

# A COMPARATIVE STUDY ON PREPARATION OF CONVENTIONAL AND CONVENIENCE FOODS

By

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## **INTRODUCTION**

## I INTRODUCTION

"If Women are neglected, humanity is deprived of half of its energy and creativity"

- Indira Gandhi.

A large number of Indian women are slowly emerging out of a system that had suppressed them for centuries. Today they are considered important in each and every activity. This in turn has left various opportunities for women to enter into fields which has so far been considered as the exclusive right of men.

The woman of today is expected to fulfil many social, cultural and moral obligations. Her primary biological functions of motherhood is slowly reducing and its place is gradually being taken away by the manifold activities. Living in a nuclear family and performing the multiple roles takes away much of her available time and energy. Besides the present day demands, responsibilities, growing individualism and economic stress have made women take up jobs outside the home, still further increasing the stress and strain shouldered by her.

The dual role played by the employed women has made a great impact on her, her family and on the performance of

**REVIEW OF LITERATURE**

## II REVIEW OF LITERATURE

Review of the literature Pertaining to 'A Comparative Study on Preparation of Conventional and Convenience Foods' is dealt under the following out lines:

- A. Changing Role of Indian Women
- B. Need for the Management of Time and Energy by the Homemakers
- C. Meaning and Classification of Convenience Foods
- D. Role of Convenience Foods in Today's Home and
- E. Studies Conducted on Convenience Foods.

### A. Changing Role of Indian Women:

Women today involve in sharing the power with men, in decision making and implementation at informal and formal sector (Agarwal, 1983). Joshi, (1989) expresses that status of women is intimately connected with their economic position, which depends on opportunities for participation in economic activities. The position of women has varied in different periods of Indian history. Traditional India had seen a women only as a member of the family or group - as daughters and mothers and not as an individual with an identity or rights of her own (Mazumdar, 1981).

Women's position was considerably better during the

vedic period than during later periods. In the midieval period women were mostly required to live within the premises of their houses to cook food and to feed and take care of their children and other members of the family (Aaurya, 1988). In pre independence India a women's only goal was to marry and multiply (Kashyap et al., 1990). Our freedom movement led women to the fore front in every walk of life. Women played an active and important role in the India's freedom struggle. Thus women's struggle for equality took a big step forward with the coming of indpendence (Deshpande, 1989).

Aaurya (1988) states that the freedom movement marked the beginning of an era, when middle class Indian women dared to come out of their shells, not in singledom but in significant number.

Time and socio-economic changes, urbanisation as a major dimension of social change, transition in the family structures had changed the role of men and women today. Many are taking up whole time or part time jobs (Reddy, 1986 and Rama, 1990). Rao (1984) stresses that education and employment of women has important implications in the development of our nation.

Vasisht and Dhesi, (1976) and Swaminathan, (1988) reveal that today, the women's role is entirely different

from that of her counterparts in the past and they have to perform many roles in their everyday life just as a women, as a productive worker, a mother, a wife, a daughter, a friend, a household worker and a homemaker at the same time.

Ogale, and Kulkarni, (1977) and Thyagarajan, et al., (1978) feel that a women while seeking employment she has to manage all kinds of resources available to her and also consider the impact that the employment might have on the family.

Vasisht and Dhesi (1976) also affirm that the homemaker must manage her available time and energy effectively to perform the activities outside and inside the home satisfactorily.

#### B. Need for the Management of Time and Energy by the Homemaker:

Home making involve a variety of responsibilities duties and tasks. The homemaker like and other individual is endowed with 24 hours a day. She meets the demand of responsibilities affiliated with her role as a homemaker along with other demands on her time and thus distributes her time over work, leisure, sleep and for rest (George and Bafna, 1982). Full time homemakers have fewer demands on their time. They could give enough time for homemaking activities when compared to the gainfully employed homemakers who could not afford to do so (George and Bafna, 1982).

The sky rocketing prices, the craze for raised standard of living, social insecurity, the need to escape from the suffocative atmosphere in the in-laws house, the aspiration to be independent, the spontaneous desire to reap the benefit of education, all have made her to take up outside employment thus increasing the demand on women's energy and time (Mathew, 1988).

Working women are forced to spend major part of her time in the place of employment. Besides she has to shoulder dual responsibilities as mother and working women (Mathew, 1990).

Dhesi and Sandhu (1975) classified house work into food preparation, care of clothing, equipment, children and other members of the family. Time is a guide which helps in carrying out activities and distribution of work in proper manner. George and Bafna (1982) state that size, type of the family, locality, economic status, composition of the family of the homemaker, influences the extent to which she uses her time on these homemaking activities and lesiure time activities.

Gross et al., (1973) opine that time management is a highly personal matter. Nevertheless, there are ways of facilitating it both through applying the managerial process to it and using some specific tools like work simplification techniques.

Work simplification is the organised use of common sense to find easier ways of doing work and using these methods definitely helps in reduction of time for household tasks (Vijaya Shamier and Tharachandrika, 1971, and Gross et al., 1975).

Steidl (1975) says that technology has proved the potential for both decrease in the amount of physical work and increase in cognitive work. Many machines are developed to speed our daily routines and to provide additional leisure to homemakers (Hari, 1985). Needham and Strong, (1970) listed some equipment for food preparation like the peeler, grater, grinder, fireless cooker, pressure cooker, washing machine, electrical cleaner, dish washer, vaccum cleaner, and similar items as very useful and save time and labour. Most of the electrical appliances used in Indian homes are in the area of food preparation activities.

Preparation of meal is both complicated and attention demanding, many drudgery-reducing household devices are made to reduce the stress of working women (Swaminathan, 1988). Devaki and Rajagopal (1970), pointed out that cooking may be carried out satisfactorily without too much strain, if the kitchen is equipped with efficient utensils; proper kitchen plan, labour saving equipment and the use of convenience foods.

The underlying purpose of instant food mixes is to save time and energy required for homemaking. With increasing urbanisation number of working women has increased giving rise to wide use of convenience foods like processed and dehydrated cereals, pulses, readymixes etc., which need less time and labour to cook. (Ananthaswamy, et al., 1970).

With time at a premium the urban population is prone to show a tendency to patronise convenience food ready to serve foods and are creating demands for ready to serve forms in households (Singh, 1986 and Potty, 1988). Besides changing life style and value had led to considerable changes in eating habit over the last few years. Hand in hand with a strong demand for fast and take away foods, there has been a marked up turn in popularity for convenience food in India where there has been little or no growth in percapita expenditure on food in general (Baisya, 1988).

#### C. Meaning and Classification of Convenience Foods:

In the newly emerging era of fast and convenience foods, ready mixes or instant foods are becoming increasingly popular among Indian households (Singh, Shurpalekar, 1986).

Keister, (1977) state that convenience foods really means any food that makes work easier.

Lane and Hartesvelt, (1983) defines the term convenience

foods generally refers to food that are partially or wholly prepared by a manufacturer with the final heating and serving.

Mintal, (1986) expresses a term ready meal which has been interpreted by him as readiness (very little preparation and cooking required), completeness (as a meal excluding desserts), generally served hot and packed content which serve one or two persons only.

Powers (1979) classified the convenience foods into two categories, convenience components and total convenience foods. Convenience components are foods that have been partially processed but can be manipulated or added to another food in various unique ways. By contrast a "total convenience food" is a processed food which, when cooked are served.

Baisya (1988) expresses that the word instant has been used as a different type of premixes to signify the product either as ready to eat food or semi processed foods. He further divided the premixes that are available in market into two classes-Indian type products and Westernised or sophisticated products. Indian type products included.

- 1) Spice mixes including curry powder, 2) Snack mixes or idly mix, sambar mix and 3) Desert and sweet mixes (e.g) gulabjamoon, halwa etc. Westernised or sophisticated products included
- 1) Soup mixes e.g. tomato soup, mixed vegetable soup, chicken soup

- 2) Beverage mix e.g. instant coffee mix, chocolate drinks,
- 3) Desert mix e.g. custard powder, jelly crystals and
- 4) Soft drink mixes.

Subramanyan (1976) classified the convenience foods into (1) Ready to serve foods of different classes e.g. baked, canned and boiled food products and (2) Pre-cooked and other classes of emergency foods e.g. pre-cooked rice, dhal, and concentrated foods.

Minor and Cichy (1984) say that convenience foods are available in three forms bulk, preportioned and preplated. Bulk forms require portioning prior to or after heating. Preportioned forms only required assembly and heating. The preplated products only need heating prior to serving. The market forms of convenience foods can be further subdivided as completely prepared foods or either ready to serve when purchased or ready to serve after undergoing a simple production process. This may involve mixing or rethermalization. Partially prepared are ready to combine with one or more ingredients prior to heating or chilling and serving.

Kinder (1973) classified the convenience as finished foods and as semi prepared foods. Finished foods are ready for eating immediately or after heating. Semiprepared foods include mixes, they have some service yet to be performed.

Dilys Wells (1969) grouped the convenience foods by their methods of manufacture into 5 main groups. 1) quick frozen 2) canned 3) dehydrated 4) manufactured products and 5) prepared ingredients. He further divided the convenience foods into three main groups 1) instant or very quickly prepared 2) quick to prepare foods that require reconstitutions and varying degrees of cooking and 3) short-cut cookery products, that require a considerable degree of cooking or which have to be incorporated with other ingredients.

Today development of ready mixes for several traditional snack foods offering convenience to homemaker has become a fast growing trend.

#### D. Role of Convenience Foods in Today's Home:

By using convenience foods there can be quite considerable saving in both time and effort. These foods have been a boon to working wives, busy mothers, with small children and all families at various times.

The total time used in food preparation consists of active time and inactive time. The use of premixes reduces active time by eliminating nearly all measuring time and mixing time. Ready to use products reduce active time. Total time is reduced as active time diminishes (Kinder, 1973).

According to Minor and Cichy (1984) using of convenience foods are considered to be advantageous for the following reason 1) constant quality 2) constant yield 3) constant labour costs 4) waste elimination and 5) elimination of handling costs.

Scada and Kiefer, (1980) suggest that one can try premixes if it saves considerable time and if the price seems reasonable. Along with other advantages these foods may add to the variety of main dish items served in households with inexperienced cooks.

Strang (1969) express that the convenience foods give the housewife a choice of interesting dishes which would be complicated to prepare in her own kitchen.

Fuller (1977) listed the following points to be considered in mind while selecting the convenience foods:

1. Labour: The cost and the availability of kitchen labour must be assessed.
2. Time: The speed of preparation must be considered in relation to service standards.
3. Space: The lesser storage and handling space needed when using processed foods is a consideration to be borne in mind.
4. Hygiene: Ready-to-use foods have most, if not all

of their waste matter removed. Elimination of such refuse before food reaches the kitchen reduces food handling and avoids or eases waste disposal problem.

5. Cost: Frequently cost is the deciding factor whilst the saving of labour is usually the most apparent economy, the availability, to control food quality, yield portion, size and waste are aspects which enable to regulate final operating costs more and more accurately.

E. Studies Conducted on Convenience Foods:

Ghoshal (1990) referred that the processed production consists of jams, jellies, fruit juices/pulps, ready to serve fruit beverages has gone up from 1.4 lakh tonnes in 1984 to 1.8 lakh tonnes in 1986 of which one third was exported.

Chaudhuri (1989) revealed that the total processed foods market in India is put at around Rs.12,000/- to Rs.15,000/- crores. Of this, the convenience foods is estimated to be Rs.300 crores. It is growing according to an estimate at an aggressive 50 per cent per year.

A study, in America showed that while home working leads to an average 75 per cent loss of vitamins, present

commercial processing, because of the speed of handling and care exercised at every stage leads to an average nutrient loss of 25 per cent only. More over vitamins and minerals in suitable averages if necessary, can be added in a factory. A good example is fruit juice (Acharya, 1976).

Minakshi Singh (1978) in her study revealed that all the families she surveyed, were aware of convenience foods and majority of 50 per cent households used papad and masala powder. There were only 13 convenience foods available in the market then.

Radha Devi and Ravindran (1985) presented the fact that working women spend less time than non working women in household activities especially in cooking for frequent use of readymade foods and readymade powder of spices, pulses or grains which non working women most often get done at home and are no doubt time consuming activities.

## **METHODOLOGY**

### III METHODOLOGY

'A Comparative Study on Preparation of Conventional and Convenience Foods' consisted of the following major aspects:

- A. Market Survey to Find out the Availability of Convenience Foods in the Selected Shops
- B. Household Survey to Collect Information on the Awareness and Use of the Convenience Foods in the Selected Households and
- C. Cooking Experiments using Convenience Foods.

A. A Market Survey to Find out the Availability of Convenience Foods in Selected Shops:

A market survey was necessary to gather information regarding the type of convenience foods available in the market. The survey included the following steps:

- 1. Selection of shops
- 2. Collection of data
- 3. Conducting the study and
- 4. Analysis of data

1. Selection of Shops:

Coimbatore is a highly industrialized city covering a large area with a number of busy shopping centres. Out of which the investigator had chosen 20 departmental stores in

three busy shopping areas namely Gandhipuram, R.S.Puram and Saibaba Colony.

## 2. Collection of data:

Among the three tools for collecting data namely observation, questionnaire and interview schedule methods, Rossi et al., (1983) pointed out that, "the face to face interview has some definite advantages over all other forms of data collection as the interviewer can see the respondent and their surroundings."

Hence the investigator selected the interview schedule method to gather information in the selected 20 shops. An interview schedule was framed to collect information on availability of different types, brands of convenience foods, and widely sold convenience foods in the selected shops.  
(Appendix-I)

## 3. Conducting the Survey:

The investigator approached the shop keepers at the time convenient to them especially between 2.30 p.m. and 4.30 p.m. The purpose of the study was explained to them and the details recorded using the interview schedule.

## 4. Analysis of data:

The data obtained from the shopkeepers by using interview schedule were analysed and thus the information served as a basis

to frame the questionnaire for conducting the household survey and also to select dishes to be prepared for conducting the experiment.

B. A Household Survey to Collect Information on the Awareness and Use of the Convenience Foods in Selected Households:

This aspect of the study included the following criteria:

1. Selection of area
2. Selection of sample
3. Framing the tool
4. Conducting the survey and
5. Interpretation of collected data.

1. Selection of area:

Surveys are mainly conducted for the purpose of collecting data from individuals about their households or about their larger social units (Rossi et al., 1983). The investigator had chosen the households located in and around the city of Coimbatore - Gopalapuram, Saibaba Colony, R.S.Puram, Ramalingam Colony, Nallampalayam and P.N.Pudur to conduct the household survey. Ease of approach and co-operation rendered by homemakers were the major reason in selecting these households.

2. Selection of sample:

George and Bafna (1982) feels that homemakers from high

income group can utilize more paid help in preparing food than their counterparts. Whereas low income cannot afford to spend money either on servant or on convenience foods due to its high cost. Hence the investigator concentrated only on the middle income group both full time and employed homemakers to find out their awareness and use of convenience foods.

Venkata Subramanian (1990) classified the middle classes based on their monthly income as lower middle class having a monthly income of Rs.2,000 - 3,000 and middle middle class has an income between Rs.3,000 - 5,000 and the upper middle income has an income of Rs.5,000 - 10,000 a month. Hence 50 homemakers from each group with equal distribution of employed and full time homemakers were taken into consideration. Thus a total of 150 households had been considered for the study.

### 3. Framing the tool:

Shukla and Gulson (1983) remarked that "by the direct personal interview method data are collected by the investigator personally by asking questions pertaining to the enquiry from persons whom the information has to be obtained." An interview schedule was framed and used to conduct the household survey. (Appendix-II)

The interview schedule prepared was pretested by

conducting pilot study in five households. Rossi et al., (1983) explain that a pilot test is usually required to discover the major flaws in a questionnaire before they damage the major study.

In the light of the pilot study the schedule was modified. The final schedule was framed to obtain information from the homemakers on the family background, management of resources - time, money, and energy, awareness of the available convenience foods, use of it and their opinion and suggestion regarding the convenience foods.

#### 4. Conducting the survey:

The selected homemakers were approached personally at a time suitable to them. A good rapport was developed and the purpose of the study was narrated. The interview was conducted at the convenience of the homemakers. The questions on the schedule were asked and the answers were recorded carefully in the prepared interview schedule.

#### 5. Interpretation of collected data:

After the data had been collected it is essential to put the unorganised information in systematic manner in order to obtain the desired results and their interpretation scientifically (Sadhu and Singh, 1986). Sharma et al., (1985) remarks that analysis of the data is the most skilled task of

all stages of the research. Hence the information collected were discussed in an orderly manner and with suitable tables in the Chapter-IV.

### C. Cooking Experiment Using Convenience Foods:

A cooking experiment was conducted to compare the time and money involved in preparing selected dishes by conventional method and by using convenience foods. The purpose of the experiment is to compare the time and money needed to prepare the selected dishes by the conventional method and using convenience foods.

The cooking experiment was conducted based on the following outlines:

1. Selection of dishes to be prepared
2. Performing cooking experiment
3. Analysing the time taken for preparing the selected dishes
4. Analysing the money involved in preparing the dishes and
5. Judging the acceptability of the cooked dishes.

#### 1. Selection of dishes to be prepared:

Ten dishes were selected based on methods adopted in cooking. Four specific methods of cooking-steaming, boiling, frying and roasting were followed for preparing the selected

dishes. Ease of preparation and possibility of preparing the dishes both by the conventional method and using convenience foods were the main criteria considered in selecting the dishes.

The dishes selected based on method of cooking were:

1. Boiling
  - a. Tomato soup
  - b. Payasam and
  - c. Halwa
2. Steaming
  - a. Rava idly and
  - b. Rice sevai
3. Frying
  - a. Deep fat frying
    1. Vadai and
    2. Bhaji
  - b. Shallow fat frying
    1. Adai and
    2. Rava dosai
4. Roasting
  - a. Rava laddoo.

For preparing the selected dishes the raw ingredients required for conventional method and the popular brand of convenience foods were purchased from the reputed shops selected for the market survey.

## 2. Performing the Cooking Experiment:

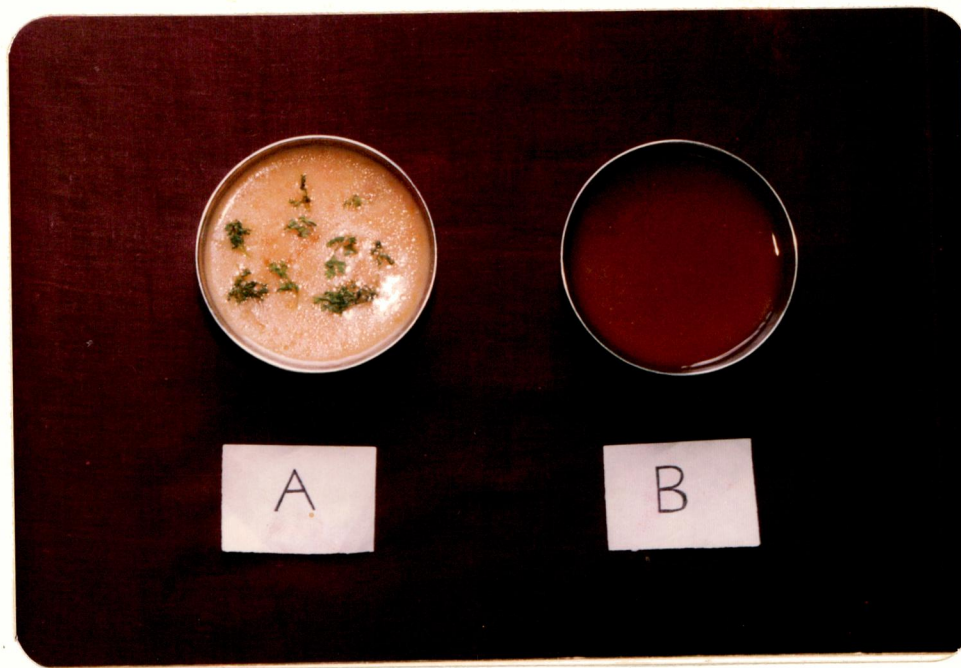
The procedure adopted for preparation of selected dishes were obtained from a standard recipe book. The convenience foods were prepared based on the printed instruction on the packet. The procedure adopted for preparing foods by conventional method is given in (Appendix-III). Only 100gm of ingredients were utilized for preparing the dishes, so as to facilitate the analysis of time and money involved in preparation. The recipes were prepared three times to get accurate results. Figure 1-5 represents the selected dishes prepared using various methods of cooking.

## 3. Analysing the time taken for preparing the selected dishes:

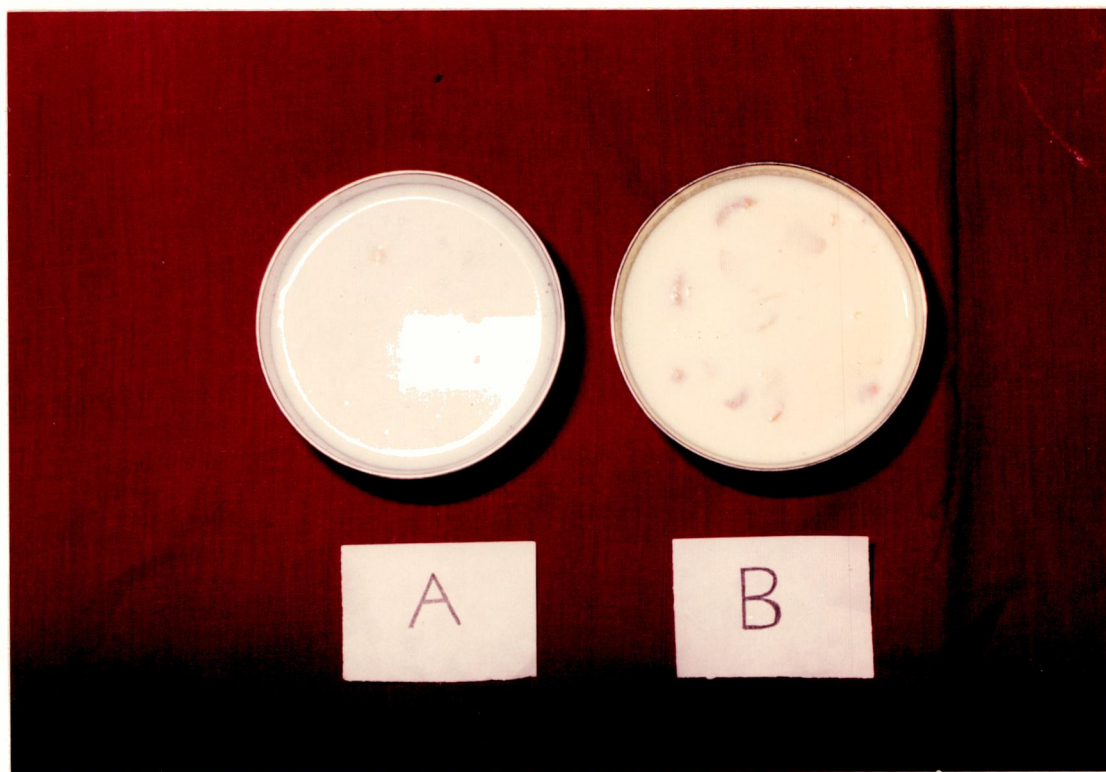
The time taken for preparing the dishes were considered under two aspects. The preparation time and cooking time. The preparation time included activities such as cleaning, cutting, grinding etc. and the cooking time included only the time taken to cook the dish as per its requirement. The recorded value were analysed and discussed in Chapter-IV.

## 4. Analysing the money involved in preparing the dishes:

It is a well known fact that the cost of convenience food is high when compared to foods prepared by using conventional method. But when compared with the cost of prepared food from resturants, convenience foods definitely costs less. Hence the investigator had compared, the cost of 100gms of the selected

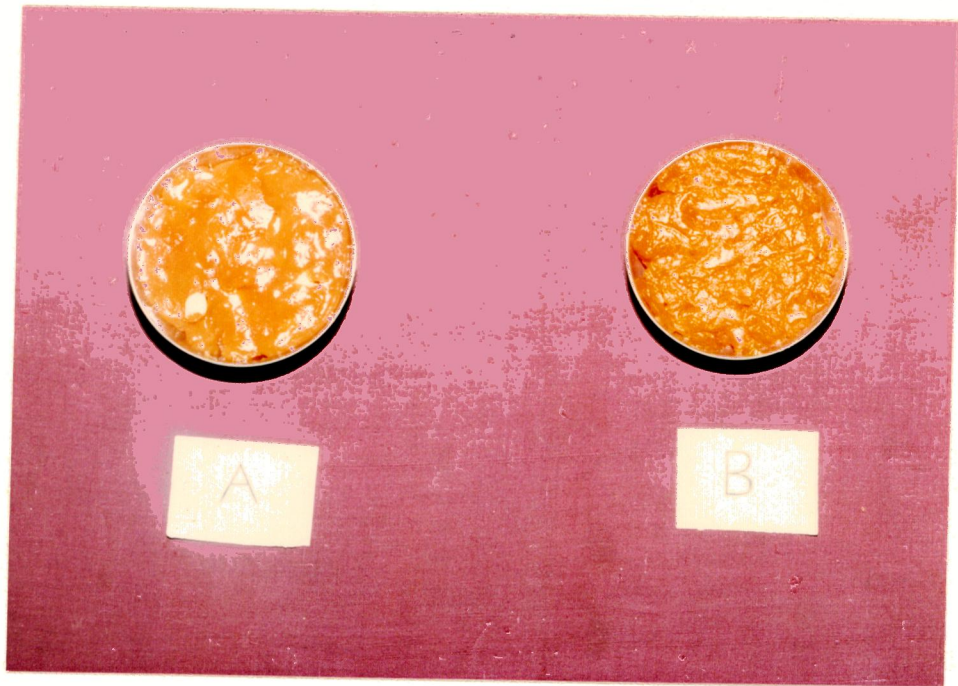


1a TOMATO SOUP

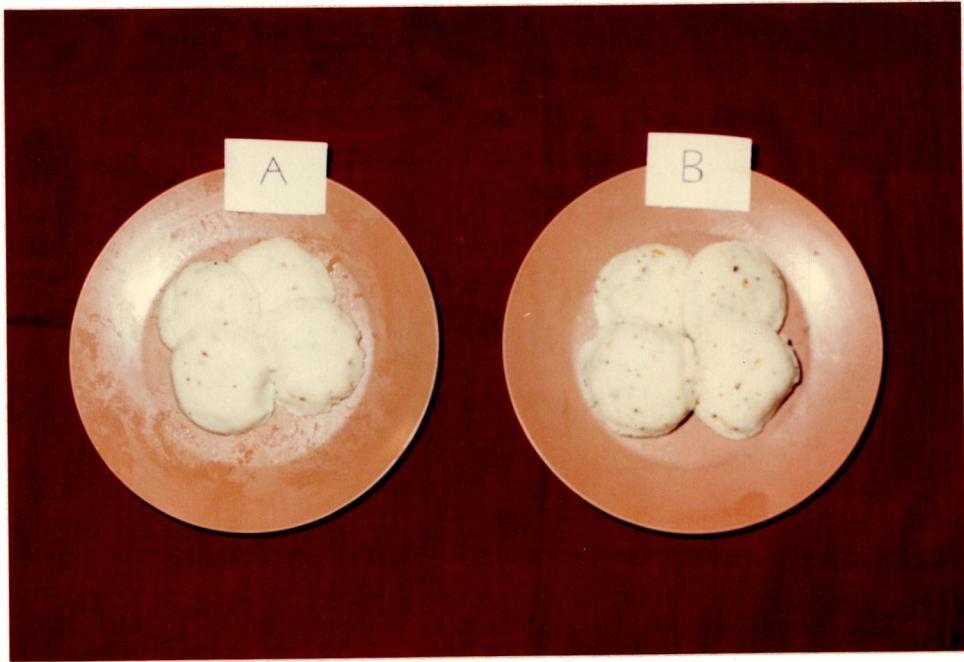


1b PAYASAM

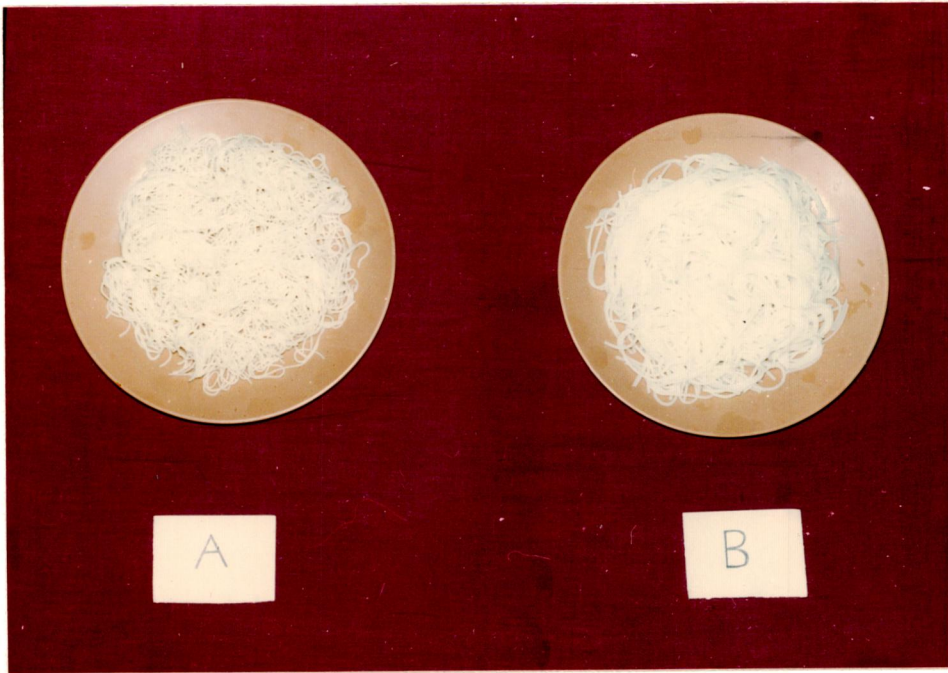
FIGURE-1 ITEMS PREPARED USING BOILING METHOD



1c HALWA

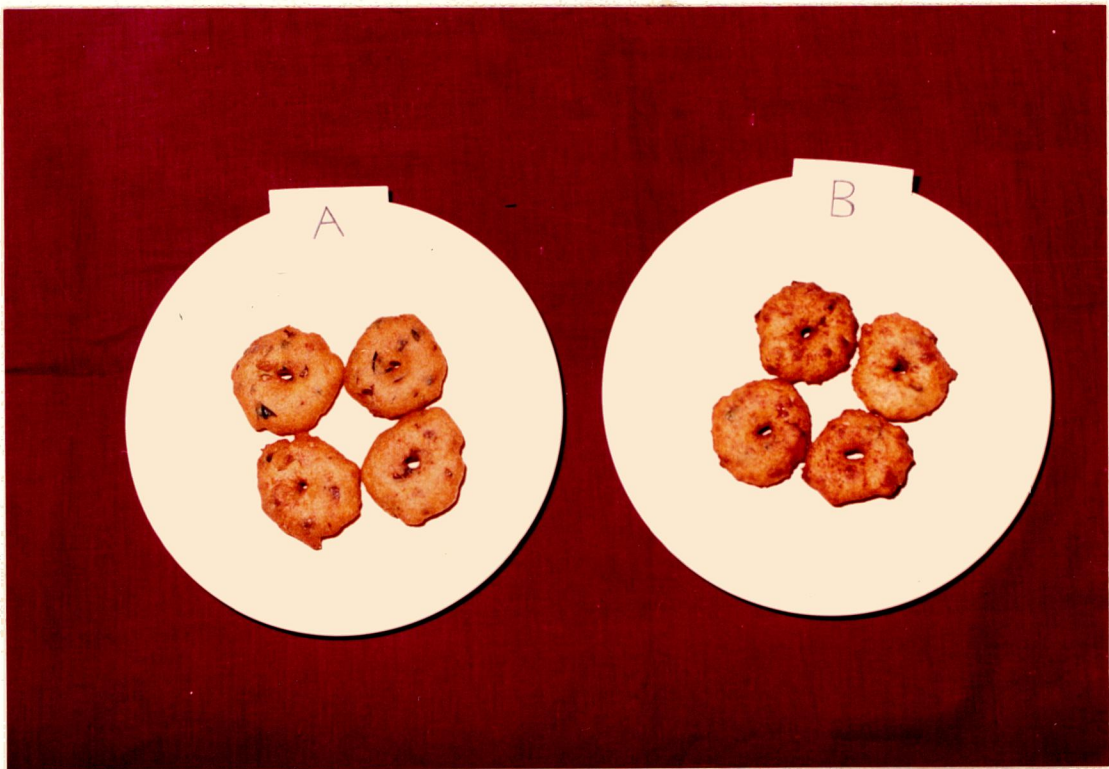


2a RAVA IDLY

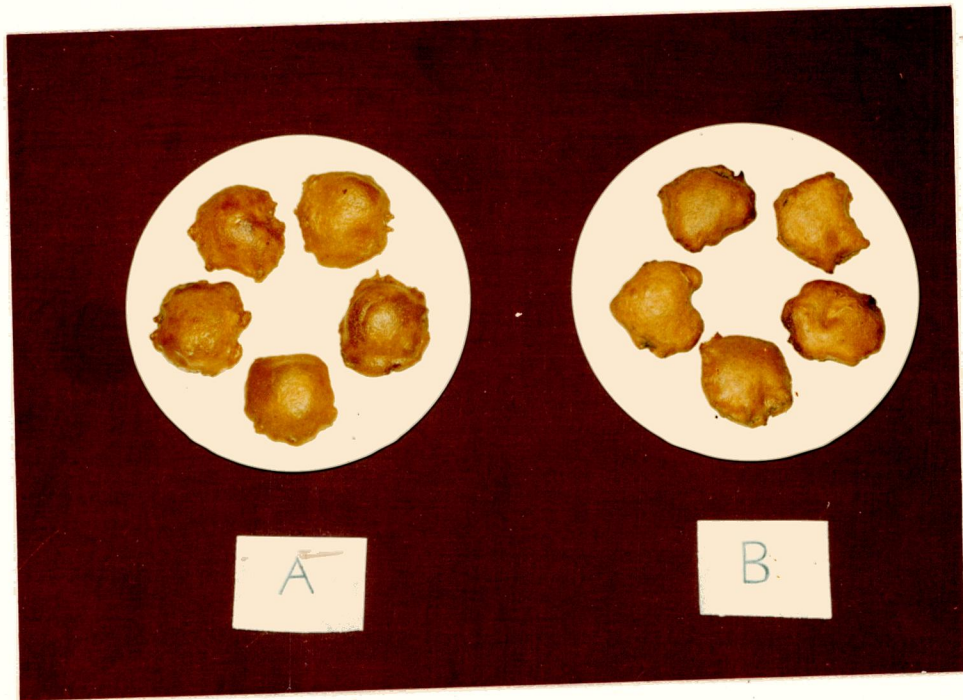


2b RICE SEVAI

FIGURE-2 ITEMS PREPARED USING STEAMING METHOD

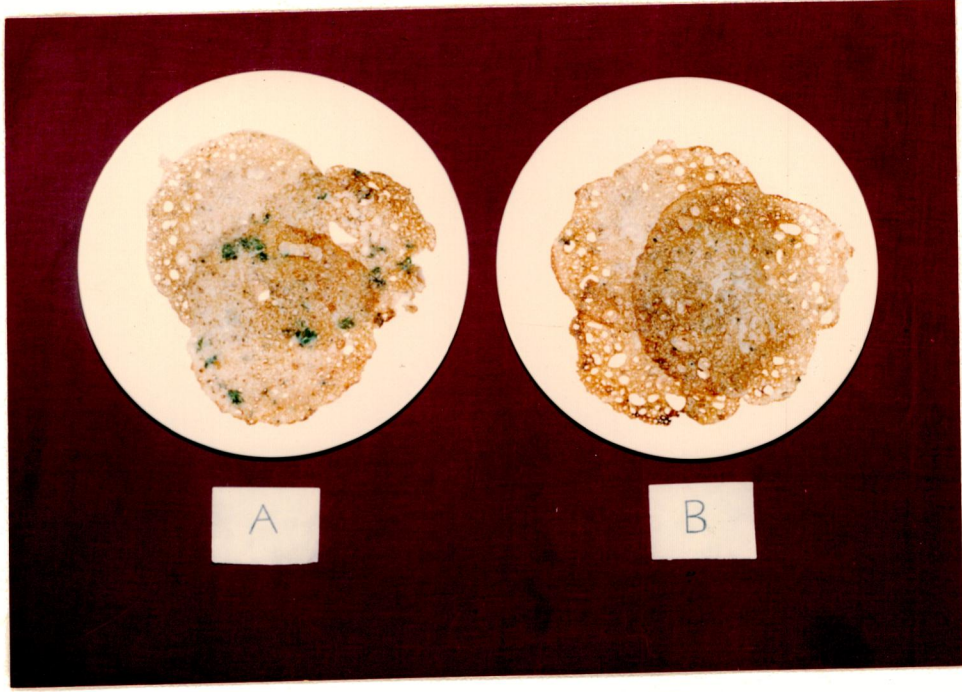


3a VADAI

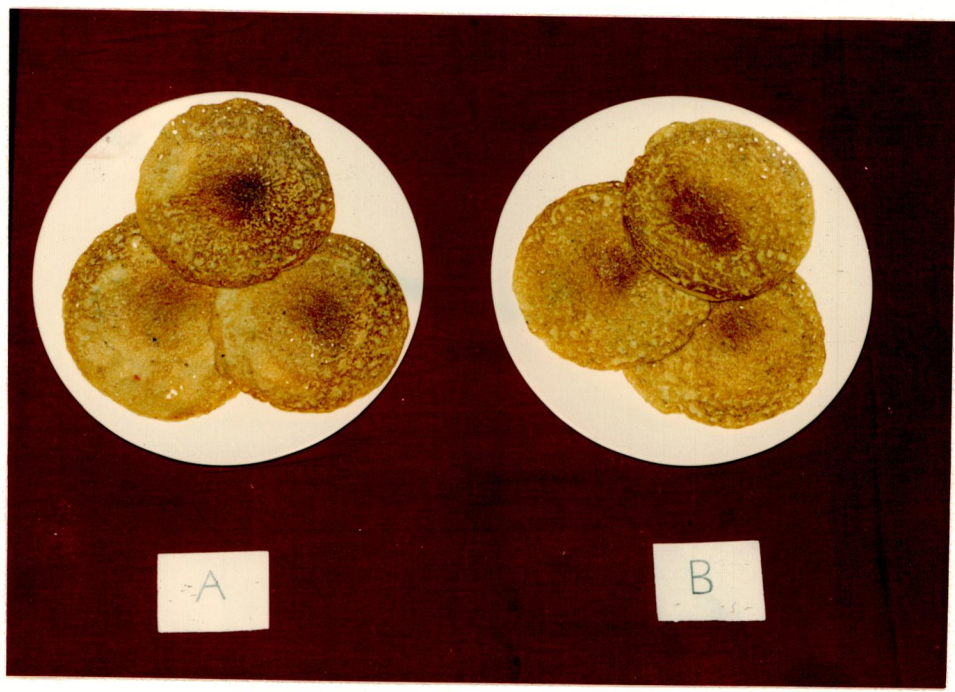


3b BHAJI

FIGURE-3 ITEMS PREPARED USING DEEP FAT FRYING

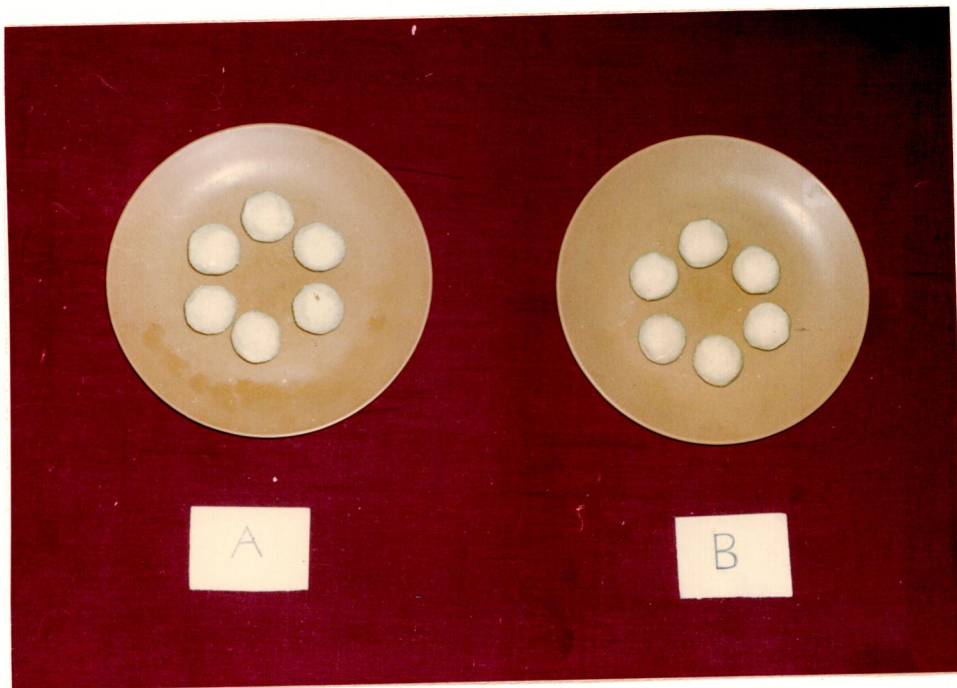


4a RAVA DOSAI



4b ADAI

FIGURE-4 ITEMS PREPARED USING SHALLOW FAT FRYING



A

B

5a RAVA LADOO

FIGURE-5 ITEMS PREPARED USING ROASTING

## **RESULTS AND DISCUSSION**

#### IV RESULTS AND DISCUSSION

The results of 'A Comparative Study on Preparation of Conventional and Convenience Foods' are discussed under three major headings:

- A. Findings of the market survey on the availability of Convenience foods
- B. Findings of the household survey on the use of Convenience foods and
- C. Results of the cooking experiment conducted to compare Conventional and Convenience foods.

##### A. Findings of the Market Survey on the Availability of Convenience Foods:

It was astonishing to see the wide range of convenience foods available in different brands in the market excluding various instant mixes such as, garlic powder, mint chutney powder, puliyotharai podi, paruppu podi and rasam powder and various other masalas. These items were more common items seen in almost all the shops. Other available convenience foods are classified based on methods of cooking adopted in its preparation and discussed below.

##### 1. Convenience foods based on the method of boiling:

The details on the convenience foods available in the

market which adopted the method of boiling for cooking is given in Table-I.

TABLE - I

## AVAILABILITY OF CONVENIENCE FOODS IN THE MARKET (BOILING)

Items	No. of brands available	Popular brands	No. of shops N=20
Icecream	6	Eagle	13
Halwa	3	Best & Orkay	12
Vegetable noodles	2	Maggi	10
Egg noodles	3	Maggi	10
Tomato soup	5	Kissan	8
Mixed vegetable soup	4	Maggi	6
Ragi noodles	1	Proter man	4
Payasam	2	Annapoorna	3
Instant rasam mix	1	MTR	3
Rava uppuma	2	MTR	3
Drinking chocolate	2	Baker's	3
Badam mix	3	Orkay	2
Chicken soup	1	Hi-tech	2

From the Table-I it was evident that icecream mix was very common in the market as it was available in 13 shops in 6 different brands. Halwa mix was also available in 12 shops

in 3 brands and vegetable and egg noodles in 10 shops. Vegetable noodles was available in 2 brands whereas egg noodles was available in 3 brands. The most popular brands among icecream mix was Eagle, halwa mix was Best and Orkay and vegetable and egg noodles was Maggi.

Table I-A gives a list of convenience foods that require steaming, frying and roasting.

TABLE - IA  
 AVAILABILITY OF CONVENIENCE FOODS IN THE MARKET  
 (STEAMING, FRYING & ROASTING)

Items	No. of brands available	Popular brands	No. of shops N=20
<b>Steaming:</b>			
Rice sevai	2	ttk	9
Rava idly	4	Orkay	6
Rice idly	1	Nilgiris	66
<b>Frying:</b>			
<b>Deep fat frying:</b>			
Gulabjamoon	6	Orkay & Best	20
Bhaji	3	Best	9
Vadai	4	Best	6
Theankuzhal	1	Amma's	1
Nada murruku	1	Amma's	1
Omappodi	1	Amma's	1
Jillabi	1	MTR	1
Poori	1	Jothi	1
<b>Shallow fat frying:</b>			
Rava dosai	3	Annapoorna	4
Adai	1	Mami	1
Ragi dosai	1	Nilgiris	1
Dosai	2	MTR	2
<b>Roasting:</b>			
Rava ladoo	1	Amma's	1

Table-IA reveals that more than 15 different foods were available in the market. The details are as follows:

2. Convenience foods based on the method of steaming:

Under steaming as a method of cooking the convenience foods available in the shops were rice sevai, rice idly and rava idly. Instant rice sevai was seen in 9 shops in 2 different brands among which ttk was the most popular brand. Rice idly a very common South Indian dish was available in the form of instant mix in two brands in 6 shops. Among the two brands Nilgiris was common. Rava idly mix was also seen in 6 shops in 4 different brands among which Orkay was the widely sold brand.

3. Convenience foods based on the method of deep fat frying:

Of all the available convenience foods Gulabjamoona mix was common item seen in all the 20 shops surveyed in 6 different brands. Orkay and Best were the popular brands among them. Thenkuzhal, nada murukku (Tape pakoda), omappodi, jilabi and poori mixes were also available but only in one shop and in one brand. This shows that these items were not popular among the homemakers as they are new additions in the market and hence not widely seen in the shops due to its lack of demand.

4. Convenience foods based on the method of shallow fat frying:

Rava dosai mix with three brands were available in four

shops among which Annapoorna seem to be the most popular one. This may be due to the popularity of Annapoorna restaurant and departmental stores in Coimbatore city. Adai, ragi dosai and dosai mixes were also available in one shop. Except dosai all the other items were available only in one brand.

5. Convenience foods based on the method of roasting:

Rava laddoo was the only item available in a shop with Amma's brand.

B. The Findings of the Household Survey on Use of Convenience Foods:

The results of the household survey gathered from selected homemakers are discussed under the following sub-headings:

1. Background information of the selected homemakers
2. Management of resources by the homemakers
3. Awareness on availability of convenience foods
4. Use of convenience foods and
5. Opinion and suggestion regarding convenience foods

1. Background information of the selected homemakers:

The background information includes the type and size of family, age, educational status and occupational status of the selected homemakers. Table-II presents the details on type and size of the family, age and educational status of the homemakers.

TABLE - II  
BACKGROUND INFORMATION OF THE SELECTED HOMEMAKERS

Background information	Percentage of homemakers with income groups							
	LM		MM		HM		Total	
	FH N=25	EH N=25	FH N=25	EH N=25	FH N=25	EH N=25	FH N=75	EH N=75
Family type:								
Joint	8	4	28	36	20	8	19	16
Nuclear	92	96	72	64	80	92	81	84
Family size:								
3 - 4	56	64	52	56	44	80	50	67
5 - 6	40	32	46	44	48	20	42	32
7 and above	4	4	2	-	8	-	8	1
Age of the homemaker:								
21 - 30 years	12	16	24	28	24	4	20	16
31 - 40 years	24	40	48	32	28	40	33	37
41 - 50 years	40	4	12	8	32	40	28	17
51 - 60 years	16	16	16	24	16	16	16	19
61 - years and above	8	24	-	8	-	-	3	11
Educational status:								
Primary	52	-	40	-	12	-	36	17
Secondary	40	60	32	8	44	8	37	25
College and Professional	8	40	28	92	44	92	27	58

LM - Low Middle

FH - Full time homemaker

MM - Middle Middle

EH - Employed homemaker

HM - High Middle

**Family type:**

A majority of 81 per cent and 84 per cent of the full time and employed homemakers belonged to nuclear type representing the break down of joint family system in our society.

**Family size:**

When analysing the family size the data revealed the impact of the small family norms stressed by the Government. A majority of 67 per cent of the families of employed homemakers belonged to small family system whereas only 50 per cent of the full time homemakers come under this group. Only very few families had more than seven members as they were living in joint family system.

**Age:**

Among selected homemakers on an average a majority of 33 per cent of full time homemakers and 37 per cent employed homemakers belong to an age group of 31 to 40 years.

**Educational status:**

It is an encouraging factor to know that none of the selected homemakers were illit<sup>e</sup>rate. However majority of the full time (75%) homemakers were educated only up to primary or secondary school level. Whereas with regard to employed homemakers 58 per cent of them were educated till college level. This shows, in the present day women aspire to gain

more education which inturn motivates them to take up outside job to gain economic independence.

Occupational status:

Occupational status of employed women is shown in Table-III.

TABLE - III  
OCCUPATION OF EMPLOYED HOMEMAKERS

S.No.	Occupation	Percentage of homemakers with income groups			
		LM N=25	MM N=25	HM N=25	Total N=75
1.	Teacher	8	32	32	24
2.	Stenographer	24	16	16	19
3.	Entrepreneurs	24	16	12	17
4.	Clerk	-	24	16	13
5.	Officer	-	12	16	9
6.	Nurse	24	-	-	8
7.	Sales women	20	-	-	7
8.	Doctor	-	-	8	3

Among 75 employed homemakers majority of 24 per cent were employed as teachers followed by stenographers (19%), women entrepreneurs (17%), clerks (13%), officers (9%), nurses (8%)

sales women (7%) and doctors (3%). This reveals the increasing opportunities for homemakers to enter into the job arena.

2. Management of resources by the homemakers:

This aspect is considered under the following lines:

- a. Percentage of income spent on food
- b. Person involved in cooking
- c. Pattern of meal preparation and
- d. Time spent on food preparation

a. Percentage of income spent on food:

Table-IV shows the percentage of income spent on food per month by the selected homemakers.

TABLE - IV

PERCENTAGE OF INCOME SPENT ON FOOD BY SELECTED HOMEMAKERS

S.No.	Percentage of income spent on food	Percentage of homemakers with income group							
		LM		MM		HM		Total	
		FH N=25	EH N=25	FH N=25	EH N=25	FH N=25	EH N=25	FH N=75	EH N=75
1.	11 - 20	-	-	-	-	40	44	13	15
2.	21 - 30	32	8	48	40	24	20	35	23
3.	31 - 40	20	8	24	32	36	36	27	25
4.	41 - 50	36	40	20	12	-	-	19	17
5.	51 - 60	8	20	8	16	-	-	5	12
6.	61 - 70	4	24	-	-	-	-	1	8

From the Table-IV it was evident that irrespective of their employment, majority of the selected homemakers spent between 21 and 40 per cent of their income on food alone. The table proves Engle's law of consumption regarding expenditure on food i.e. "as income increases the percentage of income spent on food decreases though the actual cost increases". Majority of 36 and 40 per cent of full time and employed homemakers belonging to low middle income group spent 41-50 per cent of the income on food. This was followed by 21-30 per cent of income spent by 48 and 40 per cent full time and employed homemakers belonging to middle middle income group and 11-20 per cent of the income spent by 40 per cent of the full time homemakers and 44 per cent of the employed homemakers of high middle income group. When analysed it was observed from the table that employed homemakers spend more money on food when compared to full time homemakers.

b) Person involved in cooking:

Irrespective of the income group and employment status cooking was done by 80 per cent of the homemakers. Only among high middle income group, cooks were engaged to perform this duty. This proved that due to the rising labour cost, demand for paid help and preference of the homemakers to cook for their family by themselves were the main reason in performing the activity.

c. Pattern of meal preparation:

Breakfast and dinner were prepared regularly by all the homemakers. Lunch was prepared by 67 per cent of the full time homemakers and 43 per cent of the employed homemakers regularly as many of them pack their breakfast item itself for lunch due to shortage of time to prepare the lunch along with breakfast in the morning hours. Tea was prepared by 85 per cent and 81 per cent of the full time and employed homemakers. Regarding employed homemakers most of them have their tea at their work place itself. Hence they do not prepare tea at home in the evening during work days.

d. Time spent on food preparation:

The time taken for preparing breakfast, lunch, tea and dinner, active and inactive time required for preparing the meals per day and methods adopted to reduce time involved in cooking are discussed beneath.

i) Time taken for preparing breakfast:

Time taken for preparing breakfast by selected homemakers is given in Table-V.

TABLE - V

## TIME TAKEN FOR PREPARING BREAKFAST BY SELECTED HOMEMAKERS

S.No.	Time taken (in minutes)	Percentage of homemakers with income groups							
		LM		MM		HM		Total	
		FH N=25	EH N=25	FH N=25	EH N=25	FH N=25	EH N=25	FH N=75	EH N=75
1. Active Time/Preparation:									
	0 - 15	-	-	12	4	8	4	7	3
	16 - 30	36	40	20	12	32	40	29	31
	31 - 45	40	20	24	36	32	16	32	24
	46 - 60	16	28	32	16	24	20	24	21
	61 and above	8	12	12	32	4	20	8	21
2. Inactive Time/Cooking:									
	16 - 30	20	12	16	20	24	44	20	25
	31 - 45	20	16	16	20	28	20	21	19
	46 - 60	40	52	60	16	44	16	48	28
	61 and above	20	20	8	44	4	20	11	28

The time taken for cooking generally depends upon the items prepared. The table reveals that when compared to preparation time, cooking time was more. For preparation majority of full time homemakers (61%) and employed homemakers (55%) required 31 minutes to 60 minutes. Whereas regarding cooking time a majority of 61 per cent of the full time homemakers and

52 per cent of the employed homemakers required 31-60 minutes. Though generally we have an attitude that full time homemakers spend more time on cooking, the data revealed that employed homemakers took maximum time of 60 minutes and above for preparation and cooking. This may be due to the addition of quantities prepared by the employed homemakers so as to pack the prepared breakfast for their lunch.

ii. Time taken for preparing lunch:

Time taken for preparing lunch by the homemakers is given in the Table-VI.

TABLE - VI

## TIME TAKEN FOR PREPARING LUNCH BY SELECTED HOMEMAKERS

S.No.	Time taken (in minutes)	Percentage of homemakers within income groups							
		LM		MM		HM		Total	
		FH N=12	EH N=14	FH N=22	EH N=8	FH N=16	EH M=18	FH M=50	EH M=30
1. Active Time/Preparation:									
	0 - 15	8	-	9	-	-	-	6	-
	16 - 30	17	50	41	--	25	28	30	23
	31 - 45	42	-	18	25	44	17	32	17
	46 - 60	25	50	14	50	19	44	18	47
	61 and above	8	-	18	25	12	11	14	13
2. Inactive Time/Cooking:									
	16 - 30	50	50	9	-	19	33	26	27
	31 - 45	33	50	50	50	44	28	42	37
	46 - 60	17	-	23	50	37	17	26	27
	61 and above	-	-	18	-	-	22	6	9

Lunch was prepared by only 80 out of 150 homemakers. Among the homemakers who prepared lunch majority of 32 per cent and 44 per cent of full time homemakers spent 31-45 minutes for preparation and cooking respectively whereas with regard to employed homemakers a maximum of 47 and 37 per cent of the homemakers, required 46-60 minutes for preparation and 31-45 minutes for cooking respectively.

## iii. Time taken for preparing tea:

Time taken for preparing tea is shown in Table-VII.

TABLE - VII

## TIME TAKEN FOR PREPARING TEA BY SELECTED HOMEMAKERS

S.No.	Time taken (in minutes)	Percentage of homemakers with income group							
		LM		MM		HM		Total	
		FH N=20	EH N=15	FH N=21	EH N=23	FH N=23	EH N=23	FH N=64	EH N=61
1. Active Time/Preparation:									
	0 - 15	100	100	71	100	65	74	79	91
	16 - 30	-	-	29	-	22	26	17	9
	31 - 45	-	-	-	-	13	-	4	-
2. Inactive Time/Cooking:									
	0 - 15	100	100	86	73	70	61	85	82
	16 - 30	-	-	14	27	26	39	13	18
	31 - 45	-	-	-	-	4	-	2	-

Generally the homemakers prepared only tea or coffee on all the week days for their tea in the evening. The snacks for tea were generally purchased from outside. A majority of 79 per cent and 91 per cent of the full time and employed homemakers took 10-15 minutes for preparing tea.

## iv. Time taken for preparing dinner:

Time taken for preparing the dinner is given in Table-VIII.

TABLE - VIII  
 TIME TAKEN FOR THE PREPARING DINNER BY SELECTED  
 HOMEMAKERS

S.No.	Time taken (in minutes)	Percentage of homemakers with income group							
		LM		MM		HM		Total	
		FH N=25	EH N=25	FH N=25	EH N=25	FH N=25	EH N=25	FH N=75	EH N=75
1. Active Time/Preparation:									
	0 - 15	40	44	16	-	16	34	24	16
	16 - 30	28	52	60	80	16	28	35	55
	31 - 45	32	4	8	16	36	44	25	20
	46 - 60	-	-	16	4	24	24	13	9
	61 and above	-	-	-	-	8	-	3	-
2. Inactive Time/Cooking:									
	16 - 30	68	56	24	24	32	28	41	37
	31 - 45	12	20	56	56	24	20	31	30
	46 - 60	20	16	16	20	32	40	23	25
	61 and above	-	8	4	-	12	12	5	8

Dinner was prepared by all the homemakers as generally it was the time when most of the families have family meals, together peacefully. Irrespective of the employment status 16-30 minutes were required for preparing and cooking the dinner respectively by 35 per cent and 41 per cent of full time

homemakers and 55 and 37 per cent of the employed homemakers respectively.

Among the selected homemakers 55 per cent of the full time homemakers and 65 per cent of the employed homemakers considered preparation for cooking as time consuming when compared to actual cooking. However full time and employed homemakers of low income group and full time homemakers of middle middle income group considered cooking as time consuming. This difference may be mainly because of the type of fuel used by the group.

v. Active time required in preparing the meal per day:

The average time taken for various activities required for preparing the meal per day are considered as active time. Active time required in preparing the meal <sup>Per</sup> day by the selected homemakers is given in Table-IX.

TABLE - IX

ACTIVE TIME REQUIRED IN PREPARING THE MEALS PER DAY BY  
SELECTED HOMEMAKERS

S.No.	Preparation time (in minutes)	Percentage of homemakers with income group							
		LM		MM		HM		Total	
		FH N=25	EH N=25	FH N=25	EH N=25	FH N=25	EH N=25	FH N=75	EH N=75
1.	Cleaning:								
	0 - 15	44	48	76	64	48	40	56	54
	16 - 30	56	52	24	36	52	60	44	46
2.	Cutting of vegetables:								
	0 - 15	40	56	16	24	20	16	26	32
	16 - 30	32	12	20	52	60	48	37	37
	31 - 45	28	32	64	20	16	16	36	23
	46 - 60	-	-	-	4	4	12	1	5
	60 and above	-	-	-	-	-	11	-	3
3.	Grinding:								
	0 - 15	16	8	-	-	-	-	5	3
	16 - 30	40	48	12	8	16	16	23	24
	31 - 45	32	16	16	24	28	16	25	19
	46 - 60	12	20	40	52	36	64	29	45
	61 and above	-	8	32	16	20	4	17	9

The active time includes all the activities required for preparing the meals such as cleaning of raw ingredients and cutting of vegetables, grinding for masalas, idly, sevai etc.

Though the cleaning time is generally based on the raw ingredients used, for cooking majority of 56 per cent and 54 per cent of full time and employed homemakers took 0-15 minutes on an average, for the activity. However the remaining of them had spent 15-30 minutes for the same.

Though time taken for cutting of vegetable depends upon various other factors such as quantity of vegetable cut and the items prepared, an average of 15-45 minutes was required by 73 per cent of the full time homemakers and 62 per cent of the employed homemakers for the activity.

Grinding plays a very important role in South Indian cooking. Generally homemakers use to grind masalas and for preparing dishes like idly, appam and sevai. Hence the time taken for grinding ranged between 15 minutes to more than 60 minutes on an average. It required 31-60 minutes for a majority of 54 per cent and 64 per cent of full time and employed homemakers.

vi. Inactive time required for preparing the meal per day:

Inactive time taken by the selected homemakers are shown in Table-X.



In every home the homemakers adopted various methods for cooking their food. On the whole 57 per cent of the full time homemakers and 44 per cent employed homemakers spent about 31-45 minutes on pressure cooking per day. Steaming was also done for 31-45 minutes by 43 per cent of the homemakers, irrespective of their employment status. Frying method was adopted for few minutes (0-15 minutes) by a majority of 56 per cent and 52 per cent of the full time and employed homemakers. Boiling was done for 16-30 minutes by 51 per cent and 45 per cent of the full time and employed homemakers. Of all the methods frying consumed minimum time. It is encouraging to note that pressure cooking had been adopted in all households, which means the value of pressure cooking had been understood by the present day homemakers. Boiling was adopted mainly for heating water, preparation of coffee or tea, and for boiling gravy, rasam etc. Steaming was required for preparing idly, puttu etc.

All the homemakers belonging to middle middle income group and high middle income group adopted various simplified methods to save their time and energy involved for preparing their food. Whereas, among low middle income group only 80 per cent adopted such methods.

vii. Methods adopted to reduce time involved in cooking:

Other than planning their work ahead so as to save their

considerable time and energy, the selected homemakers adopted various methods like use of labour saving devices and convenience foods. Labour saving devices such as mixies, grinder and other electrical and non electrical devices which saves energy were utilized by 73 per cent and 82 per cent of the full time and employed homemakers. Convenience foods were used by 72 per cent of full time homemakers and 60 per cent of employed homemakers. Very few had also engaged servants to do their household work, so as to reduce their work load.

### 3. Awareness of Homemakers Regarding Availability of Convenience Foods:

Awareness of homemakers regarding availability of convenience foods are dealt under:

- a) Awareness of convenience foods and
- b) Sources of information on convenience foods.

#### a. Awareness of convenience foods:

All the homemakers except 8 per cent and 4 per cent of the low middle income group were aware of the convenience foods existing in the market. This shows the increased popularity of the convenience foods among the homemakers.

Various item of convenience foods the homemakers were aware off are presented in Table-XI.

TABLE - XI  
 AWARENESS OF CONVENIENCE FOODS

S.No.	Items	Percentage of homemakers with income group			
		LM N=47	MM N=50	HM N=50	Total N=147
1.	Boiling:				
	Noodles	-	77	98	58
	Halwa	2	44	90	45
	Icecream	-	56	76	44
	Payasam	-	14	18	11
	Rava uppuma	-	-	14	9
	Ragi noodles	-	4	12	5
2.	Frying:				
	Deep fat frying:				
	Culabjamoon	79	100	100	93
	Bhaji	-	26	66	31
	Vadai	-	10	60	23
	Shallow fat frying:				
	Rava dosai	-	10	36	15
	Adai	-	-	12	4
3.	Steaming:				
	Rava idly	-	30	48	26
	Sevai	-	14	30	15
4.	Others:				
	Sambar powder	41	52	80	58
	Garam masala	-	6	24	10
	Rasam powder	-	2	4	2
	Idli podi	-	6	22	29

Among the multifarious types of convenience foods available in the market, the homemakers seem to be aware of only a few types. Among the three income groups selected high middle income group had more knowledge about convenience foods available in the market. Employment status of the homemakers did not have influence on the awareness of convenience foods.

Irrespective of the income 93% of the homemakers were aware of gulabjamoon followed by noodles (58%) and sambar powder (58%). Only 2 per cent were aware of rasam powder.

b. Sources of information on convenience foods:

The sources by which the homemakers, gathered information about convenience foods are shown in Table-XII.

TABLE - XII  
SOURCES OF INFORMATION ON CONVENIENCE FOODS

S.No.	Source	Percentage of Homemakers with income group							
		LM		MM		HM		Total	
		FH N=25	EH N=25	FH N=25	EH N=25	FH N=25	EH N=25	FH N=75	EH N=75
Advertisement:									
	Television	64	56	100	100	100	100	88	85
	Radio	60	40	60	40	100	100	73	60
	Magazines	-	-	52	60	72	64	40	41
	Shopkeepers	-	-	8	16	36	40	15	19
	Exhibitions	-	-	-	-	8	16	3	5
	Posters	-	-	-	-	16	12	5	4
	Pamphlets	-	-	-	-	8	8	3	3
	Friends and Relations	16	28	72	60	28	24	39	37
	Demonstration	-	-	-	-	-	8	-	3

From the Table it was evident that TV, Magazines, Friends and relations seem to be the major source of information influencing the use of convenience foods among the selected homemakers. Advertisements on television had a very good impact on more than 80 per cent of the selected homemakers, to purchase the convenience foods. This shows the impact of the TV on the public. The advertisements in radio and magazines also had

motivated 73 and 40 percent of full time homemakers and 60 and 41 per cent of employed homemakers in their purchase. Above 30 per cent of the homemakers were influenced by their friends and relations who had expressed their satisfaction and had recommended the convenience foods which in turn had influenced the homemakers to use it.

#### 4. Use of Convenience Foods by the Homemakers:

This topic is discussed under:

- a) Items of convenience foods used and
- b) Frequency of use of convenience foods

##### a) Convenience Food items used:

All the homemakers belonging to middle middle income group and high middle income group were aware of the convenience foods. Among the low middle income group only 92 per cent and 96 percent of full time and employed homemakers were aware of the convenience foods among which only 68 per cent and 28 per cent of the full time homemakers and employed homemakers used it. This shows that though the homemakers were aware of the convenience foods due to various prejudices regarding their taste, and their quality, their misconceptions about their nutrients and the ingredients used, and due to its high cost many homemakers do not use convenience foods.

The item of convenience foods used at home is stated in the Table-XIII.

TABLE - XIII

## CONVENIENCE FOOD ITEMS USED BY THE HOMEMAKERS

S.No.	Items used	Percentage of homemakers with income group							
		LM		MM		HM		Total	
		FH N=17	EH N=7	FH N=25	EH N=25	FH N=25	EH N=25	FH N=67	EH N=57
1.	Boiling:								
	Noodles	-	-	24	30	40	60	21	27
2.	Steaming:								
	Rava idly	-	-	-	4	-	16	-	7
	Rice sevai	-	-	-	-	12	16	4	5
3.	Frying:								
	a. Deep fat frying:								
	Gulabjamoom	24	85	44	52	80	88	49	75
	Vadai	-	-	20	4	4	12	8	5
	Bhaji	-	-	12	-	4	12	5	4
	b. Shallow fat frying								
	Adai	-	-	-	-	-	36	-	12
4.	Others:								
	Sambar powder	18	29	24	28	24	16	22	24
	Masala powder	-	-	4	-	-	8	1	3
	Rasam powder	-	-	16	8	-	12	5	7
	Idly powder	-	-	4	-	-	8	1	3
	Chilli powder	-	-	12	24	24	12	12	12

The Table shows that though great many number of convenience foods are there in the market Gulabjamoon was in vogue for many years and also a popular dish of all the items. This was used by 49 per cent and 75 per cent of the full time and employed homemakers. It is seen from the table that among three income group more than 80 per cent of the high middle income group used it. Noodles also was utilized by 21 per cent and 27 per cent and Sambar powder by 20 and 17 per cent of the full time and employed homemakers respectively.

b. Frequency of use of convenience foods:

Frequency of the use of convenience foods by the homemakers is given in Table-XIV.

TABLE - XIV  
 FREQUENCY OF USE OF CONVENIENCE FOODS

S.No.	Items	Percentage of homemakers with income group								
		Daily			Weekly			Occasionally		
		LM	MM	HM	LM	MM	HM	LM	MM	HM
1.	Gulabjamoon	-	-	-	-	-	-	100 (10)	100 (24)	100 (42)
2.	Sambar powder	100 (5)	100 (13)	100 (10)	-	-	-	-	-	-
3.	Rava idly	-	-	-	100 (1)	100 (4)	-	-	100 (1)	100 (4)
4.	Masala powder	-	-	-	100 (1)	100 (2)	-	-	-	-
5.	Rasam powder	-	25 (1)	-	-	75 (3)	100 (3)	-	-	-
6.	Idly powder	-	-	-	-	100 (1)	100 (2)	-	-	-
7.	Vadai	-	-	-	-	-	-	-	100 (3)	100 (4)
8.	Noodles	-	-	-	-	96 (14)	100 (25)	-	4 (1)	-
9.	Bhaji	-	-	-	-	-	-	-	100 (3)	100 (4)
10.	Chilli powder	-	-	-	-	-	-	-	100 (9)	100 (8)
11.	Rice sevai	-	-	-	-	-	-	-	100 (4)	100 (8)
12.	Adai	-	-	-	-	-	-	-	-	100 (9)

\* The numbers inside paranthesis indicate the number of homemakers using the convenience foods.

Gulabjamoon was used occasionally and Sambar powder daily by all homemakers who used it irrespective of their income group. Instant mixes of rava idly, vadai, bhaji, chili powder and rice sevai were used occasionally by all the middle middle income group and high middle income group who consumed it. Masala powder and idli powder were used by them for few days in a week when need aroused.

Though different brands of various convenience foods are available in the market many homemakers do not prefer any particular brand. This is due to the high competition between the various brands available in the market. Other than that people give preference only to the quality and its cost. But 42 per cent full time and 48 per cent employed homemakers are very particular about the brand because of its wide availability and due to their acceptance of the taste of the particular brand.

5. Opinion and Suggestions regarding convenience foods:

a. Opinion regarding convenience foods:

Homemakers opinion regarding the convenience foods is presented in Table-XV.

TABLE - XV

## OPINION OF HOMEMAKERS REGARDING CONVENIENCE FOODS

S.No.	Opinion	Percentage of homemakers with income group			
		LM N=47	MM N=50	HM N=50	Total N=147
1.	Cost:				
	Expensive	45	30	8	28
	Reasonable	51	60	90	67
	Economic	4	10	2	5
2.	Time:				
	Time consuming	-	-	-	-
	Time saving	100	100	100	100
3.	Taste:				
	Good	85	40	12	46
	Fair	15	54	78	49
	Poor	-	6	10	5

It was understood from the Table that all the homemakers felt the convenience foods as time saving and sixty seven per cent of them expressed their cost as reasonable and 50 per cent felt that taste of convenience foods as fair.

b. Suggestions rendered by the homemakers regarding the convenience foods:

The homemakers surveyed, gave various suggestions to

increase the use of convenience foods in the households. High cost was the major obstruction for many of the homemakers to purchase and use convenience foods. Eighty per cent of the homemakers suggested that the producers should try and decrease the cost of the convenience foods, so that everybody could afford to buy it. A majority of 40 per cent of the homemakers were of the opinion that the number of varieties and brands should be increased in future. Twenty five per cent of them expressed that the producers should try by all means to improve the quality of the products so that it will be equal to that of the food prepared by conventional method. However only 15 per cent were suspicious about the possibility of adulteration in the convenience which may affect the health if consumed.

C. Results of Cooking Experiment Conducted to Compare Selected Conventional and Convenience Foods:

The results of the cooking experiment were analysed under the following aspects:

- 1) Time taken for preparing the items.
- 2) Scores obtained by the products prepared and
- 3) Cost of the products prepared.

1) Time taken for preparing the items:

The time taken for preparing selected items using 100 gms of the raw ingredients is given in Table-XVI and figure-6.

TABLE - XVI

TIME TAKEN FOR PREPARING SELECTED ITEMS BY USING CONVENTIONAL  
METHOD AND CONVENIENCE FOODS

S.No.	ITEMS	Time taken in preparing the foods in minutes						Time saved 't' value	
		Conventional			Convenience foods			using convenience foods	value
		Preparation	Cooking	Total	Preparation	Cooking	Total		
1. Boiling:									
a.	Tomato Soup	6.7	10.8	17.5	-	6.3	6.3	11.2	10.19**
b.	Payasam	5.0	17.0	22.0	-	21.3	21.3	0.7	1.88NS
c.	Halwa	40.8	25.3	66.1	1.5	22.0	23.5	42.8	74.45**
2. Steaming:									
a.	Rava idly	6.3	21.3	27.6	1.5	20.0	21.5	6.1	8.39*
b.	Rice sevai	1.7	12.3	14.0	-	6.7	6.7	7.3	16.52**
3. Frying:									
a. Deep fat frying:									
i.	Vadai	33.3	29.7	63.0	6.7	30.6	37.3	25.7	37.91**
ii.	Bhaji	12.9	26.7	39.6	5.7	28.3	34.0	5.6	1.11NS
b. Shallow fat frying:									
i.	Rava dosai	7.3	34.3	41.6	1.3	27.0	28.3	13.3	12.68**
ii.	Adi'ai	29.3	31.3	60.6	1.7	21.0	22.7	37.9	49.57**
4. Roasting:									
a.	Ravaladoo	6.3	11.7	18.0	-	13.0	13.0	5.0	6.106NS

Note: NS - Not Significant, \*Significant at 5 per cent level, \*\*Significant at 1 per cent level.

SCALE

Y AXIS 1 CM = 5 MINUTES

KEY



CONVENTIONAL



CONVENIENCE

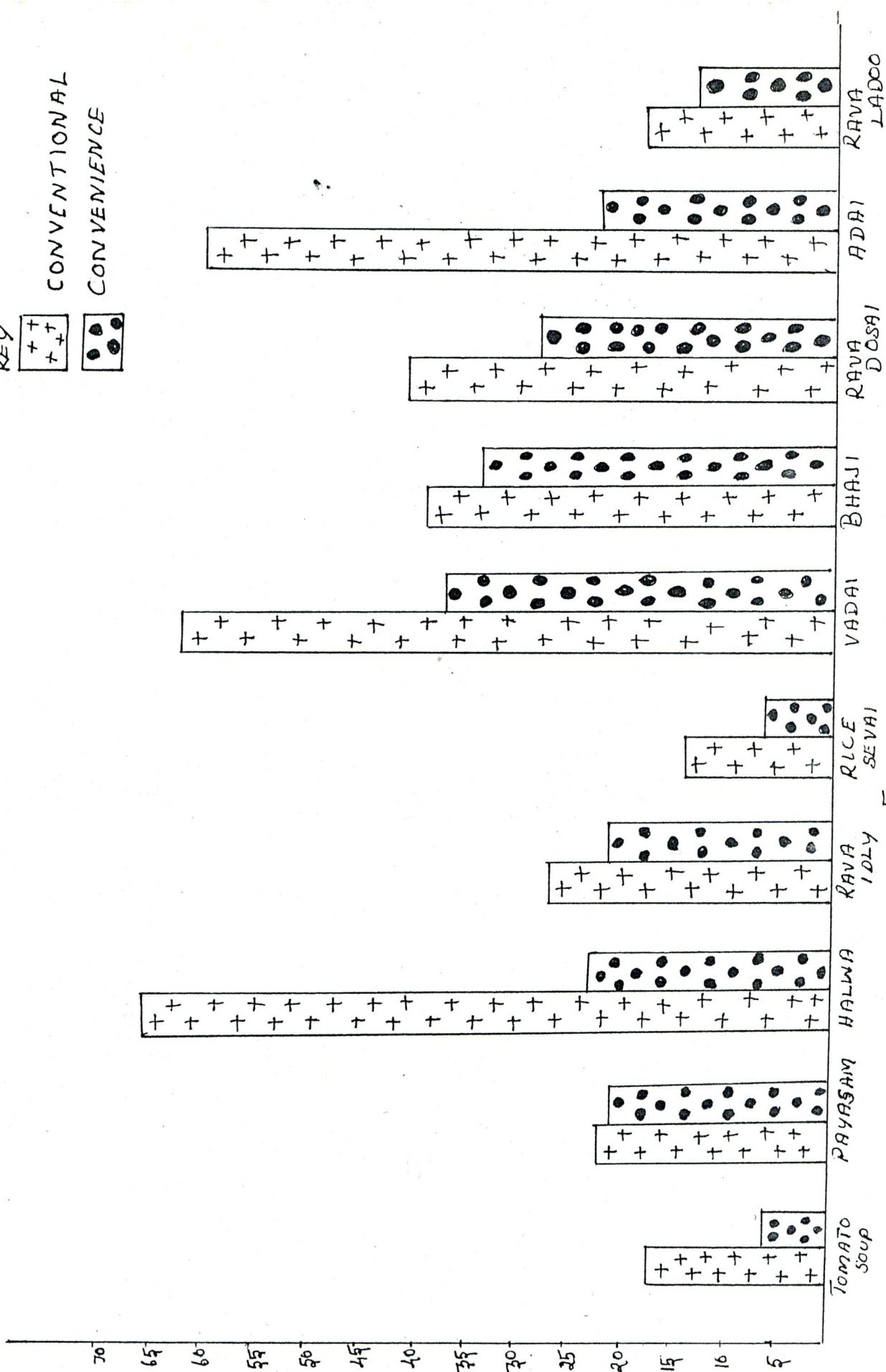


FIGURE - 6

TIME TAKEN FOR PREPARING SELECTED ITEMS BY USING CONVENTIONAL AND CONVENIENCE FOODS

The time taken for preparing convenience foods was very less when compared to the conventional method of preparation as seen in Table-XVI. Preparation was not required for convenience foods like tomato soup, payasam, rice sevai and rava laddoo. The cooking time for all the items except payasam, vadai, bhaji and rava laddoo was more for conventional foods. The total time saved using convenience foods thus varied between 0.7 mts and 42.8 mts. The least difference was noted in preparing payasam, and maximum difference was noted in preparing halwa. Preparation time was more for items which required grinding like vadai, adai and halwa. The time analysed do not include the soaking time of the ingredients required for the preparation.

When analysed statistically the table revealed that there was no significant difference between the time consumption of the items, bhaji and rava laddoo when prepared by both conventional method and using convenience foods. However for preparing tomato soup, rava idly the difference was significant at 5 per cent level and for Payasam, halwa, rice sevai, vadai and rava dosai it was highly significant.

2) Scores obtained by the products prepared:

Scores obtained for various items prepared are given in Table-XVII and figure-7.

TABLE - XVII  
 SCORES OBTAINED BY SELECTED ITEMS PREPARED USING  
 CONVENTIONAL AND CONVENIENCE FOODS

S.No.	Items	Average score of products prepared by		't' value
		Conventional	Convenience foods	
1.	Boiling:			
a.	Tomato soup	97	74	22.12**
b.	Payasam	90	80	1.19NS
c.	Halwa	96	95	0.625NS
2.	Steaming:			
a.	Rava idly	94	83	2.808NS
b.	Rice sevai	95	86	4.148NS
3.	Frying			
a.	Deep fat frying:			
i.	Vadai	97	88	6.188*
ii.	Bhaji	96	74	6.870*
b.	Shallow fat frying:			
i.	Rava dosai	96	87	4.860*
ii.	Adai	97	96	0.505NS
4.	Roasting:			
	Rava laddoo	97	86	2.781NS

Note: N.S - Not significant

\* - Significant at 1 per cent

\*\* - Significant at 5 per cent

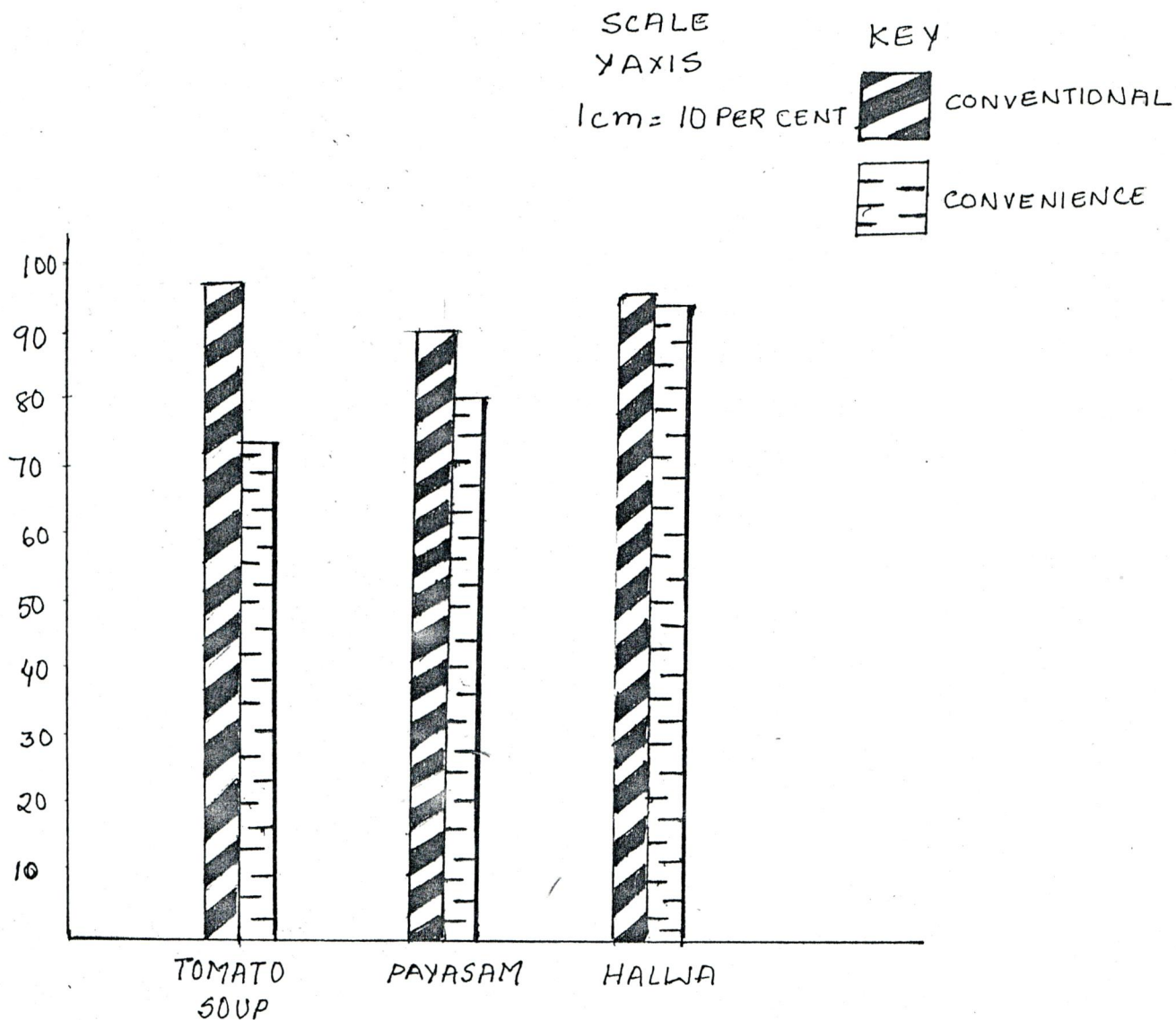


FIGURE - 7

SCORES OBTAINED BY SELECTED  
ITEMS PREPARED USING CONVENTIONAL  
AND CONVENIENCE FOODS  
(BOILING)

SCALE

Y AXIS

1 cm = 10 PERCENT

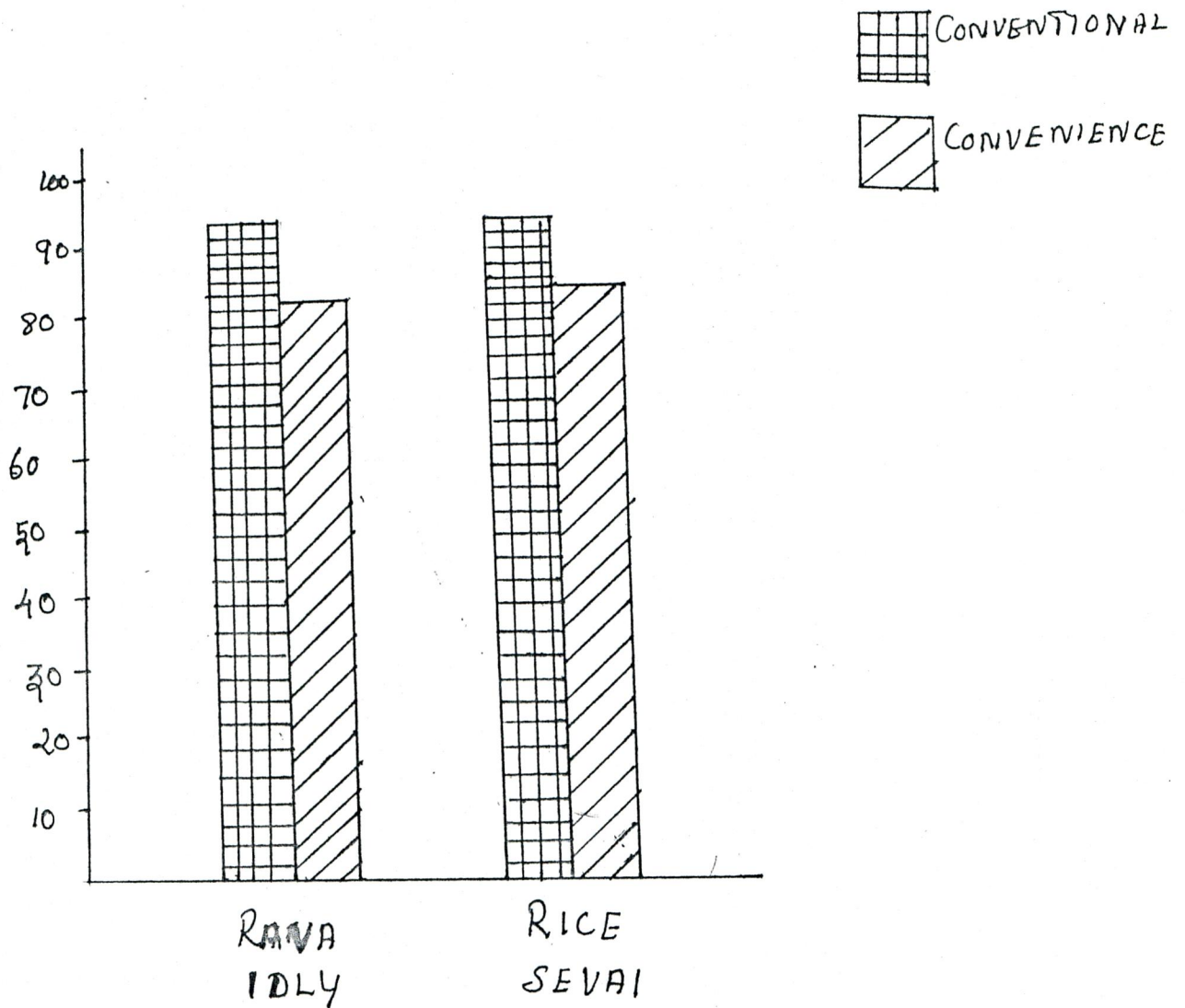


FIGURE - 7a

SCORES OBTAINED BY SELECTED  
ITEMS PREPARED USING CONVENTIONAL  
AND CONVENIENCE FOODS

[STEAMING<sup>N</sup>]

SCALE

Y AXIS

1cm = 10 PERCENT

KEY



CONVENTIONAL



CONVENIENCE

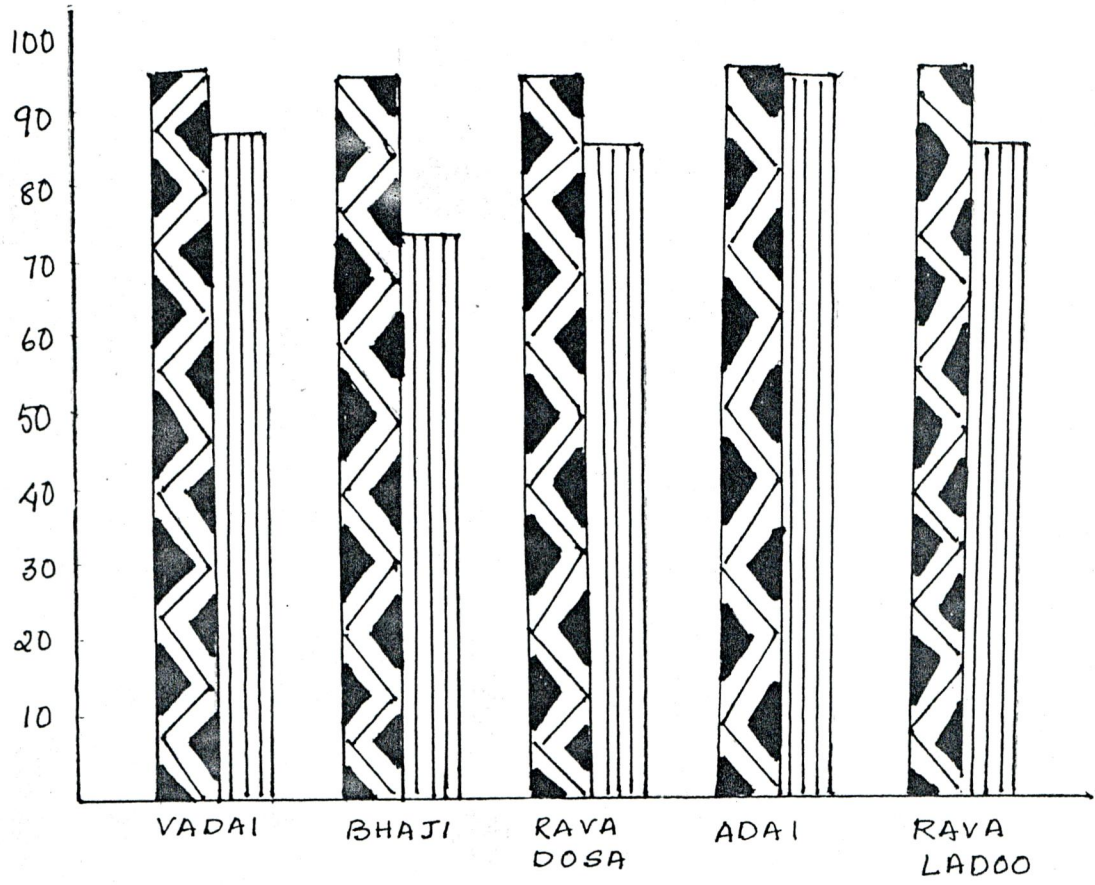


FIGURE - 7b

SCORES OBTAINED BY SELECTED  
ITEMS PREPARED USING CONVENTIONAL  
AND CONVENIENCE FOODS  
[FRYING AND ROASTING]

When the products were analysed for its acceptability the average score obtained for foods prepared using conventional method scored high when compared to convenience foods. A maximum difference of 23 per cent for tomato soup and a minimum difference of one percent for halwa and adai was observed.

Statistical analysis of the Table revealed that the taste of payasam, halwa, rava idly, rice sevai, bhaji, adai and rava laddoo prepared by both methods do not have any significant difference at five per cent level. The difference in the taste of tomato soup was highly significant. Thus it gives us rays of hope that with little more trials and modification in the preparation of convenience foods, one may increase its taste equal to that of conventional foods.

### 3) Cost of prepared products:

The cost of products prepared using convenience food is compared with conventional method of cooking and the food obtained from resturants. The comparison of the cost of the selected items is given in Table-XXIII and figure-8.

TABLE - XXIII

## COMPARISON OF THE COST OF THE PREPARED PRODUCTS

S.No.	Items	Cost of Cooked Products (Rs.)		
		Conventional	Convenience	Resturant
1.	Tomato soup	1.50	3.00	6.00
2.	Payasam	0.65	1.16	2.50
3.	Halwa	4.62	5.00	6.25
4.	Rava idly	0.38	1.02	4.00
5.	Rice sevai	0.50	1.00	2.50
6.	Vadai	0.71	1.42	3.30
7.	Bhaji	1.60	2.08	3.33
8.	Rava dosai	0.38	1.23	4.09
9.	Adai	0.66	1.17	3.75
10.	Rava laddoo	1.55	1.78	3.00

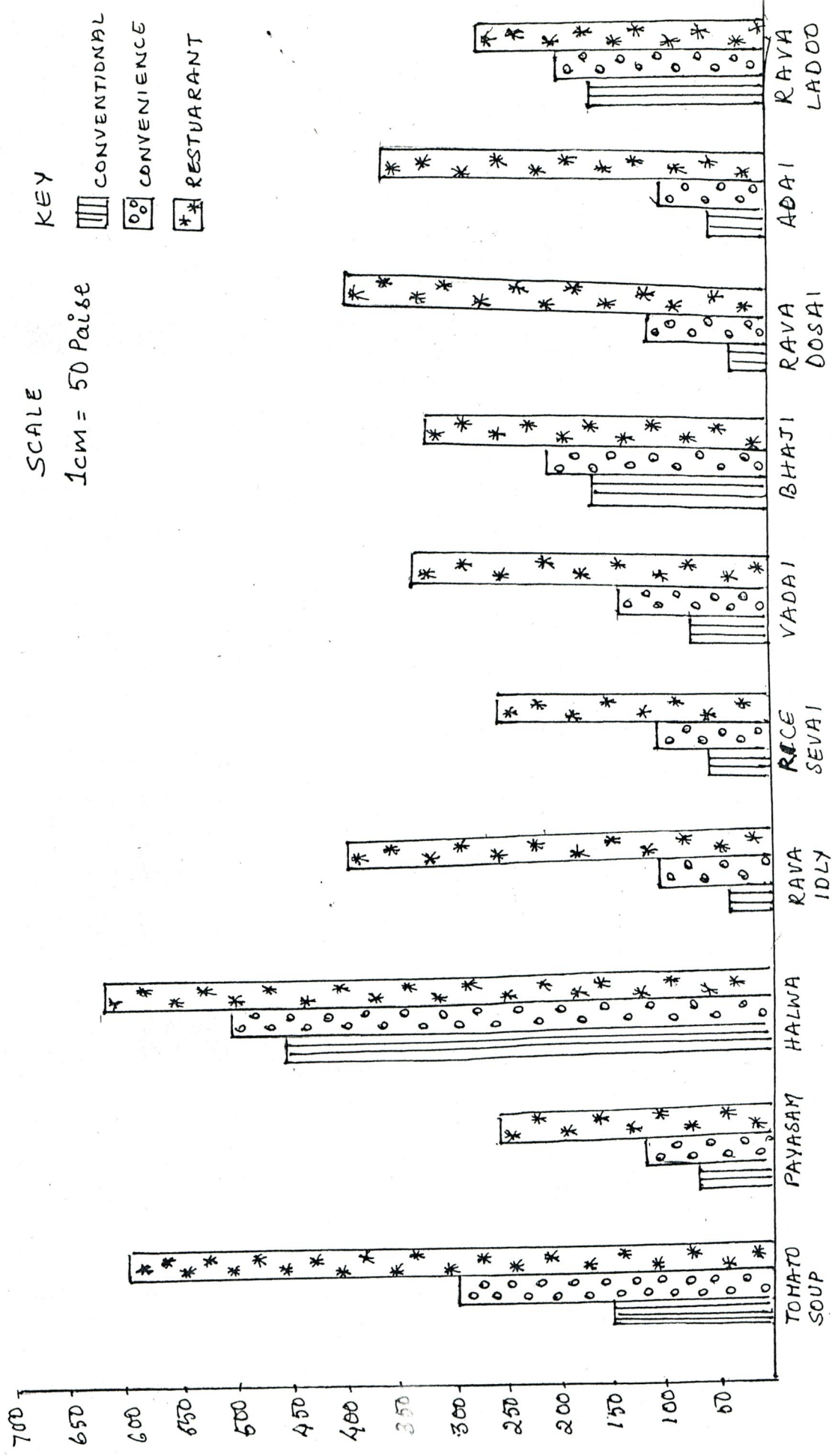


FIGURE - 8

COMPARISION OF THE COST OF THE PREPARED PRODUCTS

The table doubtlessly reveal that the cost of items prepared by conventional method costs very less when compared to the convenience foods. The foods obtained from resturants were costlier than the convenience foods. Though convenience foods are costly it can be used in the households instead of going to resturants which will help the homemakers to save their time, energy as well as money. Besides the convenience foods can be prepared at home in a hygienic condition. Though the taste of the convenience foods are not as good as conventional food this can be improved by the homemakers in trying out various changes in its preparation.

## **SUMMARY AND CONCLUSION**

## V SUMMARY AND CONCLUSION

The summary of 'A Comparative Study on Preparation of Conventional and Convenience Foods' are dealt under following lines.

- A. Findings of the market survey on the availability of convenience foods.
- B. Findings of the household survey on the use of convenience foods and
- C. Results of the cooking experiment conducted to compare conventional and convenience foods.

- A. Findings of the market survey on the availability of convenience foods:

A survey conducted in 20 shops within Coimbatore city revealed that wide range of convenience foods in different brand were available in the market. Other than the various instant powders, convenience foods for preparing icecreams, halwa, noodles, rice sevai, rava idly, gulabjamoon, bhaji, vadai, rava dosai and rava laddoo were available commonly in many shops in the market.

- B. Findings of the household survey on the use of convenience foods:

A household survey was conducted among the middle

income both employed and full time homemakers in and around Coimbatore city. Majority of the families belonged to small family of nuclear type. The majority of full time homemaker were educated up till school level and employed homemakers till college level. The employed homemakers were occupied as teachers, stenographers, clerks, officers etc.

The percentage of income spent on food decreased with increase of income proving Engel's law of consumption. Majority of the homemakers do cooking by themselves. Breakfast and dinner was prepared in all the households whereas lunch was prepared only in 67 per cent and 43 per cent of full time and employed homemakers.

Thirty to sixty minutes were required for preparing and cooking breakfast, lunch and dinner respectively and 0-15 minutes for preparing tea by majority of the homemakers irrespective of their income and employment status, thus approximately requiring four hours per day for cooking.

Preparing the ingredients for cooking required more time when compared to actual cooking by the homemakers. The preparation included cleaning the raw ingredients for cooking, cutting of vegetables and grinding masalas and grains which required 0-5 minutes, 16-45 minutes and 31-60 minutes respectively by majority of the homemakers.

Among the various methods involved in cooking, pressure cooking and steaming required 31-45 minutes, 16-30 minutes for boiling and 0-15 minutes for frying by majority of the homemakers.

Except 20 per cent of the low middle income group all the homemakers adopted various methods like planning ahead of the job, use of convenience foods, and labour saving devices to reduce the time and energy spent on cooking.

All the homemakers except a few low middle income group were aware of convenience foods existing in the market among which gulabjamoon, noodles and sambar powder were very popular and they were commonly used by homemakers. Information regarding the existence of such convenience foods were mainly obtained through advertisements in TV, Radio, Magazines etc. Friends and relatives also had influenced the use of convenience foods among the selected homemakers. Sambar powder was used daily, noodles few times in a week and gulabjamoon occasionally by the homemakers.

Though the majority of the homemakers did not give preference for any particular brand they were cautious about their quality and cost. Majority of the homemakers were of the opinion that the convenience foods are time saving, of reasonable cost with fair in taste. The homemakers also suggested that more varieties and brands of good quality

convenience foods at reduced rate should be available in the market.

C. Results of the cooking experiment conducted to compare conventional and convenience foods:

The experiment was conducted to compare the time taken, the taste and the cost of selected foods prepared using conventional method and convenience foods.

The time taken for preparing selected items by conventional method was more when compared the items prepared by using convenience foods. Tomato soup, payasam, rice savai and rava laddoo did not require any preparation time. Maximum time was saved in items that required grinding such as vadai, adai and halwa.

With regard to taste of the foods all the items prepared using convenience foods scored less, with a difference of score ranging between a minimum of one per cent and maximum of 23 per cent.

When the cost of the convenience foods were compared with foods prepared using conventional method and the foods bought from a restaurant revealed that, though the cost of the convenience foods are generally twice the cost of foods prepared by conventional method it was only half the cost of foods bought from restaurant.

Though convenience foods are thought to be costly in reality it is economical when one considers of the wastage of food that could be avoided, standard and hygienic quality that could obtained and the amount of electrical and fuel energy that could be saved. Besides the time and energy that are generally saved could be used for various constructive purposes by the homemakers.

If the taste of convenience foods could be improved in due course with the help of researchers and producers, and if they could obtain a quality that is appreciable by the homemakers no doubt convenience food will flood into every households and occupy the shelves in the kitchen and help the homemakers in satisfying the expectations of her family.

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1990

: Middle class - arrisnomer. The Hindu.

## APPENDICES

APPENDIX - I

AN INTERVIEW SCHEDULE TO ELECIT INFORMATION REGARDING  
AVAILABILITY OF CONVENIENCE FOODS IN THE MARKET

Name of the Interviewier :

Name of the Shop :

Address of the Shop :

S.No.	Items	Brand	WidelySold
1.	Boiling		
2.	Steaming		
3.	Frying		
	a) Deep fat frying		
	b) Shallow fat frying		
4.	Others		



Other sources of income :

Land : Rs.  
Business : Rs.  
Rent : Rs.  
Interest : Rs.  
Any others : Rs.  
Total family income : Rs. -----  
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II. RESOURCE MANAGEMENT:

1. State the amount of money spent on food per month

2. a. Person responsible for cooking

b. State the time spent on food preparation for consequent 3 days.

Days	Breakfast	Lunch	Tea	Dinner				
	Prepa- ration	Cooking	Prepa- ration	Cooking	Prepa- ration	Cooking	Prepa- ration	Cooking
1st Day								
2nd Day								
3rd Day								

3. Which part of cooking do you find time consuming?

1. Preparation: [ ] 2. Cooking: [ ]

4. State the time consumed for the following activities:

S.No.	Preparation	Time taken 3 days			Cooking	Time taken 3 days		
		1st	2nd	3rd		1st	2nd	3rd
1.	Cleaning				Pressure Cooking			
2.	Cutting Vegetables				Steaming			
3.	Grinding				Frying  Boiling			

5. Do you follow work simplification methods to reduce the time and energy expenditure in food preparation?

Yes

No

If yes, tick the methods adopted in order to reduce the time and energy expenditure in food preparation:

1. Use of convenience foods
2. Use of labour saving devices
3. Any others specify

### III. DETAILS REGARDING AWARENESS OF CONVENIENCE FOODS:

a. Are you aware of convenience foods? Yes

No

2. State the convenience foods you are aware off:

S.No.	Aware

3. State the source of information you received regarding the convenience foods:

a) Advertisement:

- Pamphlets
- Radio
- T.V.
- Magazines
- Posters
- Shopkeepers
- Exhibition

b) Demonstration:

c) Friends and Relations:

IV. DETAILS ON THE USE AND OPINIONS OF CONVENIENCE FOODS:

1. State the convenience foods used, frequency of its use,

S.No.	Item used	Brand	Frequency of use			
			Daily	Weekly	Monthly	Occasionally

2. Reasons for using convenience foods/not using convenience foods

3. Do you prefer to buy only a particular brand?

Yes

No

If so, why?

4. Opinion regarding:

i. Cost:

Expensive

Reasonable

Economic

ii. Time:

Time consuming

Time saving

iii. Taste:

Taste good

Fair

Not tasty

5. Do you have suggestions to render in convenience foods in future?

## APPENDIX - III

### PROCEDURES ADOPTED FOR PREPARING FOODS BY CONVENTIONAL METHOD

#### 1) Tomato Soup:

##### Ingredients:

Tomato	:	100gms
Refined flour	:	1 tsp
Fat	:	5 gms
Corriander leaves	:	1 bunch
Onion	:	10 gms
Salt	:	to taste

##### Method:

The tomatoes were blanched and peeled off the skin and the juice was extracted using mixer and strained the pulp. The fat was melted in double boiler and mixed with refined flour to make white sauce. The pulp was added to the white sauce by stirring it constantly to which chopped and fried onions was also added. It was then garnished with finely chopped corriander leaves.

#### 2) Payasam:

##### Ingredients:

Vermicilli	:	30 gms
Water	:	1½ cup
Sugar	:	70 gms
Milk	:	400 ml
Cardamom	:	5
Cashew nuts	:	6
Ghee	:	1 tsp.

Method:

Vermicilli was boiled in  $1\frac{1}{2}$  cup of water until it gets cooked. Sugar was added to it and left for few minutes on the fire until the sugar melts. It was then allowed ~~it~~ to cool for some time. To this boiled milk and powdered cardamom were added and garnished with cashenuts roasted in ghee.

3) Halwa:

Ingredients:

Whole wheat	:	100 gms
Sugar	:	100 gms
Water	:	100 gms
Ghee	:	30 gms
Cashew nuts	:	10 gms
Cardamom	:	2 gms

Method:

Wheat was soaked over night and ground smoothly. The ground substance was strained and allowed to stand for some time and the supernatant water is drained off. To the strained wheat milk, sugar cardamom and water were added. The mixture is kept on low fire and stirred constantly by adding ghee until it left the sides of the vessel. This was poured in a plate and garnished with roasted cashewnuts.

4) Rava Idly:

Ingredients:

Semolina	:	50 gms
Curds	:	50 gms
Cashe nuts	:	10 gms
Green chillies	:	5 gms
Corriander leaves	:	1 small bunch
& Curry leaves	:	
Salt	:	to taste
Oil	:	2 tsp.

Method:

Sieved semolina and added curds and salt to make a thick batter and allowed to ferment for  $\frac{1}{2}$  hour. To a frying pan kept on a fire 2 tsp of oil was poured and seasoned it with mustard. To this green chillies, corriander leaves and cashewnuts were added. This was mixed with the batter and steamed as usual.

5) Rice Sevai:

Ingredients:

Rice flour	:	100 gms
Salt	:	to taste
Water	:	1 cup

Method:

Sieved the rice flour with salt. Water was boiled in a

vessel to which the rice flour was added slowly without forming any lumps. This dough was put in an iddiyappam press and pressed to get the strings on an iddly plate and steamed until it gets cooked.

6) Vadai:

Ingredients:

Black gram dhal	:	100 gms
Onions	:	30 gms
Green chillies	:	5 gms
Pepper	:	1 gm
Salt	:	to taste
Oil	:	for frying

Method:

Black gram was soaked for 1 hour and ground to smooth paste with salt to taste. Onion and chillies were chopped finely and added to the paste. Required oil was heated in a frying pan. Small ball of the paste were made and pressed slightly making a hole in the centre and fried it in the oil until it becomes golden brown.

7) Bhaji:

Ingredients:

Bengal gram flour	:	70 gms
Rice flour	:	30 gms
Raw Banana	:	1

Chilli powder	:	1 tsp
Salt	:	to taste
Asafoetida	:	a pinch
Cooking soda	:	a pinch
Oil	:	for frying

Method:

The flour was sieved to which salt, chilli powder cooking soda and asafoetida were added and mixed with water to make a smooth paste. The raw banana was sliced thinly. The oil was heated and each slice was dipped to cover a thin coat and fried it in oil until golden brown.

8) Rava Dosai:

Ingredients:

Semolina	:	50 gms
Refined flour	:	10 gms
Rice flour	:	20 gms
Cumin seed	:	a pinch
Butter milk	:	25 gms
Salt	:	to tast
Oil	:	2 table spoon
Corriander leaves	:	a small bunch
Green chillies	:	3
Asafoetida	:	a pinch

Method:

Sieved the flour and semolina and mixed with buttermilk,

10) Rava Ladoo:

Ingredients:

Semolina	:	50 gms
Sugar	:	50 gms
Ghee	:	25 gms
Cardamom	:	2 gms
Cashew nuts	:	1 gms

Method:

Roasted semolina with 1 tsp of ghee and powdered it, and it **was** mixed with powdered sugar and fried cardamom. Cashenuts were roasted in ghee. The remaining ghee was heated and the mixture was added to it and small balls of ladoos were made while hot.

APPENDIX - IV

SCORE CARDS

S.No.	Criteria	Score	Sample-I	Sample-II
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1. TOMATO SOUP:

Colour:

Bright red	3
Light red	2
Orange	1

Apperance:

Good	3
Fair	2
Poor	1

Texture:

Semisolid	3
Watery	2
Solid	1

Taste:

Good	3
Fair	2
Poor	1

Flavour:

Acceptable	3
Fairly acceptable	2
Poor	1

S.No.	Criteria	Score	Sample-I	Sample-II
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2. PAYASAM:

Colour:

White	3
Dull white	2
Cream	1

Appearance:

Good	3
Fair	2
Poor	1

Consistency:

Semisolid	3
Watery	2
Solid	1

Taste:

Good	3
Fair	2
Poor	1

Flavour:

Mild	3
Moderate	2
Pronounced	1

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S.No.	Criteria	Score	Sample-I	Sample-II
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3. HALWA:

Colour:

Orange	3
Light Orange	2
Brown	1

Apperance:

Good	3
Fair	2
Poor	1

Texture:

Soft	3
Sticky	2
Hard	1

Taste:

Good	3
Fair	2
Poor	1

Flavour:

Good	3
Fair	2
Poor	1

S.No.	Criteria	Score	Sample-I	Sample-II
4.	RAVA IDLY:			
	<u>Colour:</u>			
	White	3		
	Dull white	2		
	Yellowish white	1		
	<u>Apperance:</u>			
	Good	3		
	Fair	2		
	Poor	1		
	<u>Texture:</u>			
	Soft	3		
	Hard	2		
	Soggy	1		
	<u>Taste:</u>			
	Good	3		
	Fair	2		
	Poor	1		
	<u>Flavour:</u>			
	Acceptable	3		
	Fairly acceptable	2		
	Poor	1		

S.No.	Criteria	Score	Sample-I	Sample-II
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5. RICE SEVAI:

Colour:

White	3
Dull white	2
Yellowish white	1

Apperance:

Good	3
Fair	2
Poor	1

Texture:

Soft	3
Hard	2
Soggy	1

Taste:

Good	3
Fair	2
Poor	1

Flavour:

Acceptable	3
Fairly acceptable	2
Poor	1

S.No.	Criteria	Score	Sample-I	Sample-II
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6. VADAI:

Colour:

Golden brown	3
Brown	2
Dark brown	1

Apperance:

Good	3
Fair	2
Poor	1

Texture:

Soft	3
Hard	2
Soggy	1

Taste:

Good	3
Fair	2
Poor	1

Flavour:

Good	3
Fair	2
Poor	1

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S.No.	Criteria	Score	Sample-I	Sample-II
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7. BHAJI:

Colour:

Golden brown	3
Brown	2
Dark brown	1

Apperance:

Good	3
Fair	2
Poor	1

Texture:

Soft	3
Hard	2
Soggy	1

Taste:

Good	3
Fair	2
Poor	1

Flavour:

Good	3
Fair	2
Poor	1

S.No.	Criteria	Score	Sample-I	Sample-II
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8. RAVA DOSAI:

Colour:

Golden brown	3
Brown	2
Dark brown	1

Apperance:

Good	3
Fair	2
Poor	1

Texture:

Crisp	3
Soft	2
Soggy	1

Taste:

Good	3
Fair	2
Poor	1

Flavour:

Acceptable	3
Fairly acceptable	2
Poor	1

S.No.	Criteria	Score	Sample-I	Sample-II
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9. ADAI:

Colour:

Golden brown	3
Light brown	2
Brown	1

Appearance:

Good	3
Fair	2
Poor	1

Texture:

Soft	3
Semihard	2
Hard	1

Taste:

Good	3
Fair	2
Poor	1

Flavour:

Acceptable	3
Fair acceptable	2
Poor	1

S.No.	Criteria	Score	Sample-I	Sample-II
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10. RAVA LADDOO:

Colour:

White	3
Cream	2
Yellowish white	1

Appearance:

Good	3
Fair	2
Poor	1

Texture:

Fair	3
Soft	2
Hard	1

Taste:

Good	3
Fair	2
Poor	1

Flavour:

Acceptable	3
Fairly acceptable	2
Poor	1

APPENDIX - V

't' TEST ANALYSIS TO FIND OUT SIGNIFICANT DIFFERENCE IN TIME

TAKEN TO PREPARE SELECTED ITEMS USING CONVENTIONAL AND CONVENIENCE FOODS

S.No.	Items	Time taken in preparing the foods in minutes			Time saved by using convenience foods			't' Value	
		Conventional method			Convenience foods				
		Preparation	Cooking	Total	Preparation	Cooking	Total		
1. Boiling:									
	Tomato soup	6.7	10.8	17.5	-	6.3	6.3	11.2	10.19
	Payasam	5.0	17.0	22	-	21.3	21.3	0.7	1.88
	Halwa	40.8	25.3	66.1	1.5	22.0	23.5	42.6	74.45
Steaming:									
	Rava idly	6.3	21.3	27.6	1.5	20.0	21.5	6.1	8.39
	Rice sevai	1.7	12.3	14.0	-	6.7	6.7	7.3	16.52
Frying:									
Deep fat frying:									
	Vadai	33.3	29.7	63.0	6.7	30.6	37.3	25.7	37.91
	Bhaji	12.9	26.7	39.6	5.7	28.3	34.0	5.6	1.11
Shallow fat frying:									
	Rava dosai	7.3	34.3	41.6	1.3	27.0	28.3	13.3	12.68
	Adai	29.3	31.3	60.6	1.7	21.0	22.7	39.9	49.57
Roasting:									
	Rava laddoo	6.3	11.7	18.0	-	13.0	13.0	5.0	6.106

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S} \sqrt{\frac{n_1 n_2}{n_1 + n_2}}$$

$$S = \sqrt{\frac{n_1 S_1^2 + n_2 S_2^2}{n_1 + n_2 - 2}}$$

$\bar{X}_1$  = Mean value of total time taken for conventional method.

$\bar{X}_2$  = Mean value of total time taken for convenience foods.

$n$  = Number of trails.

Tomato soup:

$$S = \sqrt{\frac{3 \times 1.471 + 3 \times 0.471}{4}}$$

$$S = 1.34$$

$$t = \frac{17.5 - 6.3}{1.34} \sqrt{\frac{3 \times 3}{3 + 3}}$$

$$t = 10.19$$