

A Study on Consumer Preference towards Instant Food Products

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Abstract

Food is a basic need which is to be fulfilled for everyone's survival. Previously every food was prepared by the people in their home itself. But in the present fast moving world time has become precious, many have changed their food habits and shifted to a number of instant food products. Instant food products play a very significant role in the present day situation where both men and women are employed. Since the demand for instant food products are picking up, number of manufacturers entered in to the field of instant food products with different brand names. Thus the consumers can choose any brand of their own choice. In this research paper an attempt is made to ascertain the consumers' preference towards instant food products. For analytical purposes, statistical tools such as chi-square test and factor analysis are used. The results reveal the fact that there is no association between occupation, family monthly income, family type and spouse employment and the monthly expenditure on ready-to-eat instant food products. Further the factor analysis indicates that packing, hygiene, societal influence and influence of advertisement play an important role in forcing the customers to buy the instant food products.

Key Words: *Consumer preference, Instant food products, Chi-square test and Factor analysis*

1. Introduction

Food is required for the physical existence of every living thing. It is any substance consumed to provide nutritional support for the body and which can be metabolized by an animal to give energy and build tissue. As far as human beings are concerned, they give more importance to tasty food. In olden days, people used to have their food prepared by themselves. The food was properly processed for improving the quality, and nutritive value and preventing the deteriorative changes. One may witness changes in the food habit mainly due to increase in the ratio of working women, increased urbanization, impact of western culture, and changes in lifestyle. Now-a-days priority is given to

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instant food products by many people instead of traditional home made food products. The changes in the business and marketing environment lead to the production and marketing of different goods and services to satisfy various needs of modern consumers and hence instant food products.

The term "instant food" refers to simple, fast and convenient food and at the same time it is also easy and fast to prepare. It is also free from microbial contamination and it possess the characteristic of hygiene nature These food products may be in the form of packed products which are ready to eat, ready to cook and the like. In the market there are a number of products which make the cooking more convenient. For the purpose of this research the instant food products are classified into two categories such as ready-to-eat items including the items which require simple boiling or heating or mixing with water, such as, noodles, chapathi mix, parota mix, idli/dosa mix, rava dosa mix, bajji mix, briyani mix, puliyodara mix, gulab jamoon mix, and chatni mix and readymade cooking materials which make the cooking more convenient include sambar powder, chilly powder, rasam powder, turmeric powder, idli chilli powder and the like. A large number of branded and unbranded items are available for these products. Consumers get information about these products from various sources such as advertisements in TV, Radio, Newspaper and Magazines, shopkeepers, neighbours, relatives, friends, children and window display.

While purchasing instant food products a number of factors influence the purchase decision of a consumer. These factors are classified into four categories such as packing of the products, hygiene, societal factor and influence of advertisement. Considering these factors, a consumer may prefer any brand of instant food products as his/her choice. In order to probe into these factors the researcher has made an attempt to study the consumer preference towards instant food products.

2. Objective

- To identify the brand preferences of the respondents for instant food products.
- To test the significant relationship between socio-economic factors and monthly expenditure spent on instant food products
- To test the significant relationship between socio-economic factors and the factors influencing the purchase decision of a particular brand
- To identify the factors influencing the consumers to prefer instant food products

3. Hypotheses

- There is no significant relationship between socio-economic factors and monthly expenditure spent on instant food products
- There is no significant relationship between socio-economic factors and the factors influencing the purchase decision of a particular brand
- Packing and hygiene factors influence people to purchase instant foods

4. Scope

The present study covers Dindigul town only. The data are collected from only those who are using instant food products. The study is undertaken in the time period between May and July 2013. This study is about consumer preference towards instant food products which covers Ready-to Eat items such as, Noodles, Parota Mix, Idli/Dosa masu, Bajji Mix, Briyani Mix, Gulab Jamoon Mix, Puliyodara Mix, and Chatni Mix and Readymade Cooking Materials such as, Sambar Powder, Chilli Powder, Rasam Powder, Turmeric Powder, and Idli Chilli Powder in vegetarian category and Chicken 65 Powder, Fish Fry Masala, Mutton Masala, Chilli Chicken Masala and Fish Kulambu Masala in non-vegetarian category.

5. Review of Literature

Rees (1992) identified flavor, texture, appearance, advertising, reduction in traditional cooking as the most influencing factors of consumers' choice towards food products. Brown et al. (2000) analysed the young consumer's preferences towards food by analyzing their nutritional awareness behavior under home, school and social environment and found that most of the young consumers' food preference is "fast food" which was definitely not suitable for them. Shivkumar (2004) identified that family members, recommendation of the dealer and advertisement plays a vital role for a consumer to prefer instant food products irrespective of the income group, Ramasamy, K., et al. (2005) identified that the awareness and attitude towards the product played a major role in influencing its buying behavior. Tamlurkar (2006) has mentioned that emergence of industrial societies, reduced domestic servants, women folk going to the jobs and the emergence of nuclear families is an important factor for preferring instant products. Usha (2007) analysed the existing buying behavior of Instant Food Products by individual households and predicted the demand for instant food products in Kolar District. She used multi-stage random sampling technique and concluded that the study area is not purchasing the Dosa/Idli mix, pickles and sambar masala even though they are readily available because of high price, low quality and poor taste. So she suggested to the manufacturers to give importance to the quality of instant food products and create awareness about these products through media especially in rural areas. Hirekenchanagoudar Renuka (2008) found that a majority of the residents of Hubli and Dharwad purchased biscuits, chips, fruit juice and ice creams and so she opined that there is a wide scope for this type of business and concluded that the purchase of these products was impulsive and most of them were health and quality conscious. Albayrak Mevhibe and Alan Zekiye (2009) tried to compare the consumers' attitudes and preferences towards the food products of manufacturers and private brands. They found that there was a good awareness about the private food products among a good number of respondents. Makgosa Rina and Mabalane Nohenesi (2011) analysed the consumer perception towards health, convenience, price, and service of Fast Food Restaurants. The results of their study revealed that the consumers in Botswana had negative perception about the health aspects of fast food restaurants. Price and Service are viewed positively.

Finally they suggested that the fast food restaurant managers have to improve the hygiene, cleanliness, quality ingredients, reasonable price and focus more attention on improving service delivery. Swamy Bala et al. (2012) made an attempt to analyze the existing buying behaviour of Instant Food Products by individual households and to predict the demand for Instant Food Products of Hyderabad city in Andhra Pradesh. They identified the factors that influenced brand preference of the selected instant food products as best quality followed by retailer's influence, ready availability and convenience. According to Pradeepa and Kavitha (2013) technological changes and the changes in the lifestyles of the people followed by convenient usage, easy availability, less time consumed and better taste are the main reasons behind the rapid growth of the instant food industry.

6. Methodology

An interview schedule was administered and Quota sampling technique was used to collect data from 150 respondents in Dindigul Town covering respondents from five quotas such as, Labour, Self employed, professionals, private sector employees, and government sector employees. Statistical tools applied for the analysis are: Percentage analysis, Chi-Square test and Factor analysis

7. Limitations of the Study

This study is based on convenient sampling which is a non-random sampling technique. So the results of the study cannot be generalized. As the study records the past events of the respondents, their responses are based on their memory recall.

8. Analysis and Interpretation

In order to analyze the consumer preference towards instant food products, it is essential to analyze the socio-economic profile of the respondents. In Table 1 Socio-economic profile of the respondents is presented.

Table 1 shows that out of 150 sample respondents, 36% are in the age group of 25-35, 58% are females, 34% have educational qualification upto HSc, more than half of the respondents (52%) are from rural areas, 35.30% have the family's monthly income of upto Rs.10,000, major portion of them (60.70%) are in nuclear family system, 52% have 2 to 4 dependents, nearly two-third (66%) of them are non-vegetarian, and 60.70% of the respondents' spouses are employed.

Monthly expenditure of instant food products and their timing of purchase

The life style of the people has changed which in turn is having an impact on demand for instant food products. For analysis purpose, instant food products are classified into two as (1) Ready-to-eat items (with simple boiling or heating or mixing with water or with rice) and (2) Readymade cooking materials. Since instant food products are available in

small packets, the problem of storing does not arise. Further people can buy as and when they require it. In Table No 2 monthly expenditure of instant food products and their Timing of purchase are analyzed.

Table 1: Socio- Economic Profile

Particulars		Respondents	
Valid		Frequency	Percentage
Age	Upto 25	34	22.70
	25-35	54	36.00
	35-45	32	21.30
	45&above	30	20.00
	Total	150	100.00
Sex	Male	63	42.00
	Female	87	58.00
	Total	150	100.00
Education	Upto Hsc	51	34.00
	UG	33	22.00
	PG	37	24.70
	Professional	25	16.70
	Any other	4	2.60
	Total	150	100.00
Area	Rural	78	52.00
	Semi-urban	40	26.70
	Urban	32	21.30
	Total	150	100.00
Family Income (₹)	Upto 10,000	53	35.30
	10,000-25,000	43	28.70
	25,000-50,000	38	25.30
	50,000 & above	16	10.70
	Total	150	100.00
Family Type	Joint family	59	39.30
	Nuclear	91	60.70
	Total	150	100.00
Number of dependents	Upto 2	24	16.00
	2-4	78	52.00
	4 & above	48	32.00
	Total	150	100.00
Food Habit	Vegetarian	51	34.00
	Non-vegetarian	99	66.00
	Total	150	100.00
Employment of spouse	Employed	91	60.70
	Not employed	59	39.30
	Total	150	100.00

Source: Primary Data

Table 2: General details about monthly purchase of instant food products

Particulars	Ready-to-eat items		Readymade cooking materials	
	Frequency	Percentage	Frequency	Percentage
Monthly Expenditure (₹.)				
Upto ₹1000	119	79.30	140	93.3
1,000 - 1,500	7	4.70	6	4.00
1,500-2,0000	12	8.00	1	0.70
2,000 & above	12	8.00	3	2.00
Total	150	100.00	150	100.00
Timing of purchase				
Planned	73	48.70	75	50.00
Occasional	55	36.70	58	38.70
Impulsive	22	14.70	17	11.30
Total	150	100.00	150.00	100.00

Source: Primary data

From the above Table 2, one can state that frequency of purchase of instant food and cooking material is heavy among people who spent up to ₹ 1000 for such items. The respondents have got information from various sources. Nearly 50% of the respondents are able to plan their purchases well in advance and hardly 15% of the respondents are not able to plan in advance and their buying behavior is impulsive in nature.

Brand Loyalty

A number of branded products are available in instant food product market. Consumers may prefer to buy branded products of their choice. In Table No 3 brand preferences are analyzed

In case of Ready- to -eat items, for Noodles 1/3rd of the people prefer Maggie, and 1/3rd of the people do not buy noodles at all. As regards parota mix 2/3rd of the people do not prefer it, and regarding idly and dosai masala more than 1/3rd of the people are not buying it. Further people are not aware of local brands as regards rava dosa mix, 75% of the people are not buying it and GRB is popular among buyers for it. For Bajji mix, MTR is popular among buyers, for Briyani Mix, Aachi brand is popular, for Gulobjamun mix MTR tops the list of brand preferences, for Puliodarai mix only a very small percentage prefer Aachi brand, for chatni mix Anil brand is popular among users. In case of readymade cooking materials it is observed that Sakthi brand leads the brand preference. As regards non-vegetarian items Sakthi brand is far ahead of other items. In case of fish kulambu masala though 50% of the non vegetarians are not buying, sakthi brand is still popular in this segment also. The analysis clearly shows that in readymade cooking materials, Sakthi masala is the leader in the market followed by Aachi and Anil.

Table 3: Brand Preferences for Instant Food Products

	Not aware of brand name	Brand name	Frequency of brand selected	Not buying
Ready -to- eat items				
Noodles	11	Maggie	51	
		Top Ramen	16	
		Foodles	11	
		Yipee	10	
		Anil	3	48
Parota Mix	21	Valis	9	
		Anil	8	
		Krisna	6	106
Idli/Dosa	33	Different home-made	57	60
Rava dosa	4	GRB	20	
		Krisna	19	
		Anil	16	91
Baji mix	16	MTR	25	
		Aachi	14	
		Sakthi	5	90
Briyani mix	14	Aachi	22	
		Sakthi	12	
		J.T.	6	96
Gulab Jamoon mix	22	MTR	39	
		Ruchi	16	
		Aachi	10	
		Milkmaid	1	62
Puliyodara Mix	3	Aachi	12	
		Sakthi	9	126
Chatni mix	1	Anil	12	135
		Everest	2	
Readymade cooking materials				
Sambar powder	12	Sakthi	61	
		Aachi	31	
		Ashirwad	2	44
Chilli powder	11	Sakthi	63	
		Aachi	23	
		Ashirwad	2	51
Rasam	18	Sakthi	34	

powder		Aachi-	12	
		Everest	2	84
Turmeric powder	19	Sakthi	45	
		Aachi	29	
		Natraj	3	54
Idli chilli	23	Aachi	28	
		Sakthi	10	
		Krisna	11	78
Chicken 65 Powder	7	Sakthi	63	
		Aachi	22	
		Everest	3	4
Fish fry masala	7	Sakthi	31	
		Aachi	15	
		Everest	4	42
Mutton masala	6	Sakthi	31	
		Aachi	23	
		Everest	2	27
Chilly chicken	6	Sakthi	35	
		Aachi	20	
		Preethi	6	32
Fish kulambu masala	6	Sakthi	23	
		Aachi	13	
		Everest	8	49

Source: Primary Data

Impact of socio-economic factors on monthly expenditure on instant food products

The socio economic factors such as Occupation, Family monthly income, Family type and Spouse employment may have influence on monthly expenditure on instant food products. In order to analyse this aspect, Chi-square test has been used and the same has been presented in Table No.4.

In the case of ready-to-eat items one do not observe any significant relationship between Occupation, Family monthly income, Family type and Spouse employment and Monthly expenditure on ready-to-eat items, whereas in the case of readymade cooking materials, there is a significant relationship between family monthly income and spouse employment and monthly expenditure on them. It also shows that there is no significant relationship of Occupation and Family income with monthly expenditure on cooking materials. It means that work pressure forces people to go in for readymade cooking materials. Hence the first null hypothesis that there is no significant relationship between socio- economic factors and monthly expenditure spent on instant food products

regarding ready-to-eat items is accepted, and regarding monthly expenditure on readymade cooking materials, the null hypothesis relating to Occupation and Family type is accepted and relating to Family monthly income and Spouse employment is rejected.

Table 4: Relationship between socio-economic factors and monthly expenditure spent on instant food products

Socio economic factors	Monthly expenditure on ready-to-eat items				Monthly expenditure on readymade cooking materials			
	Chi square value	d.f.	Table value @ 1% level	Significance	Chi square value	d.f.	Table value @ 1% level	Significance
Occupation	16.667	12	18.5	Not significant	17.044	12	18.5	Not significant
Family monthly income	9.929	9	14.7	Not significant	30.156	9	14.7	Significant
Family type	1.094	3	6.25	Not significant	1.678	3	6.25	Not significant
Spouse employment	1.162	3	6.25	Not significant	11.975	3	6.25	Significant

Source: Primary data

Relationship between socio-economic factors and the factors influencing the particular brand of instant food products

There may be a significant relationship between socio-economic factors and the factors influencing the purchase decision of a particular brand of instant food products. The following Table 5 shows the analysis with the help of Chi-square test.

Table 5: Relationship between socio-economic factors and the factors influencing the particular brand of instant food products

	Factors	Chi square value	d.f.	Table value @ 1% level	Significance
1	Occupation	11.239	8	13.4	Not significant
2	Family monthly income	8.210	6	10.6	Not Significant
3	Type of family	2.802	2	4.61	Not significant
4	Spouse employment	0.178	2	4.61	Not significant

Source: Primary data

The above analysis indicates that, all the four factors mentioned above are not having any influence in selecting the brand of instant food products. Hence the second null hypothesis that there is no significant relationship between socio-economic factors and the factors influencing the purchase decision of a particular brand is accepted.

Dominant factors for buying instant food products - Factor analysis

For the purpose of understanding the factors which influence people to buy instant food products factor analysis is applied. Thirteen variables were identified as influencing factors. To test the adequacy of the sample Kaiser-Meyer Olkin test was calculated and it was 0.759. It shows that the sample is fit for further analysis. The overall significance of correlation matrix was tested with the help of Bartlett test of Sphericity (chi- square 646.735 and significant at 0.000) It also supports the validity of further analysis. The principal component analysis was employed for extracting factors and orthogonal varimax rotation was applied. The variables whose communalities were greater than 0.50 were retained. For the purpose of study four factors having Eigen values greater than one were extracted. The Eigen values of the four factors along with the cumulative percentage of the variance are presented in Table No 6.

Table 6: Total variance explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.981	26.537	26.537	3.981	26.537	26.537	3.032	20.213	20.213
2	2.295	15.299	41.836	2.295	15.299	41.836	2.739	18.263	38.476
3	1.471	9.807	51.643	1.471	9.807	51.643	1.622	10.813	49.289
4	1.071	7.143	58.786	1.071	7.143	58.786	1.425	9.497	58.786
5	.934	6.227	65.013						
6	.824	5.491	70.504						
7	.745	4.968	75.473						
8	.660	4.398	79.871						
9	.611	4.071	83.942						
10	.526	3.508	87.450						
11	.504	3.359	90.809						
12	.436	2.906	93.715						
14	.316	2.108	98.520						
15	.222	1.480	100.00						

Extraction Method: Principal Component Analysis.

In Table No 3 Eigen values associated with each linear component (factor) before extraction, after extraction and after rotation are presented. We have identified 15 factors within the data set. The Eigen values associated with each factor represent the variance explained by that particular linear component and the table also displays the Eigen values in terms of percentage of variance explained (factor one explains 26.53% of the total variance). It is very much clear that the first few factors explain relatively large amount of

variance particularly factor one, whereas subsequent factors explain only small amount of variance. We have extracted factors with eigen values greater than one which leaves us with four factors. The eigen values associated with these factors are again displayed in the columns labeled extraction sum of the squared loading. The cumulative values of the four dominant factors was found to be 58.786%

In Table No 7 loading of the variables under each of the four extracted factor is presented

Table 7: Rotated component matrix

	Component			
	1	2	3	4
Availability	.782			
Re-usable Packing	.719			
Convenient to store	.704			
Small pack	.682			
Attractive packing	.561			
Easy to handle	.549			
Hygiene		.867		
Healthy		.855		
Quality		.626		
Tasty		.531		
Influence of children			.799	
Influence of neighbor			.790	
Influence of advertising				.824

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalisation

a. Rotation converged in 4 iterations

The first factor "Packing" explained 26.537% of the variance. It consists of six variables. The first variable is the availability of the instant food products with the factor loading of 0.782 since they are available in every retail shops. The second variable is the re-usable packing of the instant food products with the factor loading of 0.719 as the pack can be reused for other domestic purposes. The third variable is the convenience of storing the instant food products with a factor loading of 0.704. The fourth variable is the small pack of the product with factor loading of 0.682 since people prefer many products which are compact and take less space in the shelf. The fifth variable is the attractive packing of the product with the factor loading of 0.561. The last variable is easy handling of the instant food products with the factor loading of 0.549.

The second factor "Hygiene" explained 15.299% of the variance. It consists of four variables. The first variable is the hygiene of the instant food products with the factor loading of 0.867 since people are being educated and more concerned about hygiene. The second variable is healthiness of the instant food products with the factor loading of 0.855. The third variable is the quality of the instant food products with the factor loading of 0.626 since many consumers have started importance to the quality products. The ending variable is the tastiness of the instant food products with the factor loading of 0.531 as many people take these foods for tastiness instead of fulfilling the hunger.

The third factor "Societal influence" explained 9.807% of the variance. It consists of two variables. The first variable is the influence of children in the buying of instant food products with the factor loading of 0.799. The second and last variable is the influence of neighbor in the buying of instant food products with the factor loading of 0.790. In the present day situation, one cannot avoid the influence of the society in making a buying decision.

The last factor "Influence of advertising" explained 7.143% of the variance. It consists of only one variable that is the influence of advertising in the buying of instant food products with the factor loading of 0.824. Today advertising plays a major role in influencing the people to buy any product especially instant food products.

Hence it is concluded that factors like packing, hygiene, societal influence and influence of advertisements are the main factors influencing the people to purchase the instant food products.

8. Conclusion

Rapid changes are noticed in the buying behavior of customers towards instant food products and instant cooking materials. As regards brand loyalty Sakthi products followed by Aachi products are well remembered in readymade cooking materials. For the purpose of analysis, a comparison is made between socio-economic factors such as, family monthly income, occupation, family type and spouse employment and brand preferences and the results show that these factors are not having any relationship with brand preferences. The analysis of impact of socio economic factors on monthly expenditure on instant food products, occupation, family monthly income, family type and spouse employment do not have any impact on monthly expenditure on ready-to-eat items, occupation and family type do not have any impact on monthly expenditure on readymade cooking materials and the family monthly income and spouse employment have the impact on the readymade cooking materials. The factor analysis clearly establishes the fact that packing, hygiene, societal influence and influence of advertisement play a predominant role in forcing the customers towards instant food products and readymade cooking materials. Therefore manufacturers are suggested to concentrate on advertising the instant food products attractively and differently by using

celebrities to popularize the usage of these products. Further they have to give attention to convenient, attractive, reusable, and compact packing since packing is the tongue of the company through which it speaks. In general there is a thought among several people that instant food products erode our health. So the manufacturers have to do a tremendous work in proving that it is just a myth and inculcate in their minds that they are good for health. Since the demand for instant food products are gaining momentum, manufacturers should concentrate on the factors mentioned above so as to increase their market share. But at the same time it is to be borne in mind that advertising and packing will definitely increase the cost of the product. As a result the price will also increase. Hence it is the duty of the manufacturers to make the consumers realize that the price charged is reasonable for the quality.

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