Assessing the Market Potential of Home-Made Masala and Spice Powder

Harishma Vijay L, Dhanya M, Anupama Sudarsan

Abstract: This paper aims at assessing the consumer choice for masala (Homemade/ Ready-made powder) for home cooking in Trivandrum City in the state of Kerala, India. Kerala is popularly known as the "King of Spices," the leading producer of black pepper, enjoying a pride of place among all the spice producers. From the analysis made by us it is clear that people choose home-made forms of masala rather than ready-made ones. The reasons behind this are clearly studied in this paper. The target market is identified and segmented. Geographic segmentation is done by dividing the entire Trivandrum city into 12 major locations. Socio-demographic segmentation was also done on the basis of age, gender and income. Descriptive research design is being employed for the study. The data is collected using survey method by self-administering questionnaire or survey instrument. This paper is mainly divided into two main parts. The first part talks about the relationship between certain demographic factors like age, income and gender with the choice of masalas. The sample size is 300 and a Chi-square test of independence is done using SPSS tool. The second part talks about the reasons why people prefer home-made forms compared to ready-made forms of spice and masala powders. For this the sample size was 121 respondents. The analysis is done using Voyant tool. Text mining approach has been adopted. From the results it is clear that there is no significant correlation between the demographic factors considered and the choice made. Most of the respondents prefer to use home-made spices and masala powders as they consider it to be not adulterated. The two major factors driving the growth of the global organic food & beverage market are the number of health-conscious customers and growing awareness of the health benefits associated with organic spice consumption. Health is an important aspect considered in the case of spice powders and masala. People do not tolerate adulteration and hence they tend to choose the traditional methods of making masala powders over the ready-made forms available in the market today. This study would help the marketers to know the market potential and also to understand the consumer needs in case of spices and masala powders.

Keywords: Home-made spices, adulteration, text mining

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I. INTRODUCTION

Organic products market is growing as consumer preference for organic food products is increasing. Promoting organic food products is an important choice not only for farmers, governments and customers, but also for responding to the demand of communities for higher quality food and food production (Leila Hamzaoui-Essoussi and Mehdi Zahaf, 2012). The pattern of food consumption in Kerala varies completely from that of other states in India. The country's economic development also results in improvements in the production, processing, distribution and marketing of food products. Factors such as income-induced diet diversification, the effects of globalization, increased urbanization and people's shifting lifestyles would change people's pattern of food consumption. Kerala's food industry is lined with a number of brands at the state, national and international levels. (Swarna Sadasivam Vepa1, 2005).

Spice plays an important role in enhancing the taste and flavor of the processed food items. India produces nearly all the known spices, and is this commodity's major exporter. Curry powder is the most preferred among powdered blends of spices or mixes and sometimes consists of 20 or more spices formulated to impact an Indian curry's characteristic flavours. In the domestic markets, demand for unadulterated spices and curry powder in attractive handy packets is rapidly growing. (Rohatash. K. Bhardwaj B. K. Sikka Ashutosh Singh M. L. Sharma N. K. Singh)

Kerala known as the world's Spices Garden has seen tremendous growth in consumer industries related to spices recently. The spices are used in different forms to improve the flavor and aroma of food. Today there is a definite trend towards the use of spices mainly in powdered form and in many curry powder combinations. Curry powder, chilli powder, turmeric powder, spices powder etc. are extensively consumed to make all kinds of vegetable and non- vegetable food items.(B. Sasikumar, T. John Zachariah, S.Syamkumar, R.Remya, 2007) .The quality of all of these ingredients improves food products ' taste and quality. Consumers around the world have consistently opted for unadulterated food items despite the cost. The fast-living style of people in the world today would increase the demand for ready-to-use food products. (S.Syamkumar, B. Sasikumar, K. Dhanya.2009).

This paper focuses mainly on the type of masala used in homemade cooking. It mainly consists of two types: Home-made masala and Ready-made masala. People prefer homemade masala mainly because they believe that ready-made forms of masala are being adulterated.

The primary objective of this study is to assess the consumer's choice of masala (Home-made / Ready-made) for home cooking based on demographic factors such as age, income and gender. The research also aims to explore factors that may influence the intention of people to buy organic / home-made curry powders.

II. REVIEW OF LITERATURE

Research on consumer attitude towards the use of chemical substances was discussed as early as 1965 (Bearler and Willits, 1968). In today's world, people are becoming more concerned with preserving the nature.

However, it is not practically possible to withstand the use of pesticides and other chemical substances with the need to expand production in the agricultural sector to ensure continuous food supply. Green product industry could be the ideal solution for this problem. Organic farming is gaining importance as consumers are demanding to know the benefits of the food they are buying and consuming. This purchase decision is becoming a new marketing trend. Among the various factors influencing the intention to buy organic products, it is important to analyze which of the factors offer the greatest impact.

A study was conducted in Kannur state municipality of Kerala on the consumer choice of branded agro-processed products (V. Prameela and A. Sakeer Husain, 2007). Recently, rapid progress has been noticed in the agro-processing industry in Kerala. This is because the magnitude of changing needs and lifestyles of consumers and also they prefer comfort and convenience. From the results it was inferred that product features (taste, freshness, and shelf life) and advertisements decide why the consumers choose branded agro-processed products, such as sambar powder, meat masala, rasam powder, pickles, and jams.

A research on consumer satisfaction of Aachi Masala produts was carried out in the district of Cuddalore (Dr. R. Krishnakumar and Manikandan. R,2017) in order to improve product quality.

The Aachi masala masala faced many challenges, since it was not easy to sell masala goods to the traditionally conservative oriental women during those days. The study's overall analysis showed that packaging, price, availability, taste, etc., and media efficiency have an influence on consumer satisfaction.

Another research on consumer awareness and satisfaction towards organic products (Abisha KA and Dr. P Kannan, 2018) suggested that the key reason for buying organic food products is the expectation of a safe and environmentally friendly way of producing them. This research attempted to gain consumer awareness of organic food consumption and to see if there is any impact this could have to change their behavior.

In order to assess awareness of food adulteration in an urban slum, cross-sectional study was conducted (Shailesh Ishwar, Puja Dudeja, Pooja Shankar, Santosh Swain, and Sandip Mukherji, 2016). On a daily basis instances of adulteration and contamination of essential food being reported in India. As a result, food safety is a growing problem. The concept of food adulteration has been a part of Indian society since time immemorial. They have noticed a significant correlation between educational status, age of social economic status and good purchasing practices. Food buying practices have been better in people with better education and higher SES according to the findings.

It is evident from the above studies that the growth of organic farming is seen as one of the new marketing patterns where customers demand to know what benefits a food could offer before making a purchase decision. The key motivation to purchase organic food products is the desire of a method of processing that is better and eco-friendlier. In the case of branded agro-processed products, a customer preference is determined by the product attribute such as taste, freshness, and shelf life and advertising. Another study indicates that in the case of packaged curry powders like Aachi masala powder, packaging, price, availability, taste, etc., and media efficacy have an influence on consumer satisfaction. Another important insight is that food safety is a growing problem with reports every other day of instances of adulteration and contamination of essential foods in the media. This is why our research focuses on addressing those demographic factors (age, income and gender) that influence the choice of consumers. It also discusses the factors why customers are deciding to choose Home-made curry powders.

III. RESEARCH QUESTIONS

A. In today's world a lot of new packaged curry powders are popping out in the market. This study aims to infer whether demographic factors such as age, gender and income influence the preference of the customer to buy home-made or ready-made masala powders.

B. There are different spice powders and masala powders are available on the market, a significant portion of consumers still prefer to use raw spices and spice powders for cooking. Consumer preferences were analyzed when selecting the homemade type of masala powders.

IV. RESEARCH METHODOLOGY

In this paper we have used the primary data collected from 12 different locations in Trivandrum district, Kerala. The sample size is 300. Descriptive research design is being employed for the study. The data was collected using survey method by self-administering questionnaire or survey instrument.

The tool used for analysis are SPSS and Voyant tool. A chi-square test is used to evaluate the Test for independence that is to test the relationship between the categorical variables. The test of Independence assesses whether an association exists between the two variables by comparing the observed pattern of responses in the cells to the pattern that would be expected if the variables were truly independent of each other.

A text mining software called Voyant tool was used to analyze the data. This software is a web-based program for the study of texts. This technology is used to create word clusters that help us evaluate the frequency of keywords that contain textual data. The keyword available in the tool's context option helps to understand the context in which the most common words are used. The **ANALYSIS** also provides insight into feelings such as positive or negative towards different attributes of service quality. The primary data collected from the survey was used for the process.

The responses for the question "Why do you prefer raw spices over spice powders and masala powders?" were recorded and analyzed.

V. HYPOTHESIS

The hypothesis has been framed to test the relationship between the choice of the form of masala used for home cooking and certain demographic factors. influencing consumer satisfaction.

H0 - There is no significant difference between Gender, age and income of the respondents with respect to the choice (Home-made/ Ready-made masala) they make.

VI. ANALYSIS

In the data analysis there is classification and frequency of different demographic profiles like Gender, Age and Income. Chi-square test helps to understand the relation between different demographic factors and the choice of the customer (Home-made or Ready-made).

Hypothesis 1

H11 : There is association between Gender and the choice of the customer.

Table 1: Cross tabulation result between Choice of masala and Gender

	Value	df	Asymp. Sig. (2-sided)
Hypothesis 1	2.766a	1	0.096
Hypothesis 2	74.273a	4	0
Hypothesis 3	42.633a	3	0

Hypothesis 2

H12 : There is association between Age and the choice of the customer.

Table 2: Cross tabulation result between Choice of masala and Age

	Age					Total
	20-30	31-40	41-50	51-60	60 above	
H Choice of Masala	6	12	38	27	36	119
R	58	54	32	28	10	182
Total	64	66	70	55	46	301

Hypothesis 3

H13 : There is association between Income and the choice of the customer.

Table 3: Cross tabulation result between Choice of masala and Family Income

	Monthly family income			
	10000 below	10000-4999	100000	50000-9999
		9	above	9
H Choice of Masala	25	51	13	30
R	3	60	42	77
Total	28	111	55	107

Inference

Table 4: Chi-Square Tests

	Gender		Total
	Female	Male	
H Choice of Masala	102	17	119
R	167	15	182
Total	269	32	301

Hypothesis 1: The H11 is rejected (chi-square with 1 degree of freedom=2.766, p=.096) There is no association between Gender and the Choice of masala.

Hypothesis 2: The H12 is accepted (chi-square with 4 degrees of freedom=74.273, p=.000) There is association between Age and the Choice of masala.

Hypothesis 3: The H13 is accepted (chi-square with 3 degrees of freedom=42.633, p=.000) There is association between Income and the Choice of masala.

B. The responses for the question "Why do you prefer raw spices over spice powders and masala powders?" were analyzed. The main keywords obtained from the responses are "adulteration", "natural", "healthy" and "availability". The sample size is 121.

Table showing the frequency of the above mentioned keywords in the customer responses is given below.

Table. 5. Words from text mining and its count

Keyword	Frequency
Adulteration	72
Natural	38
Healthy	6
Availability	3
Freshness	2

The context in which the words used are defined and analyzed in order to understand the major factors affecting the customer's choice of home-made masalas.

A word cluster is formed after the text analysis with Voyant software.

Fig. 1: Word cluster from text analysis

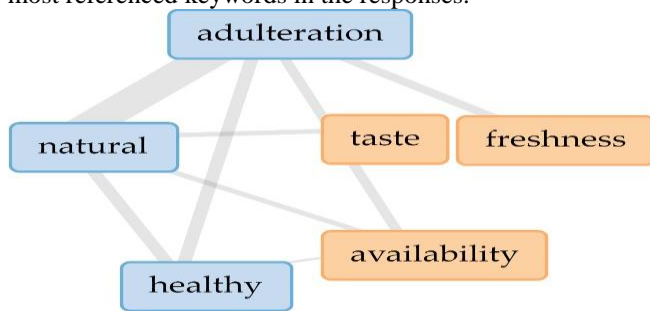A linkage diagram is presented in (Figure 2) containing the most referenced keywords in the responses.

Fig. 2: Links from the text mining

VII. DISCUSSION

In India, most of them love to have a scrumptious twist with the flavors of rich herbs and spices in their meals. Each spice by itself gives a very unique taste, but when used together with other spices, the mixture of different spices somehow transforms the individual flavors. There are many spices which have antimicrobial properties. This may explain why it is used more often in warmer climates with more infectious diseases, and why spice use is common in meat, which is particularly prone to spoilage. Spices are sometimes used in medicine, in religious rituals, in the production of cosmetics or perfumes or as vegetables. From the above research it is clear that the choice of natural spices or packaged ones do not depend on age, gender and income. Out of the 300 sample population, 121 respondents chose home-made forms or natural spices. Majority of the respondents prefer natural spices because it is not adulterated.

Consumers give importance to the purity of the products they consume. There can be future studies on the factors considered in buying ready-made masala powders or spice powders. Only few demographic factors are considered in this paper, other factors can also be accounted in future studies. From this research it scan be concluded that there is no significant correlation between the demographic factors considered and the choice made. Most of the respondents prefer to use home-made spices and masala powders as they consider it to be not adulterated.

VIII. CONCLUSION

From the above research it is clear that the choice of natural spices or packaged ones do not depend on age, gender and income. Out of the 300 sample population, 121 respondents chose home-made forms or natural spices. Majority of the respondents prefer natural spices because it is not adulterated. Consumers give importance to the purity of the products they consume. There can be future studies on the factors considered in buying ready-made masala powders or spice powders. Only few demographic factors are considered in this paper, other factors can also be accounted in future studies. From this research it can be concluded that there is no significant correlation between the demographic factors considered and the choice made. Most of the respondents prefer to use home-made spices and masala powders as they consider it not to be adulterated.

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