



*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*



## **Factors Influencing Consumers' Purchasing Behaviour on Exotic Vegetables in Coimbatore City**

**Velumani Palaniappan<sup>1\*</sup> and Balaji Radhakrishnan<sup>2</sup>**

<sup>1</sup>*Department of Agricultural and Rural Management, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, Pin-641003, India.*

<sup>2</sup>*Directorate of Agri Business Development, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, Pin-641003, India.*

### **Authors' contributions**

*This work was carried out in collaboration among both authors. Author VP designed the study, wrote the literature reviews, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author BR managed the manuscript and analyses of the study. Both authors read and approved the final manuscript.*

### **Article Information**

DOI: 10.9734/AJAEES/2020/v38i1230502

Editor(s):

(1) Dr. Philippos I. Karipidis, International Hellenic University, Greece.

Reviewers:

(1) Ahmad M. Zamil, Prince Sattam Bin Abdulaziz University, Saudi Arabia.

(2) Samridhi Tanwar, Maharshi Dayanand University, India.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/65063>

**Original Research Article**

**Received 25 October 2020**  
**Accepted 30 December 2020**  
**Published 31 December 2020**

### **ABSTRACT**

**Scope of the Study:** The purpose of this paper is to understand factors influencing consumer behavior in purchasing exotic vegetables in Coimbatore city.

**Design/Methodology/Approach:** A total of 125 respondents were personally surveyed with a well-constructed and pre-screened interview schedule. The sample constitutes both the female and male consumers those purchase exotic vegetables in markets and as well as organized retail stores like Reliance Fresh, SPAR, Nilgiris, Pazhamuthir Nilaiyam. These respondents are spread across the well-developed Coimbatore city. Simple statistical analyses such as descriptive analysis, factor analysis, and analysis of variance to assess the factor influencing consumers' purchasing of exotic vegetables were carried out.

**Findings:** Findings of the study indicate that the exotic vegetable purchase decision was majorly done by female consumers. The people of the age group of 21-30 years were highly interested in purchasing exotic vegetables. A higher level of education and higher income groups prefer exotic vegetables in their food habit. The result of the factor analysis of various attributes of exotic

\*Corresponding author: E-mail: [pvelumaniidp97@gmail.com](mailto:pvelumaniidp97@gmail.com);

vegetables indicated that 66.65% accounting for four factors that include value aspect, health-oriented, lifestyle & external information, and quality prospects of vegetables.

**Research Limitations:** It is limited to the data collected through the framed and closed-ended questionnaire. The study being a primary one, the accuracy and reliability of data depend upon the information provided by the respondents. The respondent's views and opinions may hold good for the time being and may vary in future

**Practical Implication:** The result of the respondents based on various socio-demographic profiles and product factors will help the farmers/retailers to understand the needs of consumers in the emerging market of exotic vegetables in a better way.

**Originality/Value:** The study topic is relatively less researched in terms of consumer perspectives and also it has a wide scope among consumers. It has emerging market growth, especially where organized retail stores and its still early stage.

**Keywords:** *Consumer purchase behavior; Exotic vegetables; Cronbach's alpha test; Pearson correlation test; Factor analysis; ANOVA; Coimbatore.*

## 1. INTRODUCTION

India's diverse climate ensures the availability of all varieties of fresh vegetables. It ranks second in vegetable production in the world, after China [1]. Globalization has brought in many changes in developing nations such as changing lifestyle and living standards with the introduction of big food chains which brings in international cuisines in the food habits, the food preferences have also been transformed especially among the young generation. People are gradually realizing the importance of exotic vegetables as a source of antioxidants, dietary fiber, and nutraceuticals that encouraging the rapid development of diverse exotic vegetables in the daily diet. The market for exotic vegetables is growing very fast throughout the world. India has vast potential to compete with the emerging domestic and export market of exotic vegetables. Exotic vegetables can bring profitability and a higher return from vegetable cultivation. The modern-day cuisines are exotic vegetables based which include Broccoli, Purple broccoli, Lettuce, Coloured capsicum, Brussels, Baby corn, Asparagus, Parsley, Leek, Cherry tomato, Celery, Thyme, Chinese cabbage, Red cabbage, Zucchini, etc. Based on current production trends in Tamil Nadu three major exotic vegetables i.e., Broccoli, Coloured capsicum, Lettuce were selected for this study. These exotic vegetables are fetching a higher price than our traditional vegetables in the market. This study is framed to understand consumer purchase behaviour towards exotic vegetables with the following objectives.

### 1.1 Objectives

- To identify the factors influencing the consumers' purchase of exotic vegetables.

- To analyze the significance of the socio-demographic profile of consumers affecting the purchase behavior of exotic vegetables.

### 1.2 Hypothesis of the Study

- H<sub>0</sub>** - The socio-demographic profile of consumers (gender, age, marital status, household size, education, occupation, monthly income) does not significantly influence the factors of exotic vegetables in purchase decisions.
- H<sub>A</sub>** - The socio-demographic profile of consumers (gender, age, marital status, household size, education, occupation, monthly income) significantly influences the factors of exotic vegetables in purchase decisions.

## 2. LITERATURE REVIEW

The literature on consumer behavior argues that the consumer perceives a product as a bundle of attributes like nutritional value, safety, quality, taste, price, value for money, and environmental impact. The buying decision or choices between the products largely depend on a combination of these attributes [2]. Empirical evidence argues that socio-demographic factors such as gender, age, educational status, and income play an important role in determining the food consumption pattern across the world graphic profile and differ in their importance ratings of vegetable product attributes [3]. The purchasing behavior of a consumer is influenced by cultural, social, personal, and psychological factors. Consumer behavior is part of human behavior. By examining past purchasing behavior, marketers can estimate how consumers might

behave when making purchasing decisions in the future.” [4]. Jabir Ali et al. [5]. Revealed that “vegetables and fruits are bought more frequently from the nearest market compared to grocery items. High consumer ratings on the freshness/cleanliness attribute of the product along with price and quality show that food retail needs to be adjusted according to their needs.” According to T. H. Al-Gahaifi et al [6]. “there are factors that influence consumer behavior when purchasing vegetables in the Republic of Yemen. Factors such as price, occasions, discontent, and time of purchase indicated a high level of influence, while factors such as habit, display, sorting, and the seller location suggested moderate influence, and word-mouth influence was low.” Istudor Nicolae et al [7]. Identified that “the consumer’s decision about the purchase of fruits and vegetables is made in the store and not prior to the purchasing decision. For this reason, the company’s marketing strategy of selling fruits and vegetables should focus on the instrument at the point of sale.” The proportion of income spent on vegetables decreases as level of income increases. The proportion of consumers preferring to purchase off-seasonal, processed, pesticide free and organically produced vegetable was high in HIG. Monthly income of family, credit facility/credit card facility, price, education, condition of store, appearance of produce, organic produce, service facility offered by shop and type of market were the factors that significantly affect purchase behaviour of vegetable consumers [8]. Sanjeev Kapoor & Niraj Kumar’s [9]. Study provides valuable characteristics of “consumers’ purchasing behavior in terms of different product choices and market attributes. The results show that, as an essential product, vegetables are purchased more often than fruits, and vegetable consumption is more evident from the average volumes of transactions. The mean value of respondents on various attributes of the product indicates that the consumers attach more importance on attributes of credibility (e.g., freshness, nutrition, medicinal value) than on attributes of search (size, color, and variety) and experience attributes (e.g., taste and odor). Apart from this, the study also discussed the consumers’ willingness to pay for graded and packaged fruit items.” According to Anitha [10], the lifestyle of consumer has an optimistic and significant impact on purchasing decisions. This study identified factors that influence the customer’s purchase decision in retail outlets. The variety, quality, sales promotions, service, value for money, and quality

services are factors that distinguish retail outlets. Among these, lifestyle was the most significant factor in the decision-making process. Therefore, the study concluded that Indian consumers are more conscious of lifestyle factors. Hemantkumar P. Bulsara et al. [11]. Conducted their study on consumer preference for fruits and vegetables, “to identify that gender plays a very important role in the purchase of fruits and vegetables in different cultural groups and focus groups.” Singh, Kanchan & Neeraj [12] concluded that “most of the respondents bought fresh vegetables rather than packaged vegetables. They also had a greater preference for buying vegetables at the local market rather than in supermarkets. Most of the respondents were aware of the nutritional benefits of vegetables. Freshness and price were the top two concerns that affected the purchase of fresh vegetables, while the total quality i.e., external appearance and aroma occupied the third place of preference. The other factors that had a lower level of concern include a place of purchase, brand point of sale, and place of origin, respectively.” According to Raaijmakers et al. [13], Cluster analysis revealed six homogeneous consumer clusters with different HRMO and fruit and vegetable consumption levels. Besides, these clusters show a different socio-demographic profile and differ in their importance ratings of fruit and vegetable product attributes. Herath US [14] pointed out that decisions are influenced by “price, health factors, vegetable quality, home garden, and situation. They prefer to buy vegetables produced organically and a variety of vegetables.”

### 3. LIMITATIONS OF THE STUDY

There are some limitations in the study on factors influencing consumers’ purchasing behavior on exotic vegetables in Coimbatore city.

- Samples are only collected in Coimbatore District, so they will not apply to other places.
- It is limited to the data collected through the framed and closed-ended questionnaire.
- The study is a primary one, the accuracy, and reliability of data depend upon the information provided by the respondents.
- The respondent’s views and opinions may hold good for the time being and may vary in the future.

## 4. DATA AND METHODS

### 4.1 Data Collection and Sample Design

Coimbatore city was willfully preferred as the study area because the peoples are moving towards modern lifestyle and changing their living standards with the introducing international cuisines in their food habits [15]. The growth of supermarkets and hypermarkets has led to an increase in the purchase of exotic vegetables in Coimbatore city. Convenience sampling was done and a total of 125 sample respondents are selected based on study convenience. Sample respondents were highly variegated as they comprised of several educational qualifications, family types, age group, income, etc. The sample constitutes both female and male consumers who purchase exotic vegetables in markets and as well as organized retail stores like Reliance Fresh, SPAR, Nilgiris, Pazhamuthir Nilaiyam. The study is considering 25 sample respondents from each category of the retail outlet were selected to receive a wholesome response covering the entire city.

### 4.2 Study Period

The length of the time of this study was one year, the reference year was 2019 – 2020 and the sample was gathered throughout the time of January and February 2020.

### 4.3 Data Collection Instrument

Primary Data was collected with a well-constructed and prescreened interview schedule was employed to fetch data from consumers. Particulars of primary data regarding the socio-demographic profile and factors affecting the purchase decision of consumers. In terms of socio-demographic profiles included gender, age, marital status, household size, education, occupation, and monthly income. Vegetable attributes in terms of Freshness & cleanliness, Good taste, Affordable price, Quantity of vegetables, Appearance/color, Shelf life, Odour intensity/smell, Increases wellness/Health consciousness, Contain good nutrients, Quick to prepare, Lifestyle/Modern food habit, Price of close substitute, Non-seasonal availability, and Reference group influence/Word of mouth in the purchase of exotic vegetables. Vegetable attributes are Likert-type scales to analyze the factors influencing their purchase of exotic vegetables in the market. (1- not at all important,

2- somewhat important, 3- important, 4- very important, 5- extremely important).

### 4.4 Data Analysis and Tools

Raw figures are inutile. So, collected data were digitized with help of statistical programs such as IBM Statistical Package for Social Sciences (SPSS) Statistics, version 22 to attain suitable recommendations and interpretations, those data must be transfigured into worthwhile inference. Descriptive research has been undertaken in this research work to make research effective and find the results of the research work successfully. Several techniques and tools which have been used for analysis were made intelligible below.

- Percentage Analysis
- Factor analysis
- Analysis of variance (ANOVA)

#### 4.4.1 Percentage analysis

The percentage analysis is mainly used to specify the number of respondents and also used to make a simple comparison of different groups wherever needed.

#### 4.4.2 Factor analysis

Factor analysis is considered to be a statistical approach used for analyzing interrelationships among a huge quantum of variables with help of IBM SPSS software. In order to reduce a large quantum of variables into a minimal number of factors, factor analysis was performed. It was used to know the factors which were influencing the purchase of exotic vegetables by the consumers. Several variables were found to be influencing the purchase of exotic vegetables.

#### 4.4.3 Analysis of variance (ANOVA)

In its simplest form, ANOVA provides a statistical test of whether or not the means of several groups are equal. Analysis of variance (ANOVA) was used to assess whether socio-demographic profiles play a significant role in factors influencing the purchase of exotic vegetables.

## 5. RESULTS AND DISCUSSION

### 5.1 Socio-Demographics of the Respondents

Table 1. Shows the socio-demographic profile of respondents. Out of the 125 respondents surveyed, 54.4% were female and 45.6% were male. The age composition of the sample

**Table 1. Classification of respondents according to their socio-demographic profile**

S. No	Variables	Categories	No. of respondents	Percentage
1	<b>Gender</b>	Female	68	54.4
		Male	57	45.6
		Total	125	100.0
2	<b>Age</b>	Below 20 years	3	2.4
		21–30 years	50	40.0
		31–40 years	42	33.6
		41-60 years	21	16.8
		Above 60 years	9	7.2
		Total	125	100.0
3	<b>Marital status</b>	Married	83	66.4
		Single	42	33.6
		Total	125	100.0
4	<b>Household size</b>	< 2 members	9	7.2
		3-5 members	92	73.6
		> 5 members	24	19.2
		Total	125	100.0
5	<b>Education</b>	Illiterate	1	0.8
		School-level	10	8.0
		Diploma	5	4.0
		Undergraduate	48	38.4
		Postgraduate	46	36.8
		Others	15	12.0
		Total	125	100.0
6	<b>Occupation</b>	Agriculture	5	4.0
		Govt. Employee	24	19.2
		Private Employee	56	44.8
		Business	22	17.6
		Retired Person	5	4.0
		Others	13	10.4
		Total	125	100.0
7	<b>Monthly income</b>	Below Rs.10000	6	4.8
		Rs.10001 to 20000	21	16.8
		Rs.20001 to 30000	38	30.4
		Above Rs.30,000	60	48.0
		Total	125	100.0

respondents indicated that the surveyed groups are matured enough to respond to various purchase-related questions. Out of the total surveyed consumers, 40.0% of respondents were in the age group of between 21-30 years followed by 31-40 years (33.6%). The marital status of respondents shows that most of them have married (66.4%). It is important to note that about 73.6% of the respondents have 3-5 members in their families who influence the purchase of exotic vegetables more. The education profile of the respondents shows that most of them have an undergraduate level (38.4%) followed by postgraduate (36.8%). Out of the total surveyed, the majority of the respondents (44.8%) are private employees. Sample of respondents falling between the

monthly income group above Rs.30,000 dominated, with a 48.0% share.

## 5.2 Cronbach's Alpha Test – Test for Reliability scale

### 5.2.1 Reliability measures

The reliability test was carried out by using IBM SPSS Statistics, version 22, and the test results are given below Table 2. The Cronbach's Alpha value of the product attributes is .831 which is more than the standard 0.7. Hence the reliability of the questions is proved i.e., data collected through the questionnaire is accommodated in a good manner [16].

### 5.3 Pearson Correlation Test – Validity Test

Pearson correlation value of 14 variables is given below Table 3. Pearson correlation value of the variable between 1 to 14 is more than 0.174 of critical value from r table at 5% level of significance. Hence it can be concluded that all variables in product attributes were valid [17].

### 5.4 Factors Influencing the Consumers' Purchase of Exotic Vegetables

Factor analysis has been used for analyzing the collected data. Factor analysis falls into a class of statistical techniques usually SPSS software has been used for testing the data. 14 variables were used for factor analysis. After the data was fed, Bartlett's test of sphericity was run along with KMO.

From Table 4. Kaiser-Meyer-Olkin Measure is an index that defines Sampling Adequacy. The KMO test value is .779 which is more than 0.5, can be considered acceptable and it is indicated that the sample is good enough for sampling.

Bartlett's Test of Sphericity helps a researcher to decide, whether the results of factor analysis are worth considering and whether we should continue analyzing the research work. The overall significance of correlation matrices is tested with Bartlett Test of Sphericity (Approx. chi-square = 750.117 and significant at  $< 0.001$ ) which shows that there is a high level of correlation between variables and it provided support for the validity of the factor analysis of the data set. Hence, all these three standards indicate that the data is suitable for factor analysis.

From Table 5, every variable is the communality initially is expected to share a 100% variance. Hence initially every item is having a value of 1.00 which means 100% variance is shared by each item. The extraction value is ranging from 0.506 to 0.916 which shows that the minimum variance share of an item after extraction is 50.6% and the maximum variance share of an item is 91.6%.

As per the criteria, factors having latent roots or Eigenvalues greater than 1 ( $>1$ ) are only considered significant. From Table 6, only four factors are having Eigenvalues exceeding one in our study which are 4.551, 1.922, 1.622, and 1.236 respectively. Total variance contributed by

the first component is 32.510, by the second component 13.730, by the third component 11.583, and by the fourth component 8.830. The percentage of the total variance is used as an index to determine how well the total factor solution accounts for. The present solution of the index accounts for 66.653% of the total variation of the data. It is a pretty good figure which we got from the analysis and we only lost 33.347% of the information contained in our study.

Table 7 shows that the Rotated Component Matrix, Principal components analysis is employed for extracting factors based on varimax rotation with Kaiser – normalization, four factors have emerged. Each factor was constituted of all those variables that have factor loadings greater than 0.5. The identified variables with each factor are named and represented in the following table.

From Table 8, Factor one is labelled as a valuable aspect as it is comprised of five factors as Affordable price, Price of Close Substitutes, Quantity of vegetables, Quick to prepare, and Appearance/Colour. Factor two is labeled as health-oriented as it consisted of Shelf life, Contain good Nutrients, Increases wellness/Health consciousness, and Odour intensity/Smell. While factor three is labeled as Lifestyle & External Information as it consisted of Reference group influence/Word of mouth, Lifestyle/Modern food habit, Non-seasonal availability. The fourth factor is labeled as Quality prospects of vegetables as it consisted of Good taste and Freshness & cleanliness. All four factors are important as they have items that were rated an important mean score of around four.

### 5.5 ANOVA for Socio-Demographic and Factor Influencing Purchase of Exotic Vegetables

The obtained results were analyzed with the use of the ANOVA test to find if there is a significant difference in the socio-demographic profile (gender, age, marital status, household size, education, occupation, monthly income) and the product attributes affecting the purchase of exotic vegetables.

#### 5.5.1 Gender

The result of ANOVA analysis in the Table 9 show that there was a significant difference in the factors influencing the purchase of exotic vegetables between male and female at 0.05

levels for odor intensity/smell  $P=0.024$ . On other hand there was no significant difference in the factors influencing purchase decisions for Freshness & cleanliness, Good taste, Affordable price, Quantity of vegetables, Appearance/color, Shelf life, Increases wellness/Health consciousness, Contain good nutrients, Quick to prepare, Lifestyle/Modern food habit, Price of close substitute, Non-seasonal availability, and Reference group influence/Word of mouth.

### 5.5.2 Age

The result in Table 9 suggests that there is a significant difference in consumer purchase decisions for different age groups at 0.01 levels for Appearance/color  $P=0.008$  and Price of close substitute  $P=0.006$ . And at 0.05 levels for Lifestyle/Modern food habit  $P=0.012$ . Other than that there is no significant difference in factors influencing purchase decisions between different age group respondents.

### 5.5.3 Marital status

The result of ANOVA analysis from Table 9 suggests that there was a significant difference

between factors affecting the purchase behavior of exotic vegetable consumers in different marital groups at 0.001 levels for Affordable price  $P=0.009$  and Appearance/color  $P=0.001$ . Significant at 0.05 levels for Good taste  $P=0.037$ , Quantity of vegetables  $P=0.041$  Price of close substitute  $P=0.021$ . On the other hand, the consumers of exotic vegetables in different marital groups have the same behavior for factors Freshness & cleanliness, Shelf life, Odour intensity/smell, Increases the wellness/Health consciousness, Contain good nutrients, Quick to prepare, Lifestyle/Modern food habit, Non-seasonal availability, and Reference group influence/Word of mouth.

### 5.5.4 Household size

The ANOVA result (Table 9) shows that there was a significant difference among different household members in factors affecting the purchase behavior of consumers at 0.001 levels for Affordable price  $P=0.008$  and Significant at 0.05 levels for Quantity of vegetable  $P=0.034$  and Contain good nutrients  $P=0.018$ . On other hand, there was no significant difference for the remaining factors.

**Table 2. Cronbach's alpha test**

Reliability statistics		
Cronbach's alpha	Cronbach's alpha based on standardized items	N of items
.831	.833	14

**Table 3. Pearson correlation test – validity test**

Pearson correlation test					
S. No		N	Pearson correlation	Sig. (2-tailed)	The critical value for the Pearson correlation coefficient (5%)
1.	Freshness& cleanliness	125	.438**	.000	0.174
2.	Good taste	125	.408**	.000	
3.	Affordable Price	125	.623**	.000	
4.	Quantity of vegetables	125	.644**	.000	
5.	Appearance/Colour	125	.670**	.000	
6.	Shelf life	125	.419**	.000	
7.	Odour intensity/Smell	125	.575**	.000	
8.	Increases the wellness/Health consciousness	125	.494**	.000	
9.	Contain good Nutrients	125	.543**	.000	
10.	Quick to prepare	125	.626**	.000	
11.	Lifestyle/Modern food habit	125	.551**	.000	
12.	Price of Close Substitute	125	.608**	.000	
13.	Nonseasonal availability	125	.757**	.000	
14.	Reference group influence/Word of mouth	125	.471**	.000	

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



**Table 4. KMO and Bartlett's test**

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.707
Bartlett's Test of Sphericity	Approx. Chi-Square	750.117
	df	91
	Sig.	< 0.001

**Table 5. Communalities**

<b>Communalities</b>		
	<b>Initial</b>	<b>Extraction</b>
Freshness& cleanliness	1.000	.907
Good taste	1.000	.916
Affordable Price	1.000	.692
Quantity of vegetables	1.000	.633
Appearance/Colour	1.000	.571
Shelf life	1.000	.633
Odour intensity/Smell	1.000	.598
Increases the wellness/Health consciousness	1.000	.669
Contain good Nutrients	1.000	.633
Quick to prepare	1.000	.653
Lifestyle/Modern food habit	1.000	.506
Price of Close Substitute	1.000	.715
Nonseasonal availability	1.000	.691
Reference group influence/Word of mouth	1.000	.515

*Extraction method: Principal component analysis*

**Table 6. Total variance explained**

<b>Rotated component matrix</b>				
	<b>Component</b>			
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Affordable price	.770			
Price of close substitutes	.767			
Quantity of vegetables	.729			
Quick to prepare	.668			
Appearance/Colour	.555			
Shelf life		.794		
Contain good nutrients		.732		
Increases the wellness/Health consciousness		.678		
Odor intensity/Smell		.531		
Reference group influence/Word of mouth			.661	
Lifestyle/Modern food habit			.648	
Non-seasonal availability			.622	
Good taste				.950
Freshness & cleanliness				.934

*Extraction Method: Principal component analysis. Rotation method: Varimax with Kaiser normalization*

*a. rotation converged in 16 iterations; Total Variance Explained*

### 5.5.5 Education

The significance of the effects of the individual factors on consumers' purchase behavior of educational groups was analyzed through the

ANOVA test and the results are shown in Table 9. The result suggests that there is a significant difference in individual factors for different educational groups at 0.05 levels for Increases the wellness/Health consciousness  $P=0.027$ .

### 5.5.6 Occupation

The result of ANOVA analysis revealed that there was a significant difference in factors affecting the purchase decision among different occupation level consumers at 0.05 levels for Lifestyle/Modern food habit  $P=0.050$ . (See Table 9)

### 5.5.7 Monthly income

The ANOVA result shows that in Table 9 there was a significant difference between the means

of four income groups at 0.05 levels for Affordable price  $P=0.042$  and shelf life  $P=0.026$ . On other hand, there was no significant difference between individual factors on consumers purchase decision of different income groups for the importance of Freshness & cleanliness, Good taste, Quantity of vegetables, Appearance/color, Odour intensity/smell, Increases the wellness/Health consciousness, Contain good nutrients, Quick to prepare, Lifestyle/Modern food habit, Price of close substitute, Non-seasonal availability, and Reference group influence/Word of mouth.

**Table 7. Rotated component matrix**

Component	Total variance explained					
	Initial eigenvalues			Extraction sums of squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.551	32.510	32.510	4.551	32.510	32.510
2	1.922	13.730	46.241	1.922	13.730	46.241
3	1.622	11.583	57.824	1.622	11.583	57.824
4	1.236	8.830	66.653	1.236	8.830	66.653
5	.891	6.362	73.015			
6	.753	5.379	78.394			
7	.682	4.870	83.264			
8	.535	3.820	87.085			
9	.462	3.298	90.382			
10	.420	2.998	93.380			
11	.371	2.651	96.031			
12	.233	1.664	97.695			
13	.196	1.403	99.099			
14	.126	.901	100.000			

*Extraction Method: Principal component analysis*

**Table 8. Factors influencing consumers' purchasing of exotic vegetables**

S. No	Factor	% Variance	Qualities	Mean	Sd
1.	Value Aspect	32.510	Affordable Price	3.90	1.084
			Price of Close Substitutes	3.75	1.189
			Quantity of Vegetables	3.89	.994
			Quick to Prepare	3.58	1.226
			Appearance/Colour	3.90	1.084
2.	Health-Oriented	13.730	Shelf Life	4.38	.821
			Contain Good Nutrients	4.45	.724
			Increases the Wellness/Health Consciousness	4.50	.809
			Odor Intensity/Smell	4.18	.919
3.	Lifestyle & External Information	11.583	Reference Group Influence/Word of Mouth	3.89	1.179
			LifeStyle/Modern Food Habit	3.78	1.075
			Non-Seasonal Availability	3.64	1.081
4.	Quality Prospects of Vegetables	8.830	Good Taste	4.17	.905
			Freshness & Cleanliness	4.26	.899

**Table 9. ANOVA for socio-demographic and factor influencing purchase of exotic vegetables**

	Gender		Age		Marital Status		Household size		Education		Occupation		Monthly income(Rs.)	
	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.
Freshness & cleanliness	.652	.421	.309	.872	2.816	.096	.983	.377	2.046	.077	1.505	.193	.260	.854
Good taste	.097	.756	.798	.528	4.454	.037*	2.275	.107	1.910	.098	.428	.829	.173	.915
Affordable price	.043	.836	1.729	.148	6.985	.009**	5.025	.008**	.947	.454	.582	.714	2.823	.042*
Quantity of vegetables	.005	.945	1.094	.363	4.271	.041*	3.475	.034*	2.140	.065	.793	.557	1.317	.272
Appearance/Colour	1.801	.182	3.652	.008**	12.515	.001**	.623	.538	.717	.612	.504	.773	.360	.782
Shelf life	3.026	.084	.751	.559	.796	.374	.256	.774	.784	.563	.195	.964	3.193	.026*
Odor intensity/Smell	5.208	.024*	1.488	.210	.773	.381	1.148	.321	1.982	.086	1.626	.158	1.116	.346
Increases the wellness/Health consciousness	.525	.470	1.552	.192	.074	.786	1.022	.363	2.632	.027*	.749	.588	.656	.581
Contain good Nutrients	.394	.531	1.091	.364	1.853	.176	4.136	.018*	.881	.496	.569	.724	.771	.513
Quick to prepare	1.318	.253	1.062	.379	1.106	.295	1.926	.150	1.184	.321	.963	.444	1.089	.356
Lifestyle/Modern food habit	1.660	.200	3.390	.012*	1.146	.286	.088	.916	1.028	.404	2.186	.050*	.504	.680
Price of close substitute	1.415	.236	3.801	.006**	5.460	.021*	.474	.624	1.274	.280	.087	.994	2.517	.061
Non-seasonal availability	2.002	.160	1.020	.400	2.587	.110	1.198	.305	1.648	.153	.613	.690	1.090	.356
Reference group influence/Word of mouth	.060	.807	.016	.999	.187	.666	.876	.419	.682	.638	.340	.888	.307	.820

\*\* Significant at the 0.01 level, \* Significant at the 0.05 level

## 6. CONCLUSIONS

The main aim of this paper is to understand factors influencing consumer behavior towards purchasing exotic vegetables in Coimbatore city.

In the emerging modern lifestyle, peoples are changing their living standards by introducing modern cuisine in their food. Peoples are more conscious of health-oriented factors, gradually realize the importance of the intake of more healthy vegetables and greens for better health and fitness. Nowadays, exotic vegetable consumption is increasing among the consumers due to their presence of numerous antioxidants, nutrients, vitamins, and dietary fibers, etc.

### 6.1 Based on the Result of the Analysis it can be Concluded

Findings of the study indicate that the exotic vegetable purchase decision was majorly done by female consumers. The people age group of 21-30 years were highly interested in purchasing exotic vegetables. A higher level of education and higher income groups prefer exotic vegetables in their food habit.

The result of the factor analysis of various attributes of exotic vegetables clearly indicated that 66.653% accounting for four factors that include value aspect, health-oriented, lifestyle & external information, and quality prospects of vegetables. In that value aspect factors accounting 32.510% is revealed marketers concentrating these factors will increase the profit of outlets.

Apart from this, the study confirmed the null hypothesis has been rejected which means that consumers' purchase behavior has been influenced by the majority of factors apart from freshness & cleanliness, quick to prepare, non-seasonal availability, and reference group influence/word of mouth. The result of the respondents based on various socio-demographic profiles and product factors will help the farmers/retailers to understand the needs of consumers in the emerging market of exotic vegetables in a better way.

## CONSENT

As per international standard or university standard, Participants' written consent has been collected and preserved by the authors.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. Available:[http://apeda.gov.in/apedawebsite/six\\_head\\_product/FFV.htm](http://apeda.gov.in/apedawebsite/six_head_product/FFV.htm)
2. Juric B, Worsley A. Consumers' attitudes towards imported food products, Food Quality and Preference. 1998;9;6:431-41.
3. Turrell G, Hewitt B, Patterson C, Oldenburg B, Gould T. Socioeconomic differences in food purchasing behaviour and suggested implications for diet-related health promotion, Journal of Human Nutrition and Dietetics. 2002; 15;5:355-64.
4. Kotler P, Armstrong G. Principles of marketing. Englewood Cliffs, NJ: Prentice-Hall; 2010;187.
5. Ali J, Kapoor S, Moorthy J. Buying behaviour of consumers for food products in an emerging economy, British Food Journal. 2010;112;2:109-124.
6. Al-Gahaifi, Tarish, Svetlik, Jaroslav. Factors influencing consumer behaviour in market vegetables in Yemen. Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis. 2011;59:17-28.
7. Nicolae I, Corina P. Consumer behavior on the fruits and vegetable market. Annals of the University of Oradea: Economic Science. 2011;1(2):749-754.
8. Chikkamath, Manjunath, Atteri BR, Srivastava, Shivendra Roy, Shubhadeep. Factors influencing consumers' behaviour for vegetable purchase. Vegetable Science; 2012;39:35-39.
9. Sanjeev Kapoor, Niraj Kumar. Fruit and vegetable consumers' behavior: Implications for organized retailers in emerging markets. Journal of International Food & Agribusiness Marketing. 2015; 27(3):203-227. DOI: 10.1080/08974438.2014.940118
10. Anitha N. Influence of Lifestyle on consumer decision making with special reference to organized retail formats in chennai. Indian Journal of Commerce and Management Studies. 2016;7(1):85.
11. Bulsara, Hemantkumar, Trivedi, Kshitij. An exploratory study of factors related to consumer behaviour towards purchase of fruits and vegetables from different retail

- formats. Journal of Research in Marketing. 2016;6;397.
12. Singh Kanchan, Neeraj. A study on factors affecting consumers decision to purchase vegetables. International Journal of Current Microbiology and Applied Sciences. 2018;2.
  13. Raaijmakers I, Sijtsema S, Labrie C, Snoek H. Consumer segmentation based on health-related motive orientations and fruit and vegetable consumption. British Food Journal; 2018.
  14. Herath US. Consumer behavior and attitudes in purchasing vegetables. Agri Res & Tech: Open Access J. 2019;20(2):556123. DOI: 10.19080/ARTOAJ.2019.20.556123 Available: <https://blog.sathguru.com/agribusiness/flourishing-market-for-exotic-vegetables-in-india/>
  15. Hair JF Jr, Babin B, Money AH, Samouel P. Essential of business research methods. John Wiley & Sons: United States of America; 2003.
  16. Available: <https://www.real-statistics.com/statistics-tables/pearsons-correlation-table/>

© 2020 Velumani and Balaji; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

*Peer-review history:*  
*The peer review history for this paper can be accessed here:*  
<http://www.sdiarticle4.com/review-history/65063>