



## PROCESSED FOOD CONSUMPTION AND HEALTH OUTCOMES AMONG WORKING WOMEN

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### ABSTRACT

*The present study aims to know the factors influencing for the consumption of processed food among working women and to know the health outcomes in it. 300 working women were chosen to conduct the research from. Simple random sampling technique were used to identify the respondents among all people. Both primary and secondary data were used. Primary data collected from questionnaire and secondary data collected from E-Journals, Journals, Magazines, Websites etc., To analyse the collected primary data, tools like Simple Percentage, Chi-Square Analysis, Ranking analysis, Correlation and Regression were used. From the study, it is found that most of the respondents choose convenient as the reason for the consumption of processed food. Most of the respondents spend Rs.2001 – Rs.3000 for the consumption of processed food per month. The study concludes that, we need a healthy lifestyle to build up a healthy immune system and to avoid disease.*

**KEY WORDS:** Processed food, working women, health outcomes.

### INTRODUCTION

India's unique culture, which is made up of several regions and states, is reflected in the country's distinct cuisine. Indians traditionally enjoy eating at home, a preference that is shared by both individuals and their respective religions. However, there has been a noticeable change in food consumption patterns among urban Indian households throughout time as a result of both are engaged in occupation and slowly adopting western culture. Consumers are individuals or groups who want to order and utilise purchased items, products, or services primarily for personal, social, family, household or similar requirements that are not directly tied to entrepreneurial activity.

Food processing has developed into one of the fastest-growing businesses worldwide, including in India. In a developing economy like India, the processed food business is still in its infancy.

It is important to eat nutritious foods that meet all of the body's nutritional requirements and to avoid foods as much as possible that include industrial additives that could be detrimental to physical health.

### STATEMENT OF THE PROBLEM

Proposed study is to identify the consumption of processed food and health outcomes among working women. The changing lifestyle of people makes a drastic change in their food. People are more focused on less time taking activity for consumption pattern. Though processed food was fast, it is expensive and there is increased availability of poor nutrient in it. While there's not a problem with including some processed foods as part of a balanced diet, there is growing concern that processed food contain a lot of added salt, sugar and fat and are often low in fibre. So, study is mainly conducted to find the consumption and health outcomes in processed food.

### OBJECTIVES

- To know the socio-economic profile of working women.
- To identify the factors influencing the consumption of processed food.
- To identify the market players in processed food industry.
- To study the health outcome awareness of working women on processed foods.



## SCOPE OF THE STUDY

Each and every research work that has been carried out should have some scope, which will help the management in taking decision regarding the future which again leads to research. The present study has focused on the consumption of processed food and health outcomes among working women. In this study, it has focused on the factors influencing such as price, quality, convenience, time consumption and easy availability of processed food. The study gives an insight into the important factors on purchasing frequency of the processed food.

## RESEARCH METHODOLOGY

According to C.R. Kothari, "Research methodology is a systemized effort to gain new knowledge."

### RESEARCH DESIGN

Research design is the set of methods and procedures used in collecting and analysing measures of variables specified in research problem. Descriptive research design has been followed to conduct the research study.

### SAMPLE SIZE

The sample size for the study is 300 respondents.

### SAMPLING METHOD

The respondents were chosen by using simple random sampling methods. Simple random sampling is a type of probability sampling in which the researcher randomly selects a subset of participants from a population.

## METHODS OF DATA COLLECTION

### SOURCES OF DATA

Both primary and secondary data are used for the data collection.

### PRIMARY DATA

The present study is based on primary data. Questionnaire was the main tool for collecting the primary data.

### SECONDARY DATA

Secondary data required for the study was collected from books, magazines, journals, newspapers, past research, reports and various websites.

## TOOLS FOR ANALYSIS

The tools used for analysis are

- Simple percentage analysis
- Rank analysis
- Chi – square test
- Regression analysis
- Correlation analysis

## LIMITATIONS OF THE STUDY

- The working women were reluctant to give correct information due to time constraint in the preparation of food.
- As the study was done within a limited time, investigator could not select the sufficiently large sample for the study.
- Findings related to this study are purely based on respondent's opinion.

## REVIEW OF LITERATURE

A literature review is a survey of scholarly sources (such as books, journal articles, and theses) related to a specific topic or research question.

(2022) Huda Hameed Kadhim Alabbody "A representative sample of the public's attitudes towards eating processed foods." It is important to eat nutritious foods that meet all of the body's nutritional requirements and to avoid foods as much as possible that include industrial additives that could be detrimental to physical health. 400 people from Baghdad city were randomly chosen for a study. The questionnaire asked about demographics and consumer eating habits with regard to phosphate-added sodas and commercially processed items such as hamburgers, pizza, instant noodles, and soda. The majority of the sample was unaware of the adverse effects of phosphate additions in processed foods and beverages.



**ANALYSIS AND INTERPRETATION**

**SIMPLE PERCENTAGE ANALYSIS**

**Age:**

Table 1 describes the age of the respondents. It is categorized as below 25 years, 26-30 years, 31-35 years and above 36 years.

**Table 1: Age of the respondents**

S. No.	Age	Respondents	
		Number	Percentage (%)
1	Below 25 years	61	20.3
2	26-30 years	91	30.4
3	31-35 years	93	31
4	Above 36 years	55	18.3
	<b>Total</b>	<b>300</b>	<b>100</b>

**Sources: Primary data**

**Interpretation**

Table 1 shows that out of the total respondents taken for the study, 61 (20.3%) respondents belong to the age group of below 25 years, 91 (30.3%) respondents belong to the age group of 26-30 years, 93 (31%) respondents belong to the age group of 31-35 years and 55 (18.3%) respondents are above 36 years.

**Inference:**

It is concluded that majority (31%) of the respondents belong to the age group of 31-35 years.

**Reasons for consuming processed food products**

Table 2 describes the reasons for consuming processed food products of the respondents. It is categorized taste, convenient, time saving and easy to make.

**Table 2: Reasons for consuming processed food products of the respondents**

S. No.	Reasons for consuming processed food products	Respondents	
		Number	Percentage (%)
1	Taste	103	34.3
2	Convenient	121	40.4
3	Time saving	51	17
4	Easy to make	25	8.3
	<b>Total</b>	<b>300</b>	<b>100</b>

**Source: Primary data**

**Interpretation**

Table 2 shows that out of the total respondents taken for the study, 103 (34.3%) respondents choose taste as the reason for the consumption of processed food, 121 (40.4%) respondents choose convenient as the reason for the consumption of processed food, 51 (17%) respondents choose time saving as the reason for the consumption of processed food and 25 (8.3%) respondents choose easy to make as the reason for the consumption of processed food.

**Inference**

It is concluded that majority (40.4%) of the respondents choose convenient as the reason for the consumption of processed food.

**Taste of processed food**

Table 3 describes the taste of processed food of the respondents. It is categorized as highly satisfied, satisfied, neutral, unsatisfied and highly unsatisfied.

**Table 3: Taste of processed food**

S. No.	Taste of processed food	Respondents	
		Number	Percentage (%)
1	Highly satisfied	100	33.3
2	Satisfied	105	35
3	Neutral	73	24.3
4	Unsatisfied	16	5.4
5	Highly unsatisfied	6	2
	<b>Total</b>	<b>300</b>	<b>100</b>

**Source: Primary data**



### Interpretation

Table 3 shows that out of the total respondents taken for the study, 100 (33.3%) respondents were highly satisfied with the taste of processed food, 105 (35%) respondents were satisfied with the taste of processed food, 73 (24.3%) respondents were neutral in the taste of processed food, 16 (5.4%) respondents were unsatisfied with the taste of processed food and 6 (2%) respondents were highly unsatisfied with the taste of processed food.

### Inference

It is concluded that majority (33.3%) of the respondents were highly satisfied with the taste of processed food.

### Health outcomes of consuming processed food:

Table 4 describes the health outcomes of consuming processed food of the respondents. It is categorized as diabetes, obesity, digestive problem and high blood pressure.

**Table 4: Health outcomes of consuming processed food**

S. No.	Health outcomes of consuming processed food	Respondents	
		Number	Percentage (%)
1	Diabetes	53	17.7
2	Obesity	116	38.7
3	Digestive problem	105	35
4	High blood pressure	26	8.6
	<b>Total</b>	<b>300</b>	<b>100</b>

Source: Primary data

### Interpretation

Table 4 shows that out of the total respondents taken for the study, 53 (17.7%) respondents choose diabetes as a health outcome of consuming processed food, 116 (38.7%) respondents choose obesity as a health outcome of consuming processed food, 105 (35%) respondents choose digestive problem as a health outcome of consuming processed food and 26 (8.6%) respondents choose high blood pressure as a health outcome of consuming processed food.

### Inference

It is concluded that majority (38.7%) of the respondents choose obesity as a health outcome of consuming processed food.

### Information they see in the processed food

Table 5 describes the information they see in the processed food of the respondents. It is categorized as added sugar/salt, proteins, fat and carbohydrates.

**Table 5: Information they see in the processed food**

S. No.	Information they see in the processed food	Respondents	
		Number	Percentage (%)
1	Added sugar/salt	83	27.7
2	Proteins	117	39
3	Fat	60	20
4	Carbohydrates	40	13.3
	<b>Total</b>	<b>300</b>	<b>100</b>

Source: Primary data

### Interpretation

Table 5 shows that out of the total respondents taken for the study, 83 (27.7%) respondents see added sugar/salt in the processed food, 117 (39%) respondents see proteins in the processed food, 60 (20%) respondents see fat in the processed food and 40 (13.3%) respondents see carbohydrates in the processed food.

### Inference

It is concluded that majority (39%) of the respondents see proteins in the processed food.



**RANK ANALYSIS**

Factors influencing the consumption of processed food products by the respondents:

**Table 6: Factors influencing the consumption of processed food products by the respondents**

Factors	1	2	3	4	5	6	7	8	9	10	Total score	Ranks
<b>Culture/change in lifestyle</b>	35 (350)	19 (171)	36 (288)	44 (308)	72 (432)	11 (55)	22 (88)	24 (72)	16 (32)	21 (21)	300 (1817)	<b>6</b>
<b>Cost</b>	11 (110)	49 (441)	44 (352)	71 (497)	32 (192)	2 (10)	31 (124)	28 (84)	18 (36)	14 (14)	300 (1860)	<b>4</b>
<b>Convenient</b>	91 (910)	32 (288)	67 (536)	31 (217)	32 (192)	28 (140)	6 (24)	10 (30)	2 (4)	1 (1)	300 (2342)	<b>2</b>
<b>Easy availability</b>	52 (520)	111 (999)	27 (216)	43 (301)	24 (144)	14 (70)	18 (72)	5 (15)	3 (6)	3 (3)	300 (2346)	<b>1</b>
<b>Time saving</b>	56 (560)	45 (405)	62 (496)	36 (252)	48 (288)	22 (110)	5 (20)	14 (42)	8 (16)	4 (4)	300 (2193)	<b>3</b>
<b>Income</b>	4 (40)	14 (126)	9 (72)	10 (70)	16 (96)	31 (155)	10 (40)	20 (60)	62 (124)	124 (124)	300 (907)	<b>10</b>
<b>Passion for cooking</b>	8 (80)	11 (99)	8 (64)	15 (105)	10 (60)	5 (25)	40 (160)	20 (60)	114 (228)	69 (69)	300 (950)	<b>9</b>
<b>Taste</b>	55 (550)	15 (135)	16 (128)	34 (238)	12 (72)	99 (495)	16 (64)	37 (111)	11 (22)	5 (5)	300 (1820)	<b>5</b>
<b>Hunger</b>	15 (150)	50 (450)	10 (80)	11 (77)	30 (180)	27 (135)	94 (376)	27 (81)	31 (62)	5 (5)	300 (1596)	<b>7</b>
<b>Meal pattern</b>	8 (80)	9 (81)	48 (384)	8 (56)	12 (72)	42 (210)	46 (184)	94 (282)	10 (20)	23 (23)	300 (1392)	<b>8</b>

**Interpretation**

It could be observed from the table 6 factors influencing the consumption of processed food products by the respondents has been calculated.

- According to 300 respondents, easy availability is placed as FIRST RANK.
- According to 300 respondents, convenient is placed as SECOND RANK.
- According to 300 respondents, time saving is placed as THIRD RANK.
- According to 300 respondents, cost is placed as FOURTH RANK.
- According to 300 respondents, taste is placed as FIFTH RANK.
- According to 300 respondents, culture/change in lifestyle is placed as SIXTH RANK.
- According to 300 respondents, hunger is placed as SEVENTH RANK.
- According to 300 respondents, meal pattern is placed as EIGHTH RANK.
- According to 300 respondents, passion for cooking is placed as NINTH RANK.
- According to 300 respondents, income is placed as TENTH RANK.

**Inference**

Majority of the respondent’s influencing factor is easy availability and income is last in ranking.

**CHI – SQUARE ANALYSIS**

Relationship between frequency of purchase and health outcomes of consuming processed food of the respondents:

**Table 7**

Relationship between frequency of purchase and health outcomes of consuming processed food of the respondents

Frequency of purchase	Health outcomes of consuming processed food				Total
	Diabetes	Obesity	Digestive problem	High blood pressure	
<b>Daily</b>	9	21	23	5	58
<b>Weekly</b>	22	56	40	12	130
<b>Monthly</b>	18	33	31	7	89
<b>Occasionally</b>	4	6	11	2	23
<b>Total</b>	53	116	105	26	<b>300</b>



To find out the association between frequency of purchase and health outcomes of consuming processed food of the respondents, chi-square test is used and result is given below.

**Hypothesis**

H<sub>0</sub>: There is no significant relationship between frequency of purchase and health outcomes of consuming processed food of the respondents.

H<sub>1</sub>: There is significant relationship between frequency of purchase and health outcomes of consuming processed food of the respondents.

**Chi-square test**

Factor	Calculation value	Df	Table value	Remarks
Frequency of purchase	4.487 <sup>a</sup>	9	16.92	Accepted

**Interpretation**

It is clear from the above table that the calculated value of chi-square is less than the table value. Hence the hypothesis is accepted stating that there is no significant relationship between frequency of purchase and health outcomes of consuming processed food of the respondents.

**REGRESSION ANALYSIS**

**Relationship between age and reasons for consuming processed food of the respondents:**

**Hypothesis:**

H<sub>0</sub>: There is no significant impact on the age and the social determinant that influence the consumption of processed food by the respondents.

H<sub>1</sub>: There is a significant impact on the age and the social determinant that influence the consumption of processed food by the respondents.

**Table 8: Model Summary of Regression**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.067 <sup>a</sup>	.004	.001	1.04090

Predictors: (Constant), age

**Table 9 ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.457	1	1.457	1.344	.247 <sup>b</sup>
Residual	322.873	298	1.083		
Total	324.330	299			

a. Dependent Variable: social determinant

b. Predictors: (Constant), age

**Table 10 Coefficients**

Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	2.340	.159		14.739	.000
Age	-.069	.059	-.067	-1.160	.247

Dependent Variable: social determinant

**Interpretation**

Table 8 shows that R square value is 0.004, which means that independent variable i.e., age causes 0.4% changes in the dependent variable i.e., social determinant.

Table 9 anova results that p-value is .247 which is greater than 0.05. It shows that there is no significant impact between age and social determinant that influence the consumption of processed food by the respondents.

Table 10 shows the coefficient results. As indicated that the beta value is -.067 which means that the change in independent variable i.e. age by one unit will bring about changes in the dependent variable i.e. social determinant by -.067 units.

Furthermore, the beta value is negative, which indicates the negative impact between two variables or in other words, when independent variable increases by one unit the dependent variable decreases by -.067 units.





## CORRELATION ANALYSIS

**Relationship between educational qualification and preference of branded processed food products by the respondents:**

### Hypothesis:

H<sub>0</sub>: There is no significant relationship between educational qualification and preference of branded processed food products by the respondents.

H<sub>1</sub>: There is a significant relationship between educational qualification and preference of branded processed food products by the respondents.

**Table 11 Correlations**

		<b>Educational qualification</b>	<b>Preference of branded processed food products</b>
<b>Educational Qualification</b>	Pearson Correlation	1	.138
	Sig. (2-tailed)		.017
	N	300	300
<b>Preference of branded processed food products</b>	Pearson Correlation	.138	1
	Sig. (2-tailed)	.017	
	N	300	300

Correlation is significant at the 0.05 level (2-tailed).

### Interpretation

Table 11 shows that correlation of educational qualification and preference of branded processed food products was found to be weakly positive and statistically significant ( $r=.138$ ,  $p<.05$ ). Hence H<sub>1</sub> was supported. This shows that an increase in educational qualification would lead to an increase in the preference of branded processed food products.

## SUGGESTIONS

- Reduce the amount of processed foods you eat. The more processed foods you eat, the more preservatives you will eat too. Shop for foods like fresh fruits and vegetables, dries legumes and plain poultry, meats, seafood, milk and eggs.
- Eating processed foods on occasion is fine.
- Choose to steam, bake, grill, braise, boil or microwave your foods, rather than deep fry them.
- The standard of the food products should be increased. The government should implement strict rule for the safety of processed food products.
- Though processed food is easily available these days, it is important to check the ingredients that are added in it.

## CONCLUSION

Time is an important resource for all working women in the current world, when life moves quickly. Everyone's daily life involves processed food, but working women's lives are particularly impacted. Due to the influence of the West, Indian eating patterns have evolved, and consumption of these foods is increasing. Women frequently eat these things at home. The market offers a wide variety of processed goods, and they have become a staple of daily living. Working women are more likely to eat processed foods now than they were 20 years ago because of the significant changes in lifestyle, education, income, and consumption habits of Indian consumers. Extending the menu items as a result of efforts to improve branded processed food gave rise to a platform for food innovation and made it simpler to serve a wide range of goods. Working women's increased consumption of processed food is a result of urbanisation, the breakdown of the traditional joint family system, convenience, changing lifestyles, and rising levels of middle-class luxury. The majority of respondents are knowledgeable about the various processed food products and their effects on health. The benefits of consuming it are taste, convenience, and time savings. The link between working women and food and other necessities has undergone significant change, not only in the way that products are purchased but also in the way they are consumed. The study concludes that, we need a healthy lifestyle to build up a healthy immune system and to avoid disease.

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SJIF Impact Factor (2023): 8.574 | ISI I.F. Value: 1.241 | Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)

## **EPRA International Journal of Research and Development (IJRD)**

Volume: 8 | Issue: 5 | May 2023

- Peer Reviewed Journal

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