based on the highest utility derived was as follows:

The total utility of most preferred choices was for imported variety, high nutritional value, good appearance; low price came out to be 10.088.

$$\text{Utility (Imported variety)} + \text{Utility (High Nutritional value)} + \text{Utility (Good Appearance)} + \text{Utility (Low Price)} + \text{Constant} = 0.406 + (-0.214) + (-0.865) + 2.573 + 8.188 = 10.088$$

The data compiled from the above table shows that there is an

inverse relationship between appearance followed by nutritional value and locally grown variety. Whereas, the price and imported variety corresponds to higher utility, as anticipated.

The range of utility values (highest to lowest) for each factor provides a measure of how important the factor was to overall preference. Factors with great utility ranges play a more significant role than those with smaller ranges.

Table 6: Correlations

Correlations		
	Value	Sig.
Pearson's R	.874	<.001
Kendall's tau	.695	<.001
Kendall's tau for Holdouts	.000	.500

Table-6 represents the Pearson's R-value for the choice experiment performed. A value of 0.874 indicates the fair goodness of fit of the tool for the choice experiment.

Table 7: Averaged Importance Score

Importance Values	
Price	33.957
Variety	23.690
Nutritional Value	22.921
Appearance	19.432

This table provides a measure of the relative importance of each factor, known as an importance score or value. The values were computed by taking the utility range for each factor separately and dividing by the sum of the utility ranges for all factors. The values thus represent percentages and have the property that they sum to 100. As evident from the table:7, the most important factor in terms of utility derived was price followed by variety and nutritional value for premium fruits and vegetables.

Table 8: Your Experience Have Premium Products Behaved Better Than the Non-Premium Category Products

		No. of Respondents
1	Strongly Agree	19
2	Agree	34
3	Neutral	34
4	Disagree	9
5	Strongly Disagree	4
	Total	100

Producer Income Enhancement: Based on the findings it is evident that as opposed to the preconceived notion about organic and premium food products being perceived as healthy and readiness to buy at a premium, the consumers would like to buy imported and premium food products at an affordable price while health concerns being the last in buying behavior. The following could be some strategies the startup entrepreneurs could follow to tap the above emotion:

- **Certificated Products-** Availing necessary quality tests for the fruits being offered related to nutritional benefits, health benefits, etc.
- **Digital methods-** Digitized ways of selling like through mobile applications with good backend service and maintaining customer satisfaction.
- **Digital marketing-** marketing of premium products through social media platforms like Facebook, Instagram with options with the option to place immediate orders.

- **Pricing scheme-** allowing bundle pricing, discount on new orders, online payments gateways, cash-on-delivery to keep the product pocket-friendly and flexible.
- **Reaching through local vendors-** Vendors which can penetrate the most plausible customers in target neighborhoods.

Discussion

Consumer characteristics like education and income positively influence willingness to pay a price premium for fresh fruits and vegetables. Graduates and postgraduates perceive the health and nutritional benefits of fresh foods and are willing to pay a higher price. With an increase in income, the ability and willingness to spend more also increase. The consumer or buyer behavior is extremely important for target consumers' individual and group reactions that manifest in the buying patterns. "Buyer behavior is all psychological, social and physical behavior of potential customers as they become aware of evaluate, purchase, consume and tell other people about products and services. The Indian organic food market stood at a value of USD 849.5 million in 2020. The market is further expected to grow at a CAGR of about 20.5% in the forecast period of 2021 and 2026 to reach a value of about USD 2601 million by 2026 (*India Organic Food Market*). With nutrition issues increasingly occupying the headlines in India, the need for innovative and multi-sectoral action is greater than ever. According to the 2016 United Nations World Cities Report, India will have 7 megacities by 2030. Urbanization puts pressure on food systems, threatens food security, and adds to nutrition challenges. Thus, increasing the access and affordability of food products is and will remain a top priority for India (FINANCIAL EXPRESS. (2019, August 30). The retail value of the naturally healthy food market in India amounted to approximately 3.8 billion U.S. dollars in 2018. This was forecast to reach nearly 8.5 billion dollars by 2023. This category accounted for the highest retail market value within the Indian health and wellness sector during the measured period (Retail market value of naturally healthy food in India 2014-2023, 2021).

Summary

The study of consumer buying behavior and willingness to pay is very useful in determining the form, style, brand, etc. of the product. Consumers' WTP for premium fresh food is evidenced by many motivating factors such as nutritional value, impact on health, quality, and others. Empirical results from the most significant premium food consumption countries showed that the main reason why premium fresh food is required is associated with health because of either disease suffering or disease prevention. The studies conducted in Raipur city demonstrated that consumers are concerned about nutritional value, impact on health, organically grown which are critical factors for premium food consumption. Price, taste, and quality attributes are also relevant factors. Furthermore, socio-demographic factors have been investigated as consumer buying behavior and WTP predictors for premium fresh foods. The result showed that 82% of respondents were willing to pay a premium for fresh fruits and 52% of respondents were willing to pay for fresh vegetables respectively. The aggregate percentage of those who were prepared to pay a 5% to 25% price premium, for fruits, it was 37.5% and for vegetables, 26.5% respectively. The data shows that consumer wants to give more premium price for fruits as compared to vegetables. When we talk

about choices the most preferred combination is imported variety with high nutritional value have good appearance and low price.

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