

**THE PURCHASING HABITS OF A HUNDRED AND FIFTY
SELECTED HOUSEWIVES IN COIMBATORE
WITH SPECIAL REFERENCE TO FOOD,
TEXTILES AND HOUSE-HOLD
EQUIPMENT**

PREMA A.

**A Thesis Submitted to the University of Madras,
in partial fulfilment of the requirements for
the Degree of Master of Science**

1962-'63.

ACKNOWLEDGEMENT.

The author wishes to express her deep gratitude to Dr.(Mrs.) Rajamal P. Devadas, M.A., M.Sc., Ph.D. (Ohio State), Principal, Sri Avinashilingam Home Science College, for her valuable guidance throughout the study. Thanks are due to Miss.S. Bhatji, M.A., Professor in Economics, Sri Avinashilingam Home Science College, for her helpful suggestions. Thanks are due to Sri N.V. Manuel, M.A., M.Ed., Head, Research Department, Sri Ramakrishna Mission Vidyalaya, and Miss.R. Shanti, M.Sc., Lecturer in Mathematics, Sri Avinashilingam Home Science College, for their help in the statistical analysis of data.

TABLE OF CONTENTS

	Page
LIST OF TABLES	
LIST OF FIGURES	
LIST OF APPENDICES	
I	INTRODUCTION 1
II	REVIEW OF LITERATURE 5
	A) Purchasing Habits and the Consumption patterns 5
	B) The Consumer-buyer 7
	C) Importance of Wise Purchasing for Wise Consumption 9
	D) The Homemaker as a Consumer-buyer 10
	E) Factors Affecting Consumer Purchases 15
	F) Markets, Retailing Services and the Consumer 19
	G) Consumer Protection and Education 23
	H) Consumer Credit 29
	I) Stages in Purchasing 34
III	PROCEDURE 40
	A) Selection of the Three Categories of Consumer Goods 40
	B) Selection of the Method 40
	C) Preparation of the Interview Schedule 41
	D) Selection of the Sample for the Interview 42
	E) Conducting the Interview and Recording the data 42

	Page
IV RESULTS AND DISCUSSIONS	44
A) Purchase of Food Textiles and Equipment by the Family Members	
B) Source of Purchase	51
C) Frequency of Purchase	58
D) Mode of Payment	60
E) Criteria for Making a Purchase	65
F) Steps in Purchasing	67
G) Purchasing Problems and Suggestions given by the Housewives	72
V SUMMARY AND CONCLUSIONS	80
BIBLIOGRAPHY	89
APPENDICES	

LIST OF TABLES

		Page
Table I	PURCHASES MADE BY DIFFERENT MEMBERS OF THE FAMILY	45.46
Table II	REASONS GIVEN BY HOUSEWIVES FOR THEIR PURCHASING FOOD, TEXTILES AND EQUIPMENT FOR THE HOME	50
Table III	SOURCES OF PURCHASE FOR FOOD	52
Table IV	SOURCES OF PURCHASE FOR TEXTILES	53
Table V	REASONS GIVEN BY THE HOUSEWIVES FOR PATRONIZING PARTICULAR SHOPS	56
Table VI	FREQUENCY OF PURCHASE OF FOOD ITEMS	58
Table VII	FREQUENCY OF PURCHASE OF TEXTILES	59
Table VIII	MODE OF PAYMENT FOR FOOD, TEXTILES, AND HOUSEHOLD EQUIPMENT	61
Table IX	REASONS GIVEN BY THE HOUSEWIVES FOR PREFERRING THE MODE OF PAYMENT	64
Table X	CRITERIA FOR MAKING THE PURCHASE OF THE THING SELECTED CONSUMER GOODS	65
Table XI	HOUSEWIVES OF DIFFERENT EDUCATIONAL LEVELS WHO PLANNED BEFORE BUYING	67
Table XII	REASONS GIVEN BY HOUSEWIVES FOR MAINTAINING OR NOT MAINTAINING ACCOUNTS	71
Table XIII	PURCHASING PROBLEMS OF THE HOUSEWIVES	72
Table XIV	HOUSEWIVES WHO RECOGNIZED AND GAVE SOLUTIONS TO PURCHASING PROBLEMS	75
Table XV	ROLE OF THE HOUSEWIFE IN SOLVING HER PURCHASING PROBLEMS	77
Table XVI	ROLE OF AUTHORITIES IN SOLVING CONSUMERS PURCHASING PROBLEMS	78

Appendix No.	Title	Page
XI	CALCULATION OF CHI SQUARE AND CONTINGENCY COEFFICIENT TO FIND THE RELATIONSHIP BETWEEN AGE OF THE HUSBAND AND MAINTENANCE OF ACCOUNTS: FOR TEXTILES	
XII	CALCULATION OF CHI SQUARE AND CONTINGENCY COEFFICIENT FOR THE RELATIONSHIP BETWEEN AGE OF THE HUSBANDS AND MAINTENANCE OF ACCOUNTS: FOR EQUIPMENT	
XIII	CALCULATION OF CHI SQUARE AND CONTINGENCY COEFFICIENT FOR THE RELATIONSHIP BETWEEN EDUCATION AND SUGGESTIONS GIVEN BY THE HUSBAND:	
XIV	INTERVIEW SCHEDULE	

I. INTRODUCTION

The home has always been the centre of family living, and the homemaker, its manager. She functions as a decision maker, director, teacher, energiser, evaluator, co-ordinator, worker and consumer-buyer. Aided by the other members of the family she performs the numerous tasks harmoniously in a happy family. The homemaker's managerial responsibilities are chiefly, determining the goals for the family and the management of family resources, time, money and material goods, towards the achievement of the goals set. Money is one of the most important resources of the family and the quality of its spending is influenced to a great extent by the family's purchasing habits; Since the homemaker assumes a major share of the responsibility in planning the family's spending, it is she who in the last analysis decides the purchasing habits of the family and moulds its standard of living. This key position of the homemaker as the director of the family resources had been acknowledged from times immemorial. In Valluvar's¹ concept,

"She is the good helpmate who possesseth every wifely virtue and SPEND^ETH NOT ABOVE HER HUSBAND'S MEANS".

The role of the homemaker as a buyer is important since her purchases will determine the quality of the family's consumption, depending on her ability to choose

the right types of goods. Unlike in the olden days, when the homemakers produced all that they needed, today's homemakers, especially those living in the urban areas, have to buy almost all the articles from the market, because of the decrease in household production, education, gainful employment of women outside their homes, disintegration of the joint family system, and increase in the standards of living. Therefore the modern homemaker is in need of the necessary skills and knowledge to buy wisely, to derive maximum satisfaction from her purchases.

Amburgey and Joles (1934)² have stated, "Present day interest in the problems of consumers leads us to consider their difficulties as buyers." Their problems are many due to the complexity of their wants, increase in the variety of goods produced, lack of knowledge about the commodities, how to test them so as to enable them to purchase standard quality goods, increase in the price levels, and the standard of living and lack of storage facilities in the home. To help women to be better buyers, we need to know their present buying habits. In order to help women to be, wise buyers studies were conducted, by Jannett and Williamson (1937)³. They stressed that a study of the buying practices followed by the homemakers will help in locating their problems and developing their skills in buying. Similar views have been expressed by Byrns (1960)⁴ and many others. Good and Seates (1954)⁵ say, "One may have goals to which he aspires; to make

plans for reaching these goals, he must find out what the present situation is, in order to know where to begin. A survey of the present conditions is an essential guide to one's thinking, whether in evaluating the course he is now following, or in embarking on a new venture."

In the present day economy, the purchasing power of family income is limited, due to the increased standards of living and the rise in price levels. In this context wise purchasing, offers a solution towards increasing the family's real income, which is the flow of goods and services available for any given period of time. Wise buying implies a basic understanding of the family's needs according to the market conditions and buying only the essentials at the lowest price. All these necessitate educating the consumer buyer in good buymanship. For that purpose comprehensive studies of the present day homemaker's purchasing habits are required. This study was therefore undertaken to find out the purchasing habits of a selected group of homemakers in Coimbatore City, with regard to food, textiles and house-hold equipment. According to Ketchum (1953)⁶ "The need for information on how to buy well, comes out over and over again in questions about house-hold equipments, food purchases, textiles, and many other items." These are the homemakers responsibility. Information on how, where and when the homemakers buy the goods, the various factors which influence the purchase of these commodities, and the

4

problems encountered by them while making the purchases is the objective of this study. It is hoped that the findings revealed by this investigation will help the homemakers to find some solutions to their purchasing problems and enable them to get their rupees' worth of commodities.

Information on such studies is not available in India. A beginning appears to have been made to help homemakers appreciate their role as consumer buyers.

II. REVIEW OF LITERATURE

Since this study is of the purchasing habits of homemakers the review of literature includes -

- A. Purchasing habits and consumption patterns.
- B. The Consumer-Buyer,
- C. Importance of wise purchasing for wise consumption,
- D. The homemaker as a Consumer Buyer,
- E. Factors affecting Consumer purchase,
- F. Markets, retailing Service and the Consumer,
- G. Consumer Protection and education,
- H. Consumer Credit,
- I. Steps in Purchasing.

A. Purchasing Habits And Consumption Patterns:-

Adinarayanan (1950)⁷ defines habit as a "learned activity that has become almost automatic." According to Bigelow (1953)⁸ "Habit is a device for economising the energy required in making frequently repeated decisions or choices." Habits may be good, bad or indifferent. Habits once cultivated become part of an individual.

Like all good habits, good purchasing habits, when acquired and practised, place the homemaker in an advantageous position as manager in her home. Gordon (1953)⁹ defines purchasing or buying as "acquiring goods or services by paying a price for them". Reid (1938)¹⁰ says

that, "buying to be efficient must be based on a thorough knowledge of the needs of those, for whom the goods are purchased and a thorough knowledge of qualities and prices of goods in the market and their relations to use."

Purchasing is necessary for the satisfaction of human wants. The rational way of purchasing is, buying and consuming those things, which give satisfaction, and discarding those which do not. This rational way of purchasing if cultivated, leads to wise and intelligent purchasing habits, which would be an asset to any homemaker. Wise buying habits are achieved when our needs are carefully and consciously studied, and fulfilled in relation to the goods and resources available.

Purchasers or buyers are those people who acquire goods or services by paying a price for them. Menabara (1958)¹¹ says, "The function of purchasing is to buy the best quality of merchandise at the lowest price."

O'Brien (1961)¹² opines that the particular responsibility of today's consumer is to purchase goods and he must purchase goods in order that the economy keeps going.

Market selection which decides the pattern of consumption includes decision making by the purchasers such as: where, when, and how to buy. These decisions when once carefully thought through and taken can be safely repeated every time a similar decision is needed. Careful and intelligent decisions must be made in the

first instance itself. Wyand (1937)¹³ points out, "One of the outstanding characteristics of choice is its domination by habit, modern life would be impossible otherwise." There is no more miserable human being than one in whom nothing is habitual but indecision. Kelley (1938)¹⁴ is of the opinion that "good habits promote intelligent consumption, but bad habits retard it." The purchasing decisions, that a successful homemaker takes, and the results she achieves, are worth studying, by those who desire to be wise buyers.

Good purchasing habits are dynamic. If purchasing habits are static, inspite of changes in the other spheres, it will be detrimental to the consumer. Wyand (1937)¹³ cites an example for such a state of affairs in Ireland in the 1830's when people preferred to starve rather than modify their food habits during the potato famine.

B. The Consumer Buyer:

Wyand (1937)¹³ states "The important role of the consumer buyer is not disputed but, the identification of the consumer is rather a difficult task. The consumer, to the shop-keeper is one who buys from him, to the Government official the consumer and the public are synonymous, to the statistician he is the one who destroys utility in the act of consumption. To the economist however, a consumer is any person who destroys utility in

the direct satisfaction of human wants." In this sense every one is a consumer.

Consumer as defined by Joles (1938)¹⁵ is a "user of goods". Today when we talk of the consumer, it includes the consumer as a spender of money for the purpose of satisfying wants. It is the consumer who determines, what should be purchased, how much should be purchased, the place of purchase, and the manner of purchase. In the traditional economic theory the consumer was considered to be a rational decision maker. Just as business firms operate to maximise profits, individuals also operate to maximise satisfactions. O'Brien (1941)¹² says that due to the influence of Keynesian economic theory, the consumer was conceived as a spender of money, for satisfying his wants. Hence all people as consumers, spend money to buy something or other from the market for satisfying their needs and wants. In other words they are buyers.

Joles (1938)¹⁵ considers that the problem of spending or converting money into goods is "closely related to the problem of utilising goods, it seems logical to include spending in the concept of consumption and to accept the consumer as spender of money as well as user of goods."

The question "why do people buy?" can be answered in many ways. The common answer to this question will be "to satisfy their needs or wants." The need may be

physical, biological, aesthetic, educational or psychological. Satisfaction of the need is the prime motive for purchase. Kelley (1953)¹⁴ opines "the satisfaction of human wants is the goal of all economic effort, the strategic position of wants is easy to establish." The commodities used for the satisfaction of human wants may be classified into necessities, comforts and luxuries. The necessities are those commodities which are absolutely essential for normal living. Whether they are small or great, they must be satisfied. Comforts refer to such commodities and services, which a person would like to consume, which would add to his efficiency, and make him comfortable. Luxuries are those which are not very necessary and which can be dispensed with, without any hardship. Necessaries, comforts and luxuries which an individual is accustomed to, make up his standard of living. Standard of living of an individual is defined by Gross and Crandall (1954)¹⁵ as "Consisting of his mental picture of the commodities, services, and satisfaction, which he considers so essential that, he will struggle to get them, or if unable to attain them, he will feel discomfort."

G. Importance Of Wise Purchasing For Wise Consumption:

The family requirements need to be assessed properly, purchases made and consumption controlled efficiently, and intelligently, if the homemaker wants to maximise satisfaction in her home. Wise consumption is possible

only when there is a wise purchase. Therefore the basic requirement for improving the standard of living at a specified income level is wise purchasing.

Since production depends upon consumption, wise consumption is an absolute necessity for a stable economy. Wise consumption is based upon wise purchasing. Wise purchasing, is getting goods in the best way with least money and effort. Miller (1967)¹⁷ advises the consumers "remember that your influence is far reaching, farther than the purchases you make each time you visit the grocery store..... If consumer direction is to be successful it requires the consumers being informed." Therefore it is the duty of every homemaker to shop wisely, so as to help create better and more goods for the future.

D. The Homemaker as a Consumer Buyer:

In olden days, when women were not employed outside the home, the bulk of the family purchases were made by men. However, today the larger part of family purchases such as food, clothing and equipment are made by women. Maynard et al (1933)¹⁸ says "the manufacturer and merchant of today must realize the importance of the woman purchaser and her far reaching influence in the selection of goods and services. Merchandise must appeal to women, publicity must be adapted to their motivation, and the places of sale and the accompanying services must be adjusted to their needs, whims and fancies."

The homemaker shoulders the major responsibility in planning and executing the family consumption. As a consumer, she plans her requirements. In the market, she is at the centre of her consumer buyer function. In marketing she must decide whether to spend more time and save money, or spend more money and save time and energy. Therefore the acquisition of knowledge of quality, grades and standards is a part of her responsibility as an intelligent consumer buyer. The homemaker being the most important consumer buyer, is the one who is responsible for deciding the family's pattern of buying and consuming.

In the days prior to the industrial revolution the problem of choice of goods was not as important as it is today, since the goods produced at home were consumed there. Since then along with the advantage of getting what she wanted from the market, she was also posed with the problem of choosing from a wide variety of goods. Producers vied with one another to catch the consumers eyes, which made choices more complex. The limitation of the family income made the problem even more difficult, since the homemaker had to choose the best from a very wide range of goods without having particulars of all the goods on the market.

According to Miller (1962)¹⁷ the consumers today have changed to some extent ^{from} what they were previously. Today's consumer has more money to spend, is living longer,

marrying earlier, and is enjoying more leisure, is better educated and as a result of the scientific developments her knowledge has expanded more widely than the consumer of earlier days.

Reid (1934)¹⁰ is of the opinion that the first question the homemaker needs to consider is whether "to make a good or buy it; whether to use family labour to perform a service or pay for it out of the money income." Bigelow (1953)⁸ points out a family can "control to a great extent the real income which is available for the use of its members. By care in buying, it is possible to get from a given money income 10 to 20 percent more in the way of goods for daily use."

Wise buying at each step for each and every commodity increases the standard of living. Kelley (1983)¹⁴ stresses, "Effective buying is the most direct way by which the average family can raise its standard of living." Even people with ample spending power may fall short of satisfactory living because of their ignorance or lack of understanding of wise purchasing, planning, buying and consuming. The homemaker with good purchasing habits can inculcate in her children such habits from their childhood, so that they will become better homemakers in the future. Bigelow (1953)⁸ says that the family today is dependent upon the industry and specialised farms to a very great extent. However, the final preparation and utilisation of the goods

take place in the home with the homemaker making the actual distribution among the various members.

In the purchasing for the family requirements the homemaker has more responsibilities than any other member of the family. The problem faced by her while purchasing are when, where, and how to buy. Coles (1932)²⁰ states that "the homemaker must assume the duties of consumer buyer, go to the market, seek out and buy the commodities and services desired."

Purchasing makes many demands on the time, energy, and intelligence of the homemaker. Therefore much of the family's satisfaction depends on her abilities and knowledge. Certain traits are attributed to women as especially suitable for the purchase of goods. Hyand (1937)¹⁸ claims that "women are more careful as buyers than men, shop around more and are harder to please." Coles (1938)¹⁵ mentions that women are said to be more patient as buyers than men, are more willing to spend time in shopping, and therefore get more for their money than male purchasers.

A study made at the University of Missouri by Amburgey and Coles (1934)² planned to throw light on the familiarity of homemakers with advertising, brands, labels and their use of these devices in purchasing foods, on 450 homemakers showed that: In three fourth of the families, the homemaker bought or helped to buy the staple groceries and fresh fruits and vegetables; in two thirds of the

families meat was bought by the homemaker; and in half the number of the families, milk was bought by the homemaker. In addition, sixty percent said they gave direction for purchases made by other members of the household. Another study was made at Wilmington with home economics pupils and commercial education classes by Everett(1940)²¹ to find out who buys family groceries. They were asked to keep records at home of the visits made during four consecutive weeks, to grocery stores by the different members of the family, and the total value of their purchases. A summary of the records collected indicated that the women made 50.8 percent of the total purchases, the men 10.4 percent, men and women together 0.5 percent, and children from 15 to 18 years of age 27.5 percent, and below 15 years of age 10.8 percent. Twenty families made their purchase through telephone for which the values were not noted. Another study made by Metheny, and co-workers (1932)²² revealed that in two thirds of the families, the homemakers purchased the food. The husband and wife together shopped in twenty four percent of the families, and husband shopped in seven percent. Three percent of the families had some other arrangement such as, groceries being ordered by telephone to be delivered at home or a house keeper or relative purchasing the food. Yet another study conducted by Young and co-workers(1936)²³ also showed the important part played by the homemaker in purchasing for the home. The study revealed that in

approximately two thirds of the homes, the homemaker did the shopping, in 17 percent of the homes; the homemakers were accompanied by their husbands, in nine percent of the homes, the husband did the shopping and in less than ten percent of the homes, miscellaneous arrangements were made.

Our welfare as individuals and as families, is not only affected by the amount of money we have but also by the way we spend that money. The process of converting money into goods is of very great importance to the present day family. Waite (1928)³⁴ says "House-hold purchasing falls largely upon the house-wife who has many other complex problems and duties with which to share her time." A similar opinion is voiced by Maynard et al (1932)¹⁸ when they say "It is generally recognised that the women exert a profound influence in the purchase of such merchandise even though the actual buying may be done by men." She decides the standard of living of the family which is of vital importance. Her spending pattern is important to the outside economy also since it helps to decide the direction of production to a great extent. Therefore in the interests of the family and the Nation, she has to purchase intelligently and well.

E. Factors Affecting Consumer Purchases:

Reid (1938)¹⁰ states that, being in a position to

choose goods and commodities, is indicative of a democratic set up for the consumer. However, if the consumer does not have the very basis for making a wise choice, because of his lack of knowledge of the market and the goods therein, this economic democracy will be like leading a gagged horse to the water trough.

Andrews (1915)²⁵ while mentioning how to make the homemakers purchases effective says that it depends on more efficient production, improved transportation and market legislation.

If the consumer is to choose wisely and effectively, he should have the background information about the conditions prevailing in the market, especially the retail market. Nystrom (1929)²⁶ points out that when the consumer's knowledge as to choice and available goods to suit any particular want is complete, he gets utmost value for each dollar expended.

Troelstrup (1957)²⁷ talking of motivational research being conducted in the U.S.A. to study the 'why' behind consumer purchases says, "Since the retailer aims to sell you goods and services, it is largely up to you to learn how to plan and buy as rationally as possible." The consumer should know what motivates him to make a purchase. He can then understand the sellers approach.

Nystrom (1929)²⁸, discusses the factors which affect

choice under the heads 'subjective' and 'objective' conditions. Wyand (1937)¹³, classified the factors affecting choice under two main categories:

(1) Immediate determinants (2) Remote determinants.

Under immediate determinants he says sense percepts and psychic factors influence choice. Sense percepts are the means by which we become aware of the nature of reality which are influenced through form, colour, taste, odour, touch and sound. Psychic factors result from the individual's impression based upon ideas. They are determined by memory, imagination and association. The remote determinants are again classified under individual and group, physical, economic and institutional determinants. The remote determinants under individual and group determinants fall under personal factors, sex differences, racial influences, habit and custom. They physical determinants are the physiological restrictions, biological factors, climatic influences and geographical factors. Economic determinants are income, prices, business cycle, economic order, status of technology, transportation, the market set up and commercial manipulation. Under institutional determinants, Wyand mentions the influence of private agencies, governmental authorities and consumer co-operatives.

It is seen that the immediate determinants are the characteristics, that objects are thought to possess. They are the raw materials on which the value judgments of the remote determinants rest.

The methods used by producers and retailers to win customers are varied. All purchasers are influenced by some sales promotion techniques. Goodyear and Klorr (1954)²⁸ define sales promotion as, "The method used by manufacturers, packers, distributors and retailers to tell a large number of people about their products." Asha Deshmukh (1962)²⁹ studied the influence of advertisements on the homemakers purchasing habits. She found that more than 75 percent of the homemakers were influenced by advertisements in their purchasing of beverages, toilet soaps, washing soaps, face powder and dental preparations.

Cochrane and Bell (1956)³⁰ are of the opinion that the consumer demand which is the quantity which the consumer stands ready to buy - or take - under certain conditions is decided by his income, tastes and preferences and prices of substitute goods or services.

Sapir (1957)³¹ says that fashions affect consumer choice. "The individual in society is only rarely significantly expressive in his own right. For the vast majority of human beings the choice lies between unchanging custom and the legitimate caprice of custom, which is fashion."

The members of the family affect the choice made by the homemakers. Matheny (1957)³² found that children influenced the foods selected by the family. Ninety one percent of the mothers reported that the children requested the purchase of certain food items regardless of whether

or they accompanied the parents on shopping trips.

The effect of rising prices without a corresponding rise in income is a fall in the standards of living. The purchase of the homemaker is affected by the price levels. This is brought out by Anasuya Gyanchand (1961)³² who is of the opinion that in India, the women who are primarily concerned with family budgets feel the effect of rising prices most severely. Rana (1961)³³ observes that in the case of the fixed income group the problem is more severe. The middle classes and the individual workers have been the worst sufferers on account of the rise in prices ever since the war. He also cites a survey conducted in Bombay regarding the economic conditions of middle class families, it was found that nearly 68 percent of the people interviewed were of the opinion that food prices were going up.

F. Markets, Retailing Services and the Consumer:

Beem (1938)³⁴ points out that "The market today is a buyers market and not a seller's market. It is malleable as never before and hence much influenced by our buying habits. It is, in short, a reflection of the average housewife's buying intelligence." Cournot (1939)³⁵ says "Economists understand by the term 'market' not any particular market place in which things are bought and sold, but the whole of any region in which buyers and sellers are in such free intercourse with one another, that the prices of the same goods tend to equality easily and quickly."

Jones (1938)¹⁵ says that the ability of the consumers to purchase wisely using the minimum of time, effort and money depends to a large extent upon the skill of the buyers and upon the facilities provided to the consumers by the market. The consumers should have adequate knowledge of the market in order to appreciate and understand how it serves them and how it fails to serve them. The consumers should realise the importance of the market under the present system of specialisation. In the first place the consumers need to acquire information regarding the goods that are available in the market. Secondly they should be in a position to analyse the available products according to the use to which they are to be put and lastly they should be aware of the principles of good buying. Andrews(1935)³⁶ is of opinion that "A good market helps make a poor buyer more effective, and a good buyer increases the efficiency of a poor market up to its maximum." Reid (1938)¹⁰ pointing out the characteristics of a good market says that it provides the consumer with the commodities that they want and stand ready to pay for; it provides a wide variety of commodities for the consumers to choose from; no harmful products are offered for sale without taking due precautions to protect the consumers; consumers are given information about the presence of goods in the markets and about their relative merits; high pressure salesmanship is not in evidence; retailing services are provided to those who want them, there is no inefficiency or waste and fair prices prevail.

Hanson E. L. (1956)³⁷ points out the characteristics of a perfect market as one, where there is a homogenous commodity, a large number of buyers and sellers who have direct contact with each other, where there is no preferential treatment and the means of transport are cheap.

One of the factors which affect the purchasing by the consumer-buyer is the retailing services offered. Retailing as defined by Kelley and Brisco (1957)³⁸ "is the distribution of goods and services to the final or household consumer." Distribution includes all the activities of transferring goods from producers to consumers, which involves storage, grading, packaging, packing, display, advertising and selling. Retail stores as defined by Tousey et al (1963)³⁹ is a "Place of business in which goods of various kinds are assembled for sale to the ultimate consumer." It is with the retail market that the homemaker mostly deals. The retail services rendered by the ordinary retail stores and the consumer co-operatives are more or less on similar lines. The retailing services as enumerated by Jones (1938)¹⁵ are as follows:-

The retailer provides the varieties and quantities of goods desired, at the prices the consumers are willing to pay. The retailer is an important bridge between the consumer who is the user of goods and the manufacturer who is the producer. The retailer informs the consumers about the availability of goods where, when and at what prices they may be secured through advertisements, sales persons and

proper display in the stores. The retailer arranges and re-arranges the goods received from the wholesalers and manufacturers according to the convenience of the consumer. He stores the commodities in his store and thus keeps the reserve supply available at all times. He wraps, packages and transports the goods to consumers. He bears the risk from loss through fire, flood, through deterioration of perishable goods and changes in demand. He finances the purchases of the consumers by allowing them to use charge accounts and gives the privilege of ordering through phone. Among these services, credit facility is the most important.

The Consumer Co-operatives are important as retailing agencies since they are advantageous to the consumers. Douglas (1936)⁴⁰ lists the advantages of consumer co-operatives as, it socialises for the benefit of consumers the profits which would otherwise be made in retail trade. It reduces the costs of selling and distribution by removing the necessity for many of the competitive wastes which private business find necessary to practise in order to survive. The co-operatives can visualise the demands of their patrons far more accurately than can private stores and industry and will have appreciably less waste and spoilage from over stocking. Co-operatives provide their members with a far higher quality of goods for their money than does private trade. Co-operatives can obtain a large amount of able, unpaid services for which commercial undertakings have to pay large sums. Co-operations according to Johnson(1941)⁴¹

is a scheme of economic reorganisation of production and distribution for the services of the people rather than the profit of individuals. Galvert (1959)⁴² says, "Co-operation is a form of organisation wherein persons voluntarily associate together as human beings on a basis of equality for the promotion of the economic interests of themselves." Since the consumer co-operative is for the benefit of the consumer, the services offered are usually expected to be better than that offered by other retail stores.

The importance of consumer co-operatives has been understood by our planners and the Government especially in the context of the present day economy when every step possible is being taken to maintain the price level.

Tana (1961)³³ says that the need for consumer co-operatives arises from the wide spread adulteration, high level of prices and lack of awareness of consumer problems.

G. Consumer Protection And Education:

"The problem of consumer buying is a very leading one in these days of economic uncertainty", says Taylor (1936)⁴³.

Kaji (1958)⁴⁴ giving her suggestions for improving the position of the consumer, suggests - (1) the Government taking necessary steps to determine the extent and nature of the consumers' problem (2) An extensive scheme of consumer

education be worked out, (3) The existing legislation be strictly enforced, (4) Independent consumers council with adequate laboratory facilities be established by the Government.

During the last decade, the problem of adulteration has caused great concern both to the Government and public. Dr. Subramanyam (1961)⁴⁵ gives the percentage of adulteration in the different states for the year 1959 as ranging between 15 to 66.1 which gives an all India average of 30 percent. Besides adulteration of foods, use of inaccurate measuring devices, is being practised now-a-days and thus the consumers are deceived.

Joshi (1961)⁴⁶ states that "In India we have certain legislative measures which aim at protecting the consumer's interests. For example the laws relating to weights and measures, trade marks, and prevention of food adulteration.

Chatterjee (1961)⁴⁷ made out a case for consumer protection in India against pilferage, contamination, climatic extremes, storage and transportation conditions, bacterial action, insect infestation and damage.

The studies conducted in other countries about the buying habits, reveals the need for educating the consumers to improve buying practices. The study conducted by Kory (1945)⁴⁸ showed that consumer education resulted in significant improvement in purchasing practices. The studies

conducted by Amburgey, Jannet and others cited previously show the importance of consumer education in improving the purchasing practices of consumer buyers.

"The problems of consumers' education is complicated in our country, where vast majority of population reside in rural areas, having very low standard of consumption, and because of their extreme poverty they would hardly go for a standard."(Kaji 1953)⁴⁴.

"One of the major aims of consumer education should be to teach us how to spend our money, time and energy to bring our expressed wants into harmony with our considered needs within the limits of the income of each family."

According to Sudder, (1949)⁴⁵ there are four major fields of work in which educational programmes are needed so that consumers may buy wisely. They are: —
 Information about the availability of various products;
 Knowledge of common quality of food products; skills in effective utilization and preparation of good products;
 and knowledge of the effects of market organisation and of service on price and quality of good products.

The main agencies or institutions which can undertake the job of educating the consumer are the family, the public school, the individual business firms, local state and federal Government, agencies, private colleges and consumer organisations (Gordon, 1957)⁵⁰. It seems logical that consumer

education should be under

Nystrom, P.H. (19

economics teachers are

handle consumer educa/

The need for

by Cook (1929)⁵², :

defines a standard as

custom or general consent - in a

degree, material, character, quality or am-

as that which is proper and adequate for a given purp-

Standards are as old as man himself. None knows when the

standards were first established, but they go back to the

pre-historic time. In the Holy Bible⁵⁵, Moses had laid

down standards for weight and measures.

"Thou shalt have a perfect and just weight, a perfect and just measure shalt thou have; that thy days may be lengthened in the land which the Lord thy God giveth thee."

According to Banerjee, S.(1961)⁵⁶, "standardisation offers an assurance of the quality of goods and services purchased, better value for money spent, eliminates disputes with suppliers or at least provides convenient method for settling such disputes." Montgomery (1957)⁵⁷ says "standards are words we use in talking together.... Some words are made precise when people having a special interest in a particular commodity come to an agreement that the words

been the system of 'marking', and certification of goods before their "marketing". This will help the consumers in getting good quality products. Inspection of food industries is a more direct way of ensuring quality. Certification marks need quality control says Mehta (1953)⁵⁹. "Quality control reduces and rejects sub-standard products, thereby reducing the cost of production and increasing productivity.

Discussing the role of the Indian Standards Institution in helping the homemaker, Murthy (1953)⁶⁰ says, "It can help the house-wife in many ways, and make her living smoother than at present." When she buys standardized commodities, she need not waste money and time.

The consumer association of India as stated in its memorandum (1961)⁶¹ stands between the Indian Standard Institute and the ultimate consumer. The aims of the Consumer Association of India are: (1) To promote the study and evaluation of consumer products and services, (2) to undertake consumer research and determine the needs of consumers and to circulate information about the evaluation of consumer products and needs of consumers, (3) Introducing methods for improving the quality and utility of consumer products which in turn may provide the consumers with good quality products, (4) To co-ordinate the efforts of consumers and producers in devising ways and means for the improvement of materials, products, appliances, processes and methods, in respect of consumer products and services, (5) To popularise the use of standardised quality controlled and certified

power since one need not have liquid cash to make a purchase. This makes possible the using of goods and consequent raising of the standards of living. Credit is useful to the retailer since it makes it possible for him to use high pressure sales tactics which yield good returns.

One important argument commonly made against credit system is that it weakens sales resistance. People tend to spend more freely and carelessly than when every purchase means paying cash. The process of looking into the availability of money is less in the case of credit purchase and hence careless and extravagant buying will result.

According to Coles (1938)¹⁵ "Credit secured by consumers at retail stores may be of two types" --

1. open-account or book credit and 2. instalment credit.

Tousely et al (1962)²⁰ says that consumer credit could be "classified into two general types: open account credit and Instalment credit." The distinction between the extremes of these two types is very clear.

1. Open Account Credit: "The regular so called "30 days" charge account is the typical form of open credit. A statement is sent by the retailer at the end of the month for all the purchases made during the month, and payment is supposed to be made by a stipulated date of the following month." It may also be extended for periods longer than 30 days. In small retail shops, the customer is allowed to take things on credit which is entered in a book and paid for at the end

of the month or at the appointed time. Instalment credit requires a much longer time to repay Tousey (1962)³⁸ says, "A clear example of Instalment Credit is the making of a down payment on a purchase followed by a series of monthly payments with interest being charged and the entire transaction secured by a sale agreement."

The advantages and disadvantages of the open account credit as discussed by Joles (1938)¹⁵, Troelstrup (1957)²⁷, and Tousey (1962)³⁸ are given below:

The period of postponed payment makes this method of buying desirable to the purchaser who does not have ready cash available. Generally the consumers who adopt open account system find that their choice is limited to a particular shop but that the trouble of going in search of a shop where they can get goods easily is saved. The open account system facilitates ordering by phone or mail. Once the consumer has established the charge account in a particular shop, he can easily place orders by phone without himself personally visiting the shop. Children or any other members of the family can do the shopping because they need not pay cash each time they purchase, thus helping the homemaker. Buying on open account helps in record keeping. The family can keep track of the expenditure thus making the record keeping and maintaining of the budget easy to the homemaker. It is easier to return goods when bought on a charge account than when paid for in cash.

The disadvantages in following the open account system

are: Most of the consumers do not recognise the costs involved in the open account system. The retailer incurs certain expenses in keeping records of the purchases, in sending bills, in making collection and in recording payments. All these expenses are added to the cost of merchandise. The consumers are induced to buy and as a result the buyer may have to undergo undue sacrifices of more important purchases. Imprudent use of such accounts may result in an accumulation of bills. As a result of this, payments are extended into the future and result in curtailment of purchasing power.

Instalment Credit: Wickell and Dorsey (1940)⁵³ define instalment credit as, "Getting the use of, but not the title to the goods in the present, and paying for this use in small instalments over a stated period of time." Instalment plan refers to the method of instalment credit which has been a long accepted fact in western countries. This plan is better adopted to durable goods and to goods of resale value. Tousley (1932)⁵⁴ is of opinion that "The effect of instalment credit upon the economy is greater than the effect of open account credit." The reason is that, instalment credit requires a longer period of time to repay, and this affects the consumers' ability to make new commitments for that period of time.

The advantages and disadvantages of instalment credit as discussed by Reid (1934)¹⁹, Coles (1933)¹⁵, Gordon(1943)⁹,

Nickell and Dorsey (1960)⁴³ and Tousley (1962)³⁹ are given below.

It enables the consumers to possess the goods before the actual payment is complete. Consumers can possess certain durable goods which they may not be able to, if it had to be bought by paying cash. Instalment credit gives the consumer the immediate use of goods after the first instalment is paid off. It helps in raising the standard of living of the people. Instalment credit is said to decrease the costs of goods, since increase in demand, will result in a trend to increase supply which will lead to large scale production, and ultimately lower costs of production and prices. It enables the consumers in making more rational choices. To some extent, it encourages thrift and helps in budgeting. It increases the homemakers present resources when used to buy goods which conserve her energy and time thus lessening the burden of homemaking activities.

The disadvantages of using instalment credit are: it is expensive. Some consumers may be persuaded to buy goods of inferior quality when purchasing on the instalment plan.

I. Stages In Purchasing:

Kelley (1953)¹⁴ states that purchasing or buying consists of three important and interrelated stages. They are preshopping, market selection and follow up stage. It includes valuation, choice making or the more immediate decisions as to what wants are to be satisfied first. When

values have been decided upon, carrying them out requires action in the form of real purchase. Once goods have been purchased they are useless until their anticipated benefits are realized. This stage provides a system of measuring the success of preshopping and furnishes the best basis for future buying.

Jareful planning before shopping, directs the purchases, and simplified this task while purchasing. As a result of wise planning and wise shopping, the purchaser can keep himself and his family in a better position. Feber(1955)⁶⁵ reveals that a plan is "thought to be unfulfilled if the items mentioned therein are not bought within three months after the estimated date." The plans could be long range ones for items such as housing, appliances, and furniture.

The steps in wise shopping are mentioned by Gordon (1953)⁹, Kelley (1953)¹⁴ and Truelstrup (1957)²⁷. The points stressed by them for improving buying habits are mentioned below:

Making a list of the most important needs, reading the advertisement and checking against the most unbiased information available, planning shopping trips efficiently, purchasing at reliable stores, fitting time of purchases with sales as much as possible, reading labels and looking for reliable standards and guarantees, personally inspecting goods, handling sales persons intelligently, purchasing in the most economical quantities, planning as far as possible

to pay cash, checking weights and measures, comparing prices quality, and quantity, and minimising returning goods.

The first step in planning is to study or jot down in a paper what articles are needed by the family members. After preparing the list, important wants must be chosen. This will help in keeping the things bought, and the amount of money spent on them in a proper perspective. At the same time it will direct the purchaser in planning what he would like to have when more money is available.

An easy weapon against 'impulse buying' is the shopping list, for house-hold items. Family needs should be planned a week or more in advance. A shopping list should be as detailed as necessary to help in selection at the store, listing the sizes, colours, quantities, qualities and other references. Kelley (1953)¹⁴ points out that when shopping is extensive considerable time and energy can be saved by forming a route list, which is listing all items to be purchased at one store together and deciding how to proceed from one shop to another. The preparation of this list at home helps in saving a good deal of the purchaser's and the shopkeeper's time at the store.

Consumers can develop shopping guides by collecting buymanship information on food, clothing, furniture, and equipment. The needed information can be obtained from informative news papers, magazines, booklets, publications,

bulletin books, pamphlets and advertisements.

The quality of any item purchased should be related to its use and to the purpose for which it is intended. In each commodity there may be a variety of quality goods. The purchaser needs to choose the best quality according to his tastes.

Buying in bulk saves money, time and energy for the consumers. A saving on separate delivery charges and a convenience of fewer shopping trips make quantity buying worth while if there is enough storage space available at home. In bulk buying, the purchasers have to be sure that the money needed for other purposes is not used up. Gross and Brandall (1954)¹⁶ noted that families in the low income group purchased considerably less in large quantities than did the families on medium and comfort levels.

Money management Institute (1998)⁶⁵ gives information on the right time for shopping which will depend on the needs of the family, the demand on the time of the one who buys, and the cost of goods. Learning to time buying can increase efficiency as shoppers. Many items are often bought at certain times of the day, week or year. This may be due to a particular need. In many areas grocery stores are busiest in the mornings late after-noons and in⁶ the early parts of evenings.

When the purchaser wants to make his money to do the best for him, prices should be considered. Gordon (1993)⁶ says, "If one is to develop the art of buymanship, one must

learn to bargain." Bargaining helps in the reduction of prices.

Weights and measures are standards. The purchases made should be checked for accuracy and to prevent mistakes that may cost the consumer's money.

Shopping around means going to many shops before buying a particular goods. Gordon (1953)⁴² states, "The practices of shopping around will yield savings in the purchase of all types of consumer goods from automobiles to wearing apparel."

Taylor (1936)⁴³ concluded that the average woman does not think in terms of grade, quality, and standards in relation to household commodities. Consumer standards are designed to aid consumers in making their purchases well. Labels present factual information. The various testifying agencies and research laboratories test the products available in the market and all the information is posted in the labels for the consumers to read and buy. Jannet and Williamson (1937)⁴⁴ reported, as a result of their study, that the majority of the homemakers lacked familiarity with standard sized cans, grading of goods, and labels were read by less than half.

Keeping accounts improves the purchasing habits of consumers. Kery (1945)⁴⁵ says that were keeping a record of food expenditure had resulted in economical food purchasing.

Wickell and Dorsey (1961)⁶³ advise that a system of recording expenditures is necessary if all are to share fairly in the use of family resources, and ease the financing of the family.

The sellers make every effort possible to induce consumers to buy more. Their word is accepted as truth. They try to create demand for their products and are prepared to spend money for that purpose. The consumer should have knowledge of these high pressure salesmanship, so that he can purchase wisely without being carried away by the skill of the salesman.

Many consumers think that adequate money incomes will help them to get what they want. However a knowledge of the market and planning, choosing, buying, and utilising the goods can improve consumption standards. Intelligent buying rather than indiscriminate buying is the need of the day.

III. PROCEDURE

The steps in conducting this study aimed at finding the purchasing habits of 150 selected homemakers in Coimbatore, regarding food, textiles and household equipment were -

- A. Selection of the three categories of consumer goods,
- B. Selection of the method,
- C. Preparation of the interview schedule,
- D. Selection of the sample for the interview,
- E. Conducting the interview and recording data,
- F. Analysis and interpretation of data.

A. Selection of the three categories of consumer goods:

The three main consumer goods selected for the study were food, textiles and household equipment. These three items are the main responsibility of the homemaker. The detailed classification of each category is given in the interview schedule. (vide appendix XVI)

B. Selection of the Method:

The method selected for the collection of information for the study was the 'interview' method. Burchinal and Hawkes (1949)⁶⁷ observe that an 'interview' is a free, face to face method of obtaining information by means of conversation carried on by the interviewer and the

respondent Where the focal data of the investigation are the attitudes perceptions, or interests of persons, the direct and often most fruitful approach to obtaining the pertinent data is to ask the individuals themselves.

According to Gross et al (1940)⁶³, "Interview is the best method of obtaining information concerning home management practices." So also Young (1953)⁶⁴ states, "Interview method is the only instrument by which significant memories of the past and plans for future can be ascertained."

C. Preparation of the Interview Schedule:

An exhaustive Interview Schedule was prepared to elicit information on the following points:

The family composition age, sex, education and occupation of the members of the family.

Person who purchased the article, frequency and place of purchase, and mode of payment.

The reasons for the homemakers making the purchase, patronising a particular shop and adopting cash or credit while paying for the purchase.

Whether the homemaker plans in terms of quantity or money value before actual purchase, whether the homemaker maintains accounts for the purchases made.

The criteria for making a purchase.

Problems while purchasing with their suggestions.

The schedule thus prepared was tested through a preliminary study on twelve homemakers. It was re-drafted with necessary modifications, and finalised as given in Appendix.I

B. Selection of the Sample:

The sample of homemakers for the study were selected by random sampling. Croxton and Cowden (1932)⁷⁰ say, "If a sample is drawn in such a way that each time an item is selected, each item in the population has an equal chance of being drawn, the sample is said to be a random one". The addresses of the non-resident students of Sri Avinashilingam Home Science College, were collected and every alternate house was selected for the survey. The reason for choosing the families of college students was to get maximum co-operation from the homemakers.

The sample selected was found to be distributed among thirteen different areas of Coimbatore as follows: R.S.Puram, Agricultural College, Pappanaickanpalaiyam, Race Course, Ramnagar, Tatabad, Gandhipuram, North Coimbatore, Kattoor, Raja Street, ^{and} Ramanathapuram.

C. Conducting the Interview and recording the data:

The investigator conducted these interviews daily from 10 A.M. to 12 noon; and again between 4 P.M. to 6 P.M. as the homemakers were found to be comparatively free at that time.

The interview started by establishing rapport through self introduction and explanation of the purpose of the interview, and impressing upon the homemakers that the study was being conducted only to find out their purchasing habits and not for any other reason. After self introduction the questions relating to the study were put to the homemakers.

The questions asked though based on the interview schedule was not in the same order. The details of income and family composition were asked last after the homemaker and the interviewer knew each other better. The introduction of the study naturally led to the questions of purchasing problems and so to the suggestions to solve these problems, and how actually then purchased their requirements.

After receiving and recording information each interview was concluded by expressing gratitude for the kind co-operation of the homemakers. The interviews were easy to conduct as the homemakers had been informed previously by their daughters who study in the college. The data collected was analysed and interpreted.

IV. RESULTS AND DISCUSSIONS

The results of this study are presented and discussed in the following order:

- A. Purchase of food, textiles and equipment by the family members.
 - B. Source of purchase.
 - C. Frequency of purchase.
 - D. Mode of payment.
 - E. Criteria for making a purchase.
 - F. Steps in purchasing.
 - G. Purchasing problems and suggestions given by the homemakers.
- A. Purchase of Food, Textiles and Equipment by the Different Members in the Family:

The purchase of food, textiles and household equipment, made by the different members of the family is given in Table I and is discussed in the following order - (1) Food (2) Textiles (3) Household equipment (4) Reasons for the purchasing of the items by the different members of the family.

TABLE I(a)

45

PURCHASES MADE BY DIFFERENT MEMBERS OF THE FAMILY

Item	Categories.	Number and percentage of families where purchases are made by:			
		Home- maker	Husband	Homemaker and hus- band.	Servant and others.
Food	Groceries	82 (55)	24 (16)	14 (9)	30 (20)
	Vegetables, and roots and tubers.	102 (68)	16 (11)	8 (5)	24 (16)
	Meat, fish and eggs.	34 (23)	6 (4)	..	18 (12)
	Milk.	90 (60)	..	..	16 (10)
	Janned foods	27 (18)	35 (23)	..	..
	Prepared foods	32 (21)	49 (33)	24 (16)	15 (10)

TABLE I(b)

Tex- tiles.	Categories.	Number and percentage of families where purchases are made by:			
		Home- maker	Husband	Homemaker and husband	Servant and others.
Tex- tiles.	Men's clothing	27 (18)	98 (64)	24 (16)	3 (2)
	Women's clothing	102 (68)	16 (11)	26 (17)	6 (4)
	Children's clothing.	87 (58)	23 (15)	36 (24)	4 (3)
	Clothing for festival	48 (32)	15 (10)	38 (39)	4 (3)
	Furnishing	38 (25)	16 (11)	28 (19)	10 (7)

TABLE I(a)

46

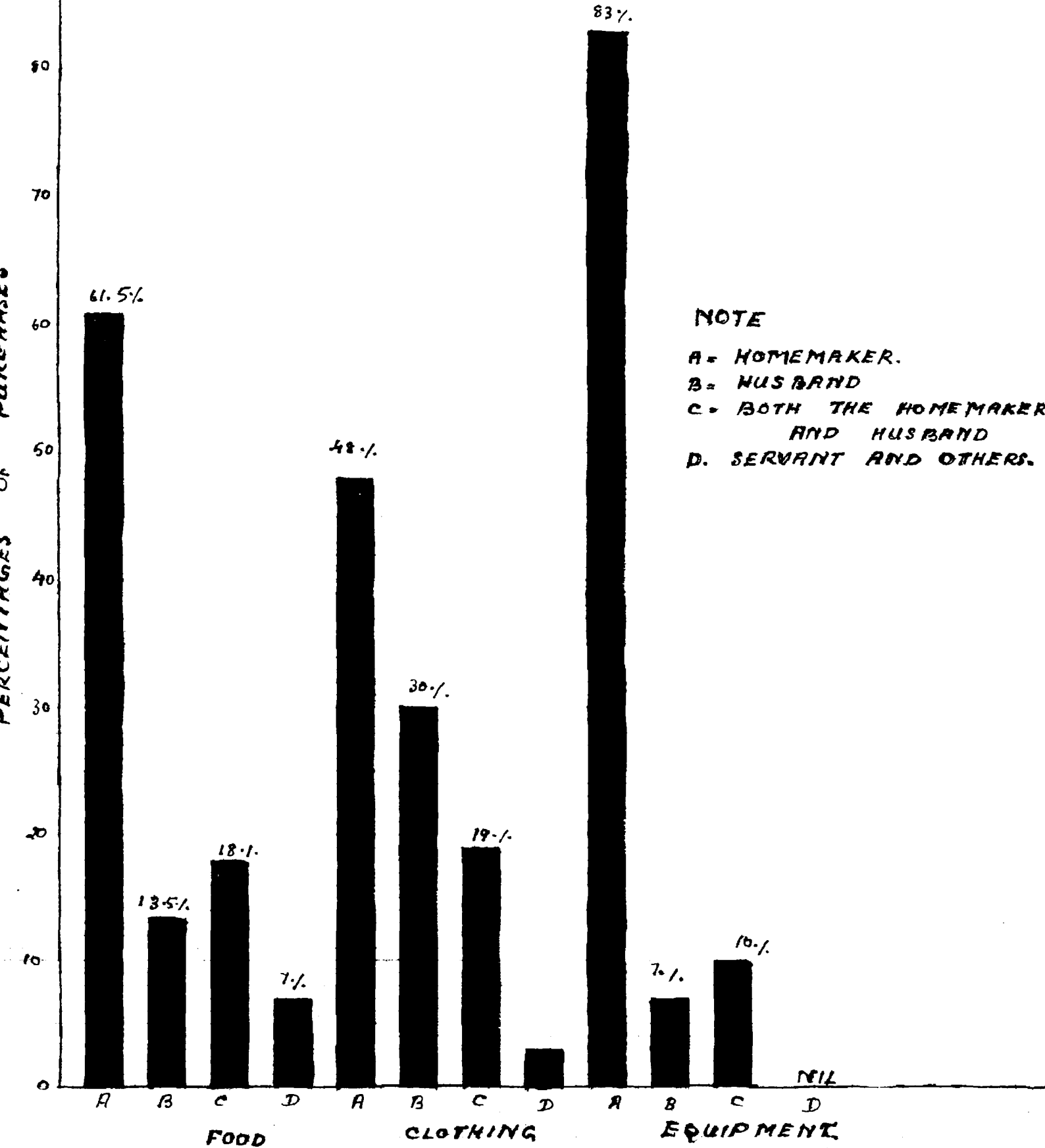
		Number and percentage of families where purchases are made by:			
		Home- maker	Husband	Homemaker and husband	Servant and others.
House- hold	Utensil (ordinary cooking)	125 (83)	10 (7)	15 (10)	.. ..
	Equip- ment.				
	Pressure cooker.	27 (18)	1 (0.66)	11 (7)	.. ..
	Sewing machine.	32 (21)	8 (6)	11 (7)	2 (1)
	Radio	3 (4)	80 (53)	23 (19)	2 (1)
	Refrigerator	1 (0.66)	4 (3)	4 (3)	.. ..
	Fan	6 (4)	50 (33)	22 (15)	2 (1)
	Iron	27 (18)	19 (13)	18 (12)	2 (1)

Table I shows the role of the homemaker in purchasing the family's requirements, when compared with the other members of the family. This is seen in figure 1 at page 47. To get a correct picture of the role of the different members in purchasing, weighted purchase indices were calculated as shown in Appendix I. The items chosen for the 'weighting' were groceries, vegetables, clothing for men, women and children and utensils for ordinary cooking purposes. These items were chosen since they were bought by all families. According to the weighted purchases index it is seen that the homemakers are responsible for the purchase of food in 62 percent of the families, textiles in 48 percent of the families and utensils in 33 percent of the families. Compared to this the husbands purchased food,

FIGURE 1

PURCHASING MADE BY DIFFERENT
MEMBERS OF THE FAMILY

47 (a)



were found to be in the income group of Rs.100-300.

The importance of the homemaker's guidance in the purchase of children's clothing and festival clothing is brought out clearly from the fact that she was solely responsible for such purchases in 58 percent and 32 percent of the families respectively. She was jointly responsible for the purchase of children's clothing and festival clothing in 24 percent and 39 percent of the families respectively. In the case of men's clothing, however, the husbands were solely responsible for the purchases in 64 percent of the families. The homemaker is therefore the key person in the purchasing of textiles for the family.

3. Household Equipment: It is seen from Table I(c) that all the families purchased utensils for cooking purposes. All the families however did not purchase all the equipment mentioned. For instance, 94 percent of the families did not have refrigerators and 66 percent of the families did not have sewing machines and none of the families possessed electric range. This is due to the fact that their financial resources did not permit any large scale investment.

It is interesting to note that the homemakers were more responsible for the purchase of sewing machines, irons, ordinary cooking utensils and pressure cookers where the initial outlay was not much when compared with the refrigerator. In the case of the refrigerator however the homemaker and husband were jointly responsible for the purchase in 44 percent

It is seen from Table II that though the reasons given by the homemakers, for their purchasing food, clothing and equipment, are the same, the emphasis differs from one age group to another. The reasons given by the homemakers as a group are in the following order—wise buying, experience, knowledge of family needs, habits and economy. The homemakers mentioned habit and assessing family needs as the most important reasons for their buying food, whereas in the purchase of textiles they mentioned assessing family needs and wise buying as the most important reasons. In the buying of equipment however the homemakers mentioned wise buying and experience as the reason for their purchasing the families' requirements.

Taking the reasons given in relation to the age group, it is found that the homemakers in the age group 20-25 years emphasize habit and economy as the reason for their purchasing whereas the homemakers in the age group 25-35 put wise buying first, and assessing family needs and habit next. The homemakers in the oldest group mention experience and assessing family needs most. This shows that at the beginning of the family life cycle more attention has to be paid to economy since incomes are limited. As the homemaker grows in experience, she makes the major part of the purchases since she could make wise selection with her experience with a better assessing of her family needs.

B. Sources of Purchase:

The sources of purchases are studied under the

following headings -

1. Food.
2. Textiles.
3. Equipment.
4. Reasons for patronizing particular shops.

1. Food: Table III indicates the purchase of food items from various sources.

TABLE III

SOURCES OF PURCHASE FOR FOOD

Food.	Number and percentage of the 150 families purchasing from			
	Co-opera- tive stores.	Particular Retail stores.	Street vendor	Any shop
Groceries.	53 (35)	78 (52)	10 (7)	9 (6)
Vegetables, roots and tubers.	22 (15)	47 (31)	30 (40)	42 (28)
Meat and fish.	..	30 (20)	8 (14)	..
Milk.	52 (40)	..	54 (51)	..
Canned foods.	..	55 (38)	..	7 (12)
Prepared Foods.	..	98 (82)	..	22 (18)

Table III shows that 52 percent of the families made their monthly grocery purchases from a specific retail store, 35 percent from co-operative stores and seven percent from street vendors. Six percent of the families did not

have any fixed shop to make their purchases from.

In the case of vegetables and tubers, 40 percent of the families purchased their requirements from street vendors. This source was highly preferred since they could get fresh vegetables conveniently and they could pick and choose. The 15 percent of families who purchased from the co-operative store, did not confine themselves to it but purchased from the open market also since Indian vegetables were not always sold in the co-operative store.

The homemakers' preference to make their purchase from one particular shop may be due to the fact that once rapport was established between the shop-keeper and the homemaker it was easier to get good quality goods and credit facilities. Co-operative stores would have been more popular if credit facilities were made available more easily. The present position is that an initial deposit is demanded by the co-operatives for credit facilities to be given, whereas the retail stores do not require this. The consumers in the lower income groups were not able to provide this initial deposit.

Milk was purchased either from the co-operative unions or particular milk vendors not only to ensure the dependability of the quality of milk but also regularity in supply at a specified time. Canned and prepared foods were purchased from particular stores by most families. A few however bought from any shop. Meat and fish were consumed by only 39 percent of families and they had particular shops to buy from.

Correlating income and the place of purchase as shown by the χ^2 test given in Appendix II with regard to groceries, it was observed that more families in the higher income brackets go to the co-operative stores than among the lower income brackets. This is due to the fact that the co-operative stores do not offer easy credit facilities. Among the low income groups seven families did not have any fixed shop to buy groceries, whereas in the higher income groups all the families went to particular shops to buy their requirements and in no case bought from street vendors.

2. Textiles: Table IV indicates the source of purchase of textiles for the sample of families selected.

TABLE IV

SOURCES OF PURCHASE FOR TEXTILES

Textiles for	Number and percentage of families purchasing from				
	Co-operative stores.	Particular retail shop.	Hawkers.	No particular shop	Out of station
Adults.	21 (14)	32 (41)	1 (1)	66 (44)	.. ..
Children.	23 (15)	66 (44)	1 (1)	60 (40)	.. ..
Festival and special occasions.	4 (3)	90 (72)	.. ..	20 (16)	11 (9)
Furnishing.	15 (13)	48 (43)	.. ..	49 (44)	.. ..

It is seen from Table IV that in the case of clothing for adults and children and furnishings, the place of purchase is more or less evenly distributed between a particular

retail store or any shop. In the case of festival clothing however 72 percent of the families preferred shopping at a particular shop since they were sure that they would get goods of dependable quality, they could get 'return goods' facilities and credit facilities if needed. 84 percent of the families purchased their festival and special occasion clothing from outside the city. These families were found to belong to the highest income group and as such could afford the time and money to shop 'Out of Station'. They preferred to do so since a wider choice was available. Less than one percent of the homemakers who bought their requirements from hawkers belonged to the lower income brackets.

3. Household Equipment: In the case of equipment the homemakers were not able to give concrete answers as the equipment for the family was bought very rarely and in most of the families it was inherited from parents. Among the homemakers who bought utensils 48 percent usually bought from one particular shop in Coimbatore which has become renowned for quality and reliability.

When we consider where purchases were made in general for food, textiles and equipment it can be seen that in the case of food items, especially for groceries, majority of the homemakers chose one particular shop. At the same time for clothing items majority of the families did not have fixed shops except in the case of festival clothing. This shows that when the homemakers have to buy commodities where they prefer to have a wider choice as in the case of clothing,

they preferred shopping in more than one place, but if they preferred standard or good quality goods and reliability of the shop keeper then they liked to shop in one particular place, rather than 'shopping around'.

4. Reasons for Patronizing Particular Shops:

Table V gives the reasons mentioned by the homemakers for patronizing particular shops.

TABLE V

REASONS GIVEN BY THE HOMEMAKERS FOR PATRONIZING PARTICULAR SHOPS.

No.	Reasons mentioned	Number of homemakers		
		Food	Textiles	Equipment
1.	Availability of quality goods.	92	80	75
2.	Nearness of the shop.	73	20	..
3.	Habit.	60	..	..
4.	Reasonable prices.	36	10	..
5.	Delivery of goods at home.	30	..	..
6.	Accuracy of measures.	25	10	..
7.	Credit facilities.	26	26	..
8.	Wide variety and range of goods.	26	46	25
9.	Guarantee.	..	..	26
10.	Privilege of returning goods.	26	20	20
11.	Convenience.	18	..	..
12.	Long acquaintance.	10	12	..
13.	Clean shop.	13	..	..
14.	Popularity of the store.	..	..	13
15.	Courtesy of the shop keeper.	10	10	10
16.	Packing of goods.	8	8	8
17.	Telephone facility.	6	..	..

From the various reasons given by the homemakers as shown in Table V, it is seen that, when deciding where to purchase any commodity they considered mainly a. The nature of the commodities to be purchased, and b. The services

offered by the seller.

a. The Commodity That is to be Purchased: In the case of groceries the homemakers looked for certain criteria like the quality of the commodity being high, and habit. Therefore the homemakers who preferred quality goods and could afford to become members of the co-operative societies, chose it as a source for their purchases. The nearness of the shop also decided where they purchased from.

In the case of textiles the homemaker wanted quality and a wider variety of goods to choose from, because standardisation was not possible to such an extent as in the case of food and also because the individual's own tastes mattered to a great extent. In most cases, the homemaker preferred to 'shop around' rather than buy in any one shop. In the case of textiles which required greater financial commitments she preferred some particular shop because the shop keepers were known and credit facilities were available. Here it was the variety available and the reliability of the shop rather than nearness which decided where she shopped. Nine percent of the homemakers purchased festival and special occasion clothing 'out of station'. These families belonged to the upper income brackets.

In the case of household equipment in general, most of the families did not patronise any particular shop, as equipment for the family was bought very rarely. In the case of household utensils however, the availability of quality goods, guarantee and wide variety of goods decided

where the homemakers shopped.

b. The Services Offered by the Seller: Among the services offered by the seller that the homemakers mentioned were, reasonable prices, delivery of goods at home, accurate measures, credit facilities, wide variety of goods, guarantee, 'returned goods' facilities, clean stores, courteous salesman, good packing and telephone facilities.

c. Frequency of Purchases: The frequency of purchase is discussed under (1) Food, (2) Textiles, and (3) Equipment.

1. Food: The frequency of purchase of food items is given in Table VI.

TABLE VI

FREQUENCY OF PURCHASE OF FOOD ITEMS

Food items.	Number and percentage of families purchasing				
	Daily	Weekly	Monthly	Yearly	Rarely
Groceries.	..	25 (16)	117 (78)	8 (6)	..
Vegetables.	75 (50)	73 (49)	2 (1)	..	..
Roots and tubers.	..	108 (72)	42 (28)	..	..
Meat and fish.	14 (27)	33 (43)	6 (10)	..	..
Janned foods.	..	1 (1)	8 (13)	..	53 (86)
Milk.	108 (100)	..	..	..	..
Prepared foods.	..	7 (6)	53 (44)	..	60 (50)

As seen from Table VI the frequency of purchase

depended on the keeping quality of the commodity and the frequency of its consumption.

Food items which have high keeping qualities, though consumed every day were bought once a month by a majority of the families, except in the case of the lower income groups where they made the purchase twice a month and in a few cases even weekly. In the case of fat and oil the purchases were made more frequently for freshness.

The frequency of purchase of meat and fish appears to depend on the frequency of consumption of that food. Vegetables and milk were consumed daily and therefore bought daily.

2. Textiles: The frequency of purchase of textiles is given in Table VII.

TABLE VII

FREQUENCY OF PURCHASE OF TEXTILES

Items.	Percentage of families purchasing during the year.					
	Once	Twice	Thrice	Four times.	No fixed time.	Monthly
Men's clothing.	33	27	6	4	28	2
Women's clothing.	31	27	11	5	23	3
Children's clothing.	24	34	9	11	20	2
Clothing for festivals.	33	19	4	..	9	..
Furnishings.	34	4	..	..	62	..

Table VII shows that in the case of all textiles requirements most of the families purchased either once or twice a year. The families in this sample did not place much emphasis on the purchase of furnishings, and even in the families which used them there was no specified time for the purchase, since the materials once bought lasted for a long time. Regarding children's clothing it was found that the purchases were made more frequently than in the case of adults' clothing, corresponding to the starting of the academic year. In the case of purchases of men's and women's clothing there was not such difference. It was found that purchases made monthly were in the lowest income groups.

3. Equipment: In the case of equipment, as it was generally bought once in a life time, the homemakers did not mention any particular frequency of purchase.

With reference to the time of purchase, it was found that the homemakers had specified times for purchasing the different items. The afternoons were used for purchasing groceries and mornings and evenings for vegetables, roots and tubers and milk. For canned foods and prepared products the homemakers were not able to give any specific time. As the homemakers did not shop frequently to purchase clothing and equipment, no regular time was specified by them.

D. Mode of Payment:

The mode of payment is discussed under (1) The mode of payment for food, textiles and equipment and (2) The

reasons for preferring the mode of payment.

Table VIII shows the mode of payment for the purchase of food, textiles and household equipment.

TABLE VIII

MODE OF PAYMENT FOR FOOD, TEXTILES AND HOUSEHOLD EQUIPMENT		Number and percentage of families adopting	
Item	Categories.		
		Cash	Credit
Food	Groceries	66 (44)	84 (56)
	Vegetables, roots and tubers.	118 (77)	35 (23)
	Meat and fish	46 (79)	12 (21)
	Milk	13 (12)	93 (88)
	Janned foods.	62 (100)	.. ..
	Prepared products	101 (84)	19 (13)
	Textiles	Men's clothing	125 (83)	25 (17)
Women's clothing		114 (76)	35 (24)
Children's clothing		112 (75)	38 (25)
Clothing for festivals		70 (56)	55 (44)
Furnishings		90 (80)	22 (20)
Household equipment.	Utensils	142 (95)	8 (5)
	Pressure cooker	39 (100)	.. ..
	Sewing machine	30 (57)	23 (43)
	Radio	92 (89)	24 (20)
	Refrigerator	7 (98)	2 (2)
	Fan	70 (88)	10 (12)
	Iron	63 (97)	2 (3)

From Table VIII it is seen that in the case of purchases which were made irregularly but frequently as in the case of vegetables, and those which were made rarely as in the case of canned foods, the mode of payment was cash. In the case of purchases which were made regularly regardless of their frequency as in the case of milk and groceries, the mode of payment was credit.

The result of the chi square test shown in Appendix III, showed that there was a significant correlation between the frequency of purchase for groceries and the mode of payment.

The same test was applied to find if there was any relationship between the mode of payment for groceries and the income of the families as shown in Appendix IV. The answers revealed that the income did not have any influence on the mode of payment.

In the case of the purchase of textiles, it was seen that the majority of the families went in for cash rather than credit. Only in the case of festival clothing it was seen that 44 percent of the families utilised credit facilities. The chi square test shown in Appendix V correlating the mode of payment adopted and the income of the families, reveals that income influences the mode of payment. The families belonging to income groups ranging between Rs.100-300 and Rs.300-600 monthly bought on credit basis, but those in the higher income groups used cash rather than credit.

For equipment like refrigerator, which was purchased by the richer families, cash payment was followed. Instalment purchase was used mainly in the case of sewing machines and radios. The majority of the people who bought on instalment basis belonged to the Rs.300-500 income group. It is seen from the chi square test in Appendix VI that more families in the income group Rs.300-500 used credit facilities for the purchase of equipment than those in the other income groups. Income and the mode of payment with reference to household equipment, showed significant correlation.

2. Reasons for preferring a Particular Mode of Payment:

The reasons given by the homemakers for preferring a particular mode of payment is given in Table IX.

TABLE IX

REASONS GIVEN BY THE HOMEMAKERS FOR PREFERRING THE MODE OF PAYMENT

Mode of payment	Reasons given	Number of homemakers.
Cash	1. Not to be in debt	54
	2. Convenient	52
	3. Cash payment controls purchase	51
	4. Accounts settled at once	50
	5. Habit	46
	6. Payment of interest avoided	36
	7. Can afford	30
	8. Safe	14
	9. Goods not needed can be returned	10
	10. No other alternative	9
	11. No fixed shop	8
	12. Can buy goods in bulk	6
Credit	1. Convenient	58
	2. Habit	54
	3. Cannot afford cash payment	35

The reasons given in Table IX make it clear that the homemakers did not consider credit desirable. This is

in striking contrast to the trend observed in western countries where consumers credit has not only come to stay but is playing an increasingly vital role in consumer purchase. This may be due to the fact that the per capita income and the standard of living are much higher in western countries than in India. The homemakers in the sample surveyed generally preferred cash payment to credit.

TABLE 6

E CRITERIA FOR THE PURCHASE OF THE THREE SELECTED CONSUMER GOODS

Criteria	Percentage of Homemakers mentioning the criteria		
	Food.	Clothing.	Equipment.
Price	55	61	30
Colour and design	7	100	..
Keeping quality	83	..	..
Storage facility	50	20	30
Advertisement	4	33	50
Fashion	..	20	..
Imitation	6	8	5
Tradition	53	30	..
Prestige	..	..	2
Brand and make	14	..	100
Label	23	44	..
Washability	..	60	..
Texture	..	55	..
Textiles from a particular producer.	..	48	..
Durability	..	90	..
Utility	..	..	90

while purchasing food stuffs, the criteria for purchasing mentioned were its keeping quality, price, tradition, storage facilities at home, the labels if they were processed foods, brands, colour, imitating other's purchases and advertisements. Most of the homemakers in the middle income groups in this sample felt that their purchase of food items would be better if they had better storage facilities.

In the case of clothing the criteria for purchasing mentioned were, colour, design, durability, price, washability, texture, goods of a particular producer, label, advertisement, tradition, fashion, storage facility and imitation.

In the case of equipment the order of the criteria for purchase were - make, utility, price, advertisement, storage facilities, imitation and prestige. The homemakers emphasised that in the case of equipment which would last for a long period usability was the main criteria for purchase.

It was observed that where expenditure on an item was high, price was the deciding factor for purchases. In this category equipment came first, clothing second and food third. Where absolute necessities were concerned price was a secondary factor for the purchase and quality came first. The purchase of equipment was influenced by the popularity of the manufacturer which in turn was determined by the

particular brand of a: ished reputation.

F. Steps in Buying:

In this study the steps observed in buying were (1) planning before buying and (2) Maintenance of accounts. Table XI gives the details about the planning by the homemakers, at various educational levels for the purchase of food, textiles and household equipment.

TABLE XI

HOMEMAKERS OF DIFFERENT EDUCATIONAL LEVELS WHO PLANNED BEFORE BUYING

Educational levels.	Percentage of homemakers in the group			
	Staple food	Perishable food	Clothing	Equipment
College	84	54	87	100
High School	75	40	70	90
Middle School	70	30	80	82
Elementary School	45	19	27	72
Illiterate	40	13	30	53
Total <u>Average</u> .	63	31	59	79

From Table XI it is seen that among the sample of homemakers, planning was done by a majority in the case of equipment 79 percent, next came staple food 63 percent, clothing 59 percent, and finally perishable foods 31 percent. The college educated homemakers planned for all the four items more than the other homemakers. When we see the method of planning the illiterates, elementary school, and



24. Maintenance of Accounts:

Maintenance of accounts was studied separately for food clothing and equipment. In the case of food items among 150 Homemakers 60 maintained accounts; in the case of textiles 81 homemakers maintained accounts and in the case of equipment 94 homemakers maintained accounts. This shows that when the financial outlay at one time is great more care is taken in purchasing.

The chi square test was applied to see whether there was any influence of education and age on the maintenance of food, clothing and equipment accounts separately. This is given in Appendices VII to XII. Education had a decided influence on the homemakers' ^{maintenace} of accounts. The more educated the homemaker the greater was her capacity to maintain accounts. Income also showed a decided influence on the maintenance of account by the homemakers.

With regard to the method of maintaining accounts 48 homemakers followed the note-book system, 27 homemakers followed the paper and pencil method and 19 homemakers maintained a file for the bills.

The homemakers when asked for their reasons for maintaining or not maintaining accounts gave the answers as shown in Table XII.

TABLE XII

REASONS GIVEN BY HOMEMAKERS FOR MAINTAINING OR NOT MAINTAINING ACCOUNTS.

Reasons.		Number of homemakers.
Accounts.	1. Have an idea of expenditure	46
	2. Reference for improving budgets	45
	3. Spending economically	35
	4. Habits	15
	5. Mental satisfaction	14
	6. Interested	6
	7. Compulsion	4
	8. No answer	2
No Accounts.	1. Not accustomed.	14
	2. Lack of knowledge	14
	3. Do not like	12
	4. No time.	11
	5. Difficult	7
	6. Not helpful	6
	7. Not interested	4

Table XII indicates that the majority of the homemakers maintained accounts to have an idea about their expenditure. When the reasons given and the educational qualifications of the homemakers were correlated, it was seen that the educated homemakers gave more reasons than the uneducated homemakers.

The main reason for not maintaining accounts is the negative attitude toward accounting. In some cases, of course, lack of essential basic qualifications were a genuine drawback. This clearly indicates the need for educating the homemakers to the need for, not only better buymanship, but good evaluation of the purchases on the basis of the accounts maintained.

N. Purchasing Problems and Suggestions given by the Homemakers.

The results are discussed under 1) Purchasing problems of the homemakers and 2) suggestion given by the Homemakers.

I. Purchasing Problems of the Homemakers:

The homemakers purchasing problems are tabulated below in Table XIII.

TABLE XIII**PURCHASING PROBLEMS OF THE HOMEMAKERS.**

Problems mentioned by Homemakers	Number of homemakers.
1. Increase in the prices of commodities.	73
2. Adulteration of food	59
3. Lack of adequate transport facilities	42
4. Crowd in the shop	36
5. Assessing the quality of goods	30
6. Difficulty in getting good commodity	29
7. Lack of time to go and buy	24
8. Difficulty in bargaining	19
9. Income inadequacy	18
10. Lack of storage space at home	16
11. No problem	13
12. Getting credit facilities	12
13. Cheating by the shop keeper	9
14. Problem of language	2

From the list of problems given in Table XIII it is clear that the sporadic increase in prices without warning was the main headache for the homemaker. Inadequacy of income was another problem. This was aggravated by the fact that when prices rose almost every month, the incomes were more or less stationary. The adulteration of food was yet another menace. The investigator analysed the source of purchase and found that those homemakers who

purchased from the co-operative stores did not mention these two items among their problems. The types of adulteration and how to detect them needs to be studied and the finding published to guide the homemaker. Standardization of all food articles and the vigilance of consumer associations would help in detecting adulteration to a greater extent.

Some homemakers mentioned crowds in shops as their problem. This was due to the fact that they shopped when the pay packet was received which happens to be the time when most of the families purchase.

Some homemakers were not able to assess the quality of goods. Ladies clubs and Home Science Institutions should organise lecture-demonstrations to help the homemakers to understand how to assess the quality of the goods they buy.

Difficulty in bargaining arose in the case of purchasing from vendors or where prices were not fixed or customary.

With regard to the recognition of problems except 15 homemakers all the rest mentioned that they had problems while purchasing. But when giving suggestions to the problems, the college and high school educated homemakers gave more suggestions than the other homemakers as given in Table XIV.

TABLE XIV

HOMEMAKERS WHO RECOGNIZED AND GAVE SOLUTIONS TO PURCHASING PROBLEMS

Educational level	Number and percentage of Homemakers.				
	Having problems	Not having problems.	Giving suggestions.	No suggestions.	Average
College	31 (97)	1 (3)	29 (90)	3 (10)	9
High School	39 (98)	1 (2)	26 (64)	14 (36)	8
Middle School	35 (95)	2 (5)	20 (54)	17 (46)	3
Elementary School	8 (73)	3 (27)	3 (27)	8 (73)	1
Illiterate	24 (80)	6 (20)	8 (27)	22 (73)	1

Table XIV shows that the more educated the homemaker the greater is her capacity to recognize problems and suggest solution.

The result of the chi square test shown in Appendix XIII proves that education influences the homemaker's capacity to recognize problems. Figure 3 shows the relationship between recognizing the purchasing problems and giving of suggestions by the homemakers at various levels of education.

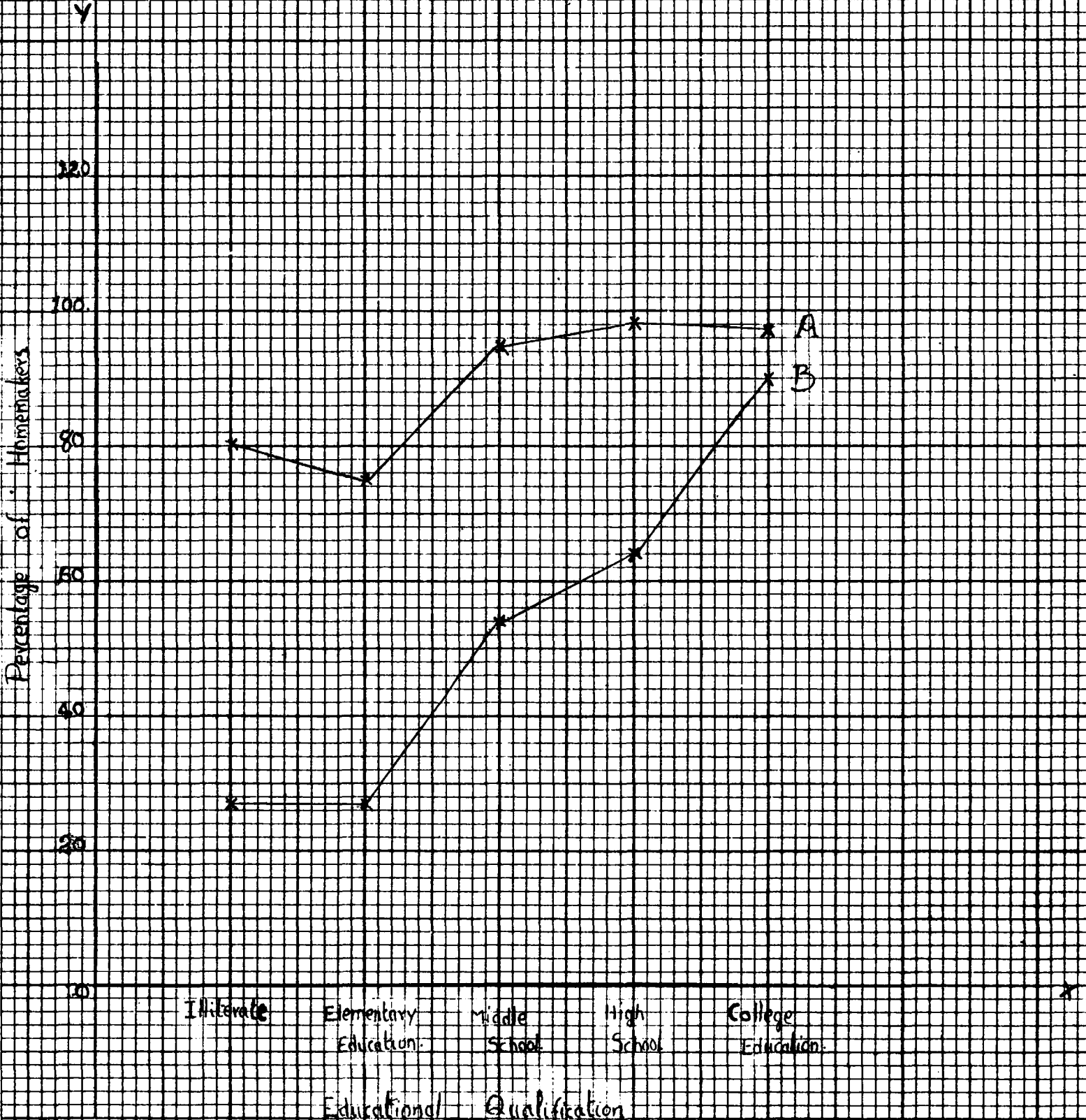
As seen in figure 3 on page 75 the more educated the homemaker the more suggestions she was able to give. The homemaker realized that, the solving of their problems

RELATIONSHIP BETWEEN THE EDUCATION AND SUGGESTIONS

GIVEN TO PURCHASING PROBLEMS SCALE

By HOMEMAKERS.

On 7.0.15 1" 20/.



Note: A = Homemakers having problems while purchasing.
 B = Homemakers who give suggestions.

depended not only on them, but also on the shopkeepers, manufacturers and the Government. The suggestions given by them fall into four categories according to the role to be played by each of these authorities in solving consumers purchasing problems. This is given in Table XV and XVI.

TABLE XV

ROLE OF THE HOMEMAKER IN SOLVING HER PURCHASING PROBLEMS

No.	Suggestions by the homemakers as to what they should do	Number of homemakers.
1.	Buying goods in large amount when the best commodity is on the market and storing it.	33
2.	Allot enough time to shop properly	32
3.	Buy goods from co-operative stores.	30
4.	Report malpractices to the proper authority	20
5.	Not go in for costly goods	16
6.	Find out when the shop is not crowded and shop at that time	14
7.	Read newspapers to know the prices of goods	14
8.	Maintain accounts	12
9.	Shop herself	10
10.	Visit many shops before buying	9
11.	Bargain if necessary	8
12.	Test and then buy in large quantities	8
13.	Get help from experienced people	2
14.	Increase her income by taking up subsidiary occupation	2

**ROLE OF OUTSIDE AUTHORITIES IN SOLVING CONSUMER'S
PURCHASING PROBLEMS**

Solution given.	Number of homemakers.
1. Role of Government	
1. Adulteration and fraud checked with a strict hand	33
2. Prices maintained stationary	26
3. Fair price shop opened in greater numbers	14
2. Role of Shop-keeper.	
1. Stock quality goods	82
2. Serve the consumer well	33
3. Price list displayed in shops	32
4. Give more information regarding quality and variety of goods on sale	24
5. Give guarantee	23
6. Be courteous and honest	23
7. Shop kept open on Sundays	20
8. Shop kept clean and attractive	20
9. Check whether all the things needed are in the shop	16
10. Provide phone facility	14
11. Improve home delivery system	13
12. Reduce crowd in shop	8
13. Goods displayed well and kept clean	5
14. Particular time allotted to homemakers	3
15. Provide returned goods facility	2
16. Give samples for large purchases made	1
3. Role of Producers.	
1. Increase production	27
2. Honest and good information provided in advertisements	9
3. Buying guides appointed in shops	8

The very fact that the homemakers had been able to analyse their problems in such a detailed fashion proves that they were very much alive to the difficulties they confronted as consumer-buyers. The action that could be taken up by Consumer Associations, Producer Associations and the local authorities could be taken up for study. The reasons given in Table XV shows that the homemakers were able to analyse their problems in a detailed and analytical manner which is the basis for improvement.

The study shows that consumer education should be oriented to the conditions available in India so as to help the homemakers maintain higher standard of living.

V. SUMMARY AND CONCLUSIONS

The study of the purchasing habits of a hundred and fifty selected homemakers in Coimbatore, with special reference to food, textiles and household equipment revealed that:

1. Among the sample of 150 families selected in Coimbatore City, the homemakers played the most important role in the purchase of textiles, food and household equipment.
2. Goods, for which the initial outlay was large or the frequency of purchase was low, were usually purchased by the man of the house.
3. The main reasons given for the homemakers purchasing their family requirements were: habit, experience, ability to assess the family's needs, skill in wise purchasing and economical buying.
4. The choice of the source of purchase depended upon the quality of goods, choice available and the reliability. The place of purchase was influenced by the income of the family and the availability of credit facilities.
5. The chief reasons for patronizing particular shops depended on the nature of the commodity that is to be purchased and the services offered by the seller.
6. The frequency of purchase of food items depended on the frequency of consumption. Accordingly foods were bought monthly, weekly, and daily; textiles were bought

once or twice a year, and equipment was bought when the need arose.

7. Where the purchase involved large expenditure at one time and the commodity purchased was used over a long period of time, the criteria which decided the purchase was price, make and quality. Where the commodity purchased was an absolute necessity quality and tradition were considered more important.

8. Regarding the particular mode of payment, most of the homemakers preferred payment in cash.

9. Statistically there was a significant correlation between the frequency of purchase and the mode of payment in the case of groceries, and income and mode of payment in the case of clothing and equipment.

10. Education influenced the homemakers' pre-purchasing plans and the maintenance of accounts. The more educated homemakers planned both the money as well as quantity of the commodity and kept accounts for their purchase. The less educated homemakers were not very conscious of pre-purchase planning or keeping accounts of their purchases.

11. The age of the homemakers influenced the type of planning they adopted before purchasing. The younger homemakers planned both the money as well as quantity of the commodity. The older homemakers were not so conscious of planning.

12. The purchasing problems of the homemakers showed that consumer education is necessary to help her to assess the quality of goods, to detect the adulteration of food, to plan her purchases properly and to understand the facilities afforded to her by the retailers. The need for consumer-buyer education is brought out clearly by this study.

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Aiyar, V.V.S. THE MAXIMS OF TIRUVALLUVAR. V.V.S. Krishnamurthy, Worlur, 1952, P.15
2. Asbury, J.H., and Coles, J.V. BUYING HABITS OF MISSOURI HOUSEWIVES. J.H.E., Vol. XXVI, 1954, Pp.19-20
3. Jannetti, A., and Willinson, M. FOOD BUYING PRACTICES - A SYMPOSIUM. J.H.E., Vol. XXIX, 1957, Pp.377-379
4. Syners, G.J., and Murray, J. FOOD MARKETING PRACTICES OF OLDER HOUSEHOLDS. J.H.E., Vol. LII, 1960, Pp.172-176
5. Good, C.V., and Sentes, D.F. METHODS OF RESEARCH. New York, Appleton - Century - Crofts, Inc., 1954, P.255
6. Ketchum, L. QUESTIONS ASKED BY FAMILIES ABOUT FINANCIAL MANAGEMENT. Proceedings of conference, Swarthmore, Pennsylvania, American Home Economics Association, 1958, P.5
7. Adinarayanan, S.P. THE HUMAN MIND. London, Hutchins Sonis University Library, 1960, P.15
8. Sigelow, H.F. FAMILY FINANCE. Chicago, J.B. Lippincott Company, 1953, Pp. 69, 75, 47, 566, 567
9. Gordon, L.J. ECONOMICS FOR CONSUMERS. New York, American Book Company, 1953, Pp.294, 296-298, 373, 370.
10. Reid, M.G. CONSUMER AND THE MARKET. New York, P.S. Crofts and Company, 1958, Pp.46, 535, 47.
11. McManara, J.E. PRINCIPLES OF PRACTICAL PURCHASING. (Abstract), J.H.E., Vol. L, 1958, P.296.
12. O'Brien, C.B. THE CONSUMER IN OUR AFFLUENT SOCIETY. J.H.E., Vol. LIII, 1961, Pp.70-82.
13. Wyand, C.S. THE ECONOMICS OF CONSUMPTION. New York, The Macmillan Company, 1957, Pp.195, 197, 89, 194, 173-270.
14. Kelley, P.O. CONSUMER AND THE MARKET. Home word, John Wiley and Sons, Inc., 1958, Pp.191, 159, 382, 386, 372.
15. Coles, J.V. CONSUMER AND THE MARKET. Chapman and Hill, John Wiley and Sons, Inc., 1959, Pp.3, 4, 89, 11, 157-158, 260-271, 278, 275, 296-298,

30. Cochran, W.W., and Bell, G.S. **THE ECONOMICS OF CONSUMPTION.** New York, McGraw Hill Book Company, Inc., 1956, P.301.
31. Vesting, J.H. **READING IN MARKETING.** Engle Wood Cliffs, Prentice-Hall, Inc., 1957, P.44.
32. Gyanchand, A. **ROLE OF WOMEN - WOMEN'S ROLE IN CONSUMER'S CO-OPERATIVES.** All India Seminar on Consumer Problems, New Delhi, Consumers' Association of India, Technical Session No. 5-B, 1961.
33. Rana, J.M. **ROLE OF CONSUMER'S CO-OPERATION AND THEIR PROBLEMS IN INDIA.** All India Seminar on Consumer Problems, New Delhi, Consumers' Association of India, 1961 Technical Session No: 5-B.
34. Aam, M.O. **EXAMINING OURSELVES AS BUYERS.** J.H.E., Vol. XI, 1929, P.740.
35. Marshall, A. **PRINCIPLES OF ECONOMICS.** London, Macmillan and Co. Ltd., 1959, P.134.
36. Andrews, B.R. **ECONOMICS OF HOUSEHOLD.** New York, The Macmillan Company, 1955, P.552.
37. Hanson, J.L. **A TEXT BOOK OF ECONOMICS.** London, Macdonald and Wain Limited, 1959, P.147.
38. Kelley, P.C., and Orison, H.B. **RETAILING BASIC PRINCIPLES.** Engle Wood Cliffs, Prentice-Hall, Inc., 1957, P.1.
39. Tousey, R.D. et al. **PRINCIPLES OF MARKETING.** New York, The Macmillan Company, 1962, p.147, 459, 459-462, 460-462, 456, 462-465.
40. Douglas, P.H. **THE REAL ADVANTAGES OF CONSUMER CO-OPERATION.** J.H.E., Vol. XXVIII, 1938, Pp.431-435.
41. Johnson, B.E. **INFORMATION AVAILABLE TO CUSTOMERS IN RETAIL STORES.** J.H.E., Vol. XXVIII, 1941, Pp.392-396.
42. North, E.M. **THE CO-OPERATIVE MOVEMENT IN INDIA.** New York, Oxford University Press, 1959, P.40.
43. Taylor, M.Y. **LEADING A STUDY GROUP IN CONSUMER PURCHASING.** J.H.E., Vol. XXVIII, 1938, Pp.292-295.

44. Kaji, J.A. **WOMEN AND CONSUMER EDUCATION**, Indian Standards Convention, Indian Standards Institution, New Delhi, 1958.
45. Subramanyam, Y.K. **TRADING AND MANUFACTURING MALPRACTICES**, All India Seminar on Consumers Problems, New Delhi, Consumers' Association of India, 1961, Technical Session Nos 2-6.
46. Joshi, L.G. **CONSUMER CONSCIOUSNESS, PROTECTION AND WELFARE**, All India Seminar on Consumer Problems, New Delhi, Consumers' Association of India, 1961, Technical Session Nos 3-6.
47. Chatterjee, A. **CONSUMER CONSCIOUSNESS, PROTECTION AND WELFARE**, All India Seminar on Consumer Problems, New Delhi, Consumers' Association of India, 1961, Technical Session Nos 1-3.
48. Koy, H. **FOOD PURCHASING AS AFFECTED BY CONSUMER EDUCATION**, J.H.E., Vol.XXVII, 1945, pp.225-229.
49. Satter, V. **THE ROLE OF CONSUMER EDUCATION IN MARKETING**, J.H.E., Vol.XLI, 1949, P.17.
50. Gordon, L.J. **THE FUNCTION OF THE CONSUMER IN A FREE CHOICE ECONOMY**, New York, The Kamenjan Foundation Lectures, 1957, Pp.38-40.
51. Hystrom, P.H. **HOME ECONOMICS AND CONSUMER EDUCATION**, J.H.E., Vol.XXXIII, 1941, Pp.145-147.
52. Cook, R. **PROBLEMS OF CONSUMER BUYING**, J.H.E., Vol.XXI, 1929, P.92.
53. Williamson, P.M. **PURCHASING PROBLEMS OF THE HOUSEHOLD BUYER**, J.H.E., Vol.XXI, Pp.724-730.
54. White, R.V. **THE INTERPRETING THE ACT OF GOVERNMENT IN STANDARDS FOR THE CONSUMER**, J.H.E., Vol.LIII, 1961, Pp.532.
55. Holy Bible. **Old Testament, DEUTERONOMY, Chapter 25**, New York, P.202.
56. Banerji, L.G. **STANDARDIZATION - VITAL FOR QUALITY IN CONSUMER PROBLEMS**, All India Seminar on Consumer Problems, New Delhi, Consumer Association of India, 1961, Technical Session No.4.

57. Montgomery, D. E. CONSUMER STANDARD AND MARKETING. Readings in Marketing, Englewood Cliffs, Prentice-Hall, Inc., 1957, P. 21.
58. Verma, L. G. STANDARDS GUIDE PURCHASING; PURCHASERS GUIDE STANDARDIZATION. The eastern Purchasing Journal, Vol. 5, 1960, Pp. 31-37
59. Mehta, P. V. CONSUMERS AND CERTIFICATION MARK. New Delhi, Indian Standards Convention, Indian Standards Institution, 1959.
60. Murthy, K. L. HOUSE WIFE AND INDIAN STANDARDS INSTITUTION, New Delhi, Indian Standards Convention, Indian Standards Institution, 1959.
61. Memorandum of Association of Consumer's Association of India, New Delhi, 1961. (Minilographed).
62. Drew, M. L. TRENDS IN CONSUMERS CREDIT. J. H. E., Vol. XLIX, 1957 Pp. 274.
63. Nicholl P., and Dorsey, J. W. MANAGEMENT IN FAMILY LIVING. New York, John Wiley and Sons, Inc., 1961, Pp. 294, 295, 298-299, 312.
64. Wilhelm, P. T., and Heimerl, R. P. CONSUMER ECONOMICS. Chicago, McGraw Hill Book Company, 1959, P. 101.
65. Faber, R. THE ROLE OF PLANNING IN CONSUMER PURCHASES OF DURABLE GOODS. J. H. E., Economics, Vol. XLVII, 1955, Pp. 427.
66. Money Management Institute, MONEY MANAGEMENT YOUR SHOPPING DOLLARS, Chicago, 1958, P. 19.
67. Birchinal, L. G., and Hawks, G. R. HOME INTERVIEWS WITH FAMILIES. J. H. E., Vol. XLIX 1947, P. 167.
68. Gross, et al. A STUDY OF THREE METHODS OF RESEARCH IN HOME MANAGEMENT. New York, Michigan State College, Agricultural Extension Station, 1940, P. 19.
69. Young, G. M. THE INTERVIEW ITSELF. J. A. D. A., Vol. XXV, 1959, P. 678.
70. Croxton, P. E., and Gordon, D. J. APPLIED GENERAL STATISTICS. New York Prentice-Hall, Inc., 1960, P. 28.

A P P E N D I X

APPENDIX II

**CALCULATION OF CHI SQUARE AND CONTINGENCY COEFFICIENT
FOR THE RELATIONSHIP BETWEEN INCOME AND SOURCE OF PURCHASES FOR GROCERIES**

No.	Income Range	Number of families purchasing from				
		Co-operative Store	Particular Retail Store	Street Vendor	No particular shop	
1.	100 to 300	3 (10.95)	12 (16.12)	9 (2.06)	7 (1.86)	31
2.	300 to 600	11 (22.61)	51 (33.29)	1 (4.28)	1 (3.84)	64
3.	600 to 1000	25 (13.78)	12 (20.28)	-- (2.6)	1 (2.34)	39
4.	1000 and above	13 (5.65)	3 (8.32)	-- (1.06)	-- (0.98)	16
		53	78	10	9	150

Notes:- The number outside the brackets is f_o (frequency observed)
The number in brackets is f_e (frequency expected).

Obtained by: $\frac{\text{Row total} \times \text{Column total}}{\text{Grand total}}$

$f_o - f_e$	$\frac{(f_o - f_e)^2}{f_e}$
Row No. 1	
7.98	5.772
11.61	7.508
12.22	10.83
7.35	9.56
Row No. 2	
4.12	1.08
17.71	9.42
2.28	3.38
5.32	0.34

Row No. 3

6.94	23.38
3.26	2.49
2.6	2.50
1.06	1.06

Row No. 4

5.14	14.2
2.84	2.10
1.34	0.77
0.96	0.96
	<u>95.420</u>

$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

$$\chi^2 = 95.420$$

$$c = \sqrt{\frac{\chi^2}{n + \chi^2}}$$

$$c = \sqrt{\frac{95.420}{150 + 95.420}} = 0.8234$$

The value of χ^2 got from the data is significant at 1 % level for 9 degrees of freedom.

APPENDIX III

**CALCULATION OF CHI SQUARE AND CONTINGENCY COEFFICIENT
FOR THE RELATIONSHIP BETWEEN MODE OF PAYMENT AND FRE-
QUENCY: FOR GROCERIES**

Frequency	Cash	Credit	
Weekly once (14)	11 (6.157)	3 (7.835)	14
Weekly twice (11)	10 (4.840)	1 (6.160)	11
Monthly once (75)	35 (33.00)	50 (42.01)	75
Monthly twice(42)	12 (18.48)	30 (23.52)	42
Yearly once (8)	8 (3.520)	-- (4.480)	8
TOTAL	66	84	150

Note:- The number outside the brackets is fo(frequency observed).

The number in brackets is fe(frequency expected).

Obtained by =
$$\frac{\text{Row total} \times \text{Column total}}{\text{Grand total}}$$

fo - fe	$\frac{(fo - fe)^2}{fe}$
Row No. 1	
4.843	3.793
5.160	5.500
8.000	1.933
5.48	2.272
4.480	5.703

APPENDIX IV

**CALCULATION OF CHI SQUARE AND CONTINGENCY COEFFICIENT
FOR THE RELATIONSHIP BETWEEN INCOME AND MODE OF PAY-
MENT: GROCERIES**

No.	Income Range	Cash	Credit	
1.	100 to 300	16 (14.08)	16 (17.92)	32
2.	300 to 500	23 (28.16)	41 (35.84)	64
3.	500 to 1000	17 (16.72)	21 (21.28)	38
4.	1000 and above	10 (7.04)	8 (8.96)	18
Total		66	84	150

Notes- The number outside the brackets is fo(frequency observed).
The number inside the bracket is fe(frequency expected).

$$\text{Obtained by} = \frac{\text{Row total} \times \text{Column total}}{\text{Grand total}}$$

$f_o - f_e$	$\frac{(f_o - f_e)^2}{f_e}$
Row No. 1	
1.92	0.261
5.16	0.945
0.28	0.0046
2.96	1.238
Row No. 2	
1.92	0.3057
5.16	0.7429
0.28	0.0036
2.96	0.9778
	<u>4.3736</u>

$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

$$\chi^2 = 4.3786$$

$$p = \frac{\chi^2}{n + \chi^2} = \frac{4.3786}{150 + 4.3786} = 0.1685$$

The value of the χ^2 got from the data is not significant at 5 % level for 3 degrees of freedom.

APPENDIX V

CALCULATION OF THE CHI SQUARE AND CONTINGENCY CO-EFFICIENT FOR THE RELATIONSHIP BETWEEN INCOME AND MODE OF PAYMENT: TEXTILES

No.	Income range	Cash	Credit	
1.	100 to 300	5 (11.76)	16 (9.24)	21
2.	300 to 600	20 (28)	30 (22)	50
3.	600 to 1000	30 (21.28)	8 (16.72)	38
4.	1000 and above	15 (8.96)	1 (7.04)	16
Total		70	55	125

Notes:- The number outside the brackets is fo(frequency observed).
The number inside the brackets is fe(frequency expected).

Obtained by =
$$\frac{\text{Row total} \times \text{Column total}}{\text{Grand total}}$$

fo - fe	$\frac{(fo - fe)^2}{fe}$
Row No. 1	
6.76	3.876
8	2.285
8.72	3.573
6.04	4.071
Row No. 2	
6.76	4.944
8	2.909
8.72	4.558
6.04	5.182
	<u><u>31.398</u></u>

$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

$$\chi^2 = 31.398$$

$$c = \sqrt{\frac{\chi^2}{n + \chi^2}} = \sqrt{\frac{31.398}{150 + 31.398}} = 0.4490$$

The value of the χ^2 got from the data is significant at 1% level for 3 degrees of freedom.

APPENDIX VI

CALCULATION OF CHI SQUARE AND CONTINGENCY COEFFICIENT FOR THE RELATIONSHIP BETWEEN INCOME AND MODE OF PAYMENT: HOUSEHOLD EQUIPMENT.

No.	Income range	Cash	Credit	
1.	100 to 300	14 (12.68)	2 (3.31)	16
2.	300 to 500	30 (38.77)	18 (10.14)	48
3.	500 to 1000	33 (29.34)	4 (7.65)	37
4.	1000 and above	15 (11.89)	-- (3.0)	15
Total		92	24	116

Note:- The number outside the bracket is fo (frequency observed).
The number inside the bracket is fe (frequency expected).

$$\text{Obtained by} = \frac{\text{Row total} \times \text{Column total}}{\text{Grand total}}$$

$f_o - f_e$	$\frac{(f_o - f_e)^2}{f_e}$
Row No. 1	
1.32	0.137
8.77	1.984
3.65	0.454
3.10	0.104
Row No. 2	
1.32	0.523
17.86	31.47
3.65	1.741
3.0	3.0
	<u>39.413</u>

$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

$$\chi^2 = 39.413$$

$$g = \sqrt{\frac{\chi^2}{n + \chi^2}} = \sqrt{\frac{39.413}{116 + 39.413}} = 0.5053$$

The value of χ^2 got from the data is significant at 2 % level for 3 degrees of freedom.

APPENDIX VII

**CALCULATION OF CHI SQUARE AND CONTINGENCY COEFFICIENT
FOR THE RELATIONSHIP BETWEEN EDUCATION AND MAINTENANCE
OF ACCOUNTS - FOOD ITEMS**

No.	Educational quali- fication	Maintain accounts	Do not maintain accounts	6
1.	Illiterate	4 (12)	26 (18)	30
2.	Elementary School	1 (4.4)	10 (6.6)	11
3.	Middle School	7 (14.8)	30 (23.2)	37
4.	High School	24 (16)	16 (24)	40
5.	College	24 (12.8)	8 (19.2)	32
	Total	60	90	150

Notes:- The number outside the brackets is fo(frequency observed).
The number inside the brackets is fe(frequency expected).

$$\text{Obtained by} = \frac{\text{Row total} \times \text{column total}}{\text{Grand total}}$$

fo - fe	$\frac{(fo - fe)^2}{fe}$
Row No. 1	
8	5.33
3.4	2.63
7.8	4.11
8	4
11.2	9.08
Row No. 2	
8	3.02
3.4	1.78
7.8	2.74
8	2.66
11.2	6.533
	<u>42.753</u>

$$\chi^2 = \frac{(f_o - f_e)^2}{f_e}$$

$$\chi^2 = 42.753$$

$$s = \sqrt{\frac{\chi^2}{n + \chi^2}} = \sqrt{\frac{42.753}{150 + 42.753}} = 0.4709$$

The value of the χ^2 got from the data is significant at 1 % level for 4 degrees of freedom.

APPENDIX VIII

**CALCULATION OF CHI-SQUARE AND CONTINGENCY COEFFICIENT
FOR THE RELATIONSHIP BETWEEN EDUCATION AND MAINTENANCE OF
ACCOUNTS FOR TELEPHONE**

no.	educational qualification	Maintain accounts	do not maintain accounts	
1.	Illiterate	4 (16.2)	26 (19.8)	30
2.	Elementary school	2 (5.94)	9 (5.06)	11
3.	Middle school	13 (13.98)	18 (17.01)	31
4.	High School	30 (21.6)	10 (18.4)	40
5.	College	26 (17.28)	6 (15.72)	32
		81	69	150

NOTE: The number outside brackets is fo (frequency observed)
The number inside bracket is fe (frequency expected)
obtained by - $\frac{\text{row total} \times \text{column total}}{\text{grand total}}$

$f_o - f_e$	$(f_o - f_e)^2$
<u>row total</u>	<u>fe</u>
12.2	9.18
3.4	2.64
.98	0.048
8.4	3.26
8.72	4.40
<u>row total</u>	
10.2	10.78
3.94	3.067
.9	0.05
3.4	3.85
8.72	5.17
	42.406

$$\begin{aligned}
 \chi^2 &= \frac{(fc - e)^2}{e} \\
 \chi^2 &= 4.400 \\
 &= \frac{\chi^2}{n + \chi^2} \\
 &= \frac{4.400}{100 + 4.400} = .458
 \end{aligned}$$

The value of the χ^2 got from the table is significant at 1% level for 4 degrees of freedom.

TABLE I. I

**CALCULATION OF THE STANDARD DEVIATION BY REFERENCE TO THE
 FREQUENCY DISTRIBUTION OF THE MAINTENANCE OF ACCOUNTS
 FOR 1952**

No.	Educational qualification	Maintains accounts	Do not maintain account	
1.	Illiterate	14 (18.8)	16 (11.2)	30
2.	Elementary School	5 (6.8)	6 (4.1)	11
3.	Middle School	17 (23.18)	20 (13.81)	37
4.	High School	32 (25.06)	8 (14.93)	40
5.	College	26 (20.05)	6 (11.94)	32
Total		94	56	150

Note: The number outside the brackets is f_o (frequency observed).
 The number inside the brackets is f_e (frequency expected).

Obtained by - $\frac{f_o \text{ total} \times \text{class total}}{\text{grand total}}$

$$f_o - f_e = \frac{(f_o - f_e)^2}{f_e}$$

NO. 10.
 $f_o - f_e$

4.8	4.26
1.8	.476
6.18	1.604
6.94	1.921
5.95	1.765

NO. 10.2

4.8	2.057
1.8	.860
6.19	2.774
6.93	3.116
5.94	2.955

 18.908

$$\begin{aligned}
 \chi^2 &= \sum \frac{(O - E)^2}{E} \\
 \chi^2 &= 18.908 \\
 c &= \sqrt{\frac{\chi^2}{n + \chi^2}} \\
 &= \sqrt{\frac{18.908}{50 + 18.908}} = 0.5048
 \end{aligned}$$

The value of the χ^2 test from the data is significant at the level for 4 degrees of freedom.

APPENDIX I

CALCULATION OF CHI-SQUARE AND CONTINGENCY COEFFICIENT ON THE RELATIONSHIP BETWEEN AGE GROUPS AND MAINTENANCE OF SAVINGS ACCOUNTS

No.	Age of the Home worker	Maintain accounts	Do not maintain accounts	
1.	20 - 25	10 (4.8)	2 (7.2)	12
2.	25 - 30	38 (18.4)	8 (27.6)	46
3.	30 - 35	10 (23.2)	48 (34.8)	58
4.	35 - 40	2 (13.6)	32 (20.4)	34
Total		60	90	150

Note: The number outside the bracket is f_o (frequency observed)
The number inside the bracket is f_e (frequency expected)

Obtained by - $\frac{\text{row total} \times \text{column total}}{\text{grand total}}$

$$f_o - f_e \qquad \frac{(f_o - f_e)^2}{f_e}$$

row No. 1

5.2	4.475
19.6	20.880
13.2	7.511
11.6	9.897

row No. 2

5.2	3.756
19.6	13.980
13.2	5.007
11.6	6.593

72.044

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

$$\chi^2 = 72.044$$

$$C = \sqrt{\frac{\chi^2}{N + \chi^2}} = \sqrt{\frac{72.044}{150 + 72.044}} = 0.5696$$

The χ^2 value got from the test is significant at 1% level for 3 degrees of freedom.

APPENDIX A

~~CALCULATION OF CHI-SQUARE AND FREQUENCY COEFFICIENT TO FIND THE RELATIONSHIP BETWEEN AGE OF THE HOME MAKER AND WHETHER SHE MAINTAINS BANK ACCOUNTS~~

No.	Age of the Home Maker	Maintain accounts	do not maintain accounts	
1.	20 - 25	11 (6.64)	1 (5.52)	12
2.	25 - 30	40 (24.84)	6 (21.16)	46
3.	30 - 35	20 (31.32)	38 (26.68)	58
4.	35 - 40 and above	10 (18.36)	24 (15.64)	34
	Total	81	69	150

Note: The number outside brackets is fo (frequency observed)
The number inside brackets is fe (frequency expected)

obtained by - $\frac{\text{row total} \times \text{column total}}{\text{Grand total}}$
 $f_o - f_e = \frac{(f_o - f_e)^2}{f_e}$

row No. 1

4.92	3.950
15.16	9.251
11.32	4.093
8.36	3.806

row No. 2

4.520	3.701
15.16	10.850
1.32	4.604
8.36	4.469

44.924

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

$$\chi = \sqrt{\sum \frac{(O - E)^2}{E}}$$

$$\sqrt{\frac{\chi^2}{\chi^2 + N}}$$

$$= \sqrt{\frac{4.244}{4.244 + 150}} = 0.400$$

The value of χ is significant at 1% level of significance.

~~CONFIDENTIAL~~

CALCULATION OF CHI SQUARE
TEST FOR INDEPENDENCE
OF THE TWO VARIABLES

No.	Age of the owner	maintain accounts	do not maintain accounts	
1.	20 - 25	12 (7.518)	-- (4.480)	12
2.	25 - 30	44 (28.82)	2 (17.18)	46
3.	30 - 35	26 (36.34)	32 (2.105)	58
4.	35 - 40	12 (21.30)	22 (12.70)	34
Total		94	56	150

Note: The number outside bracket is fo (frequency observed)
 The number inside bracket is fe (frequency expected)

obtained by - $\frac{\sum (f_o - f_e)^2}{f_e}$

fo - fe	$\frac{(f_o - f_e)^2}{f_e}$
4.482	0.673
15.18	7.925
10.34	.942
9.30	4.061
<u>44.302</u>	
4.480	.420
15.18	13.41
10.30	4.908
7.30	6.811
	<u>25.549</u>
	<u>42.378</u>

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

$$\chi^2 = 47.378$$

$$c = \sqrt{\frac{\chi^2}{\chi^2 + N}}$$

$$= \frac{47.378}{150 + 47.378}$$

$$= 0.4692$$

The χ^2 value got from the table is significant at 1% level of 6 degrees of freedom.

APPENDIX III

CALCULATION OF THE CHI-SQUARE TEST STATISTIC FOR THE
RELATIONSHIP BETWEEN EDUCATIONAL QUALIFICATION AND THE
PRESENCE OF PROBLEMS

No.	Educational qualification	Have problems	Do not have problems	
1.	College	31 (29.23)	1 (2.7)	32
2.	High school	39 (36.54)	1 (3.46)	40
3.	Middle school	35 (33.79)	2 (3.2)	37
4.	Elementary school	8 (10.05)	3 (.95)	11
5.	Illiterate	24 (27.4)	6 (2.6)	30
Total		137	13	150

Note: The number inside brackets is f_o (frequency observed)
The number in brackets is f_e (frequency expected)

obtained by - $\frac{(f_o - f_e)^2}{f_e}$

1.77	.107
2.46	0.165
1.21	.043
2.05	.418
3.4	.4215
<u>13.8943</u>	
1.7	1.07
2.46	1.75
1.2	.4501
2.05	4.425
3.4	4.446
<u>13.8943</u>	

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

$$\chi^2 = 13.894$$

$$c = \sqrt{\frac{\chi^2}{N + \chi^2}} = \sqrt{\frac{13.894}{150 + 13.894}} = 0.352$$

The χ^2 value got from the test is significant at 1% level for 4 degrees of freedom.