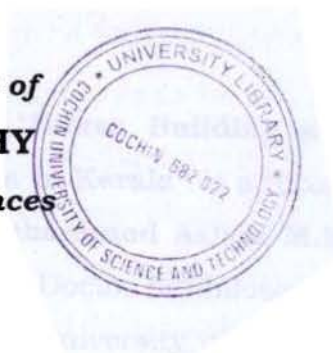


**HOUSE BUILDING AND PERSONAL FINANCE—A STUDY
OF SALARIED EMPLOYEES IN KERALA**

**Thesis Submitted to
COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY
COCHIN - 22**

*For the Award of the Degree of
DOCTOR OF PHILOSOPHY
In the Faculty of Social Sciences*



**By
MUHAMMED ASLAM M.K.**

**Under the Guidance of
Dr.P.R.WILSON
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FEBRUARY 2008



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CERTIFICATE

This is to certify that this thesis entitled "**House Building and Personal Finance—A Study of Salaried Employees in Kerala**" is a record of bona fide research work carried out by **Shri Muhammed Aslam M.K.** under my supervision and guidance for the degree of Doctor of Philosophy, under the Faculty of Social Sciences of the Cochin University of Science and Technology.

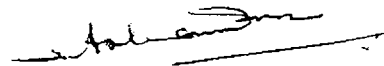
The original work done by Shri Muhammed Aslam M.K. is the outcome of his own effort and to the best of my knowledge this has not been formed the basis for award of any degree, diploma, associateship, fellowship or other similar title of any other University or Board. This thesis is worth submitting for the Degree of Doctor of Philosophy under the Faculty of Social Sciences.

Prof. (Dr.) P.R.Wilson
Supervising Guide

Cochin - 682 022
6th February 2008.

DECLARATION

It is hereby declared that this thesis entitled "**House Building and Personal Finance—A Study of Salaried Employees in Kerala**" is a record of bona fide research work carried out by me under the guidance of **Prof. (Dr.) P.R.Wilson**, School of Management Studies, Cochin University of Science and Technology, Cochin – 22. I further declare that this work has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or other similar title of any other University or Board.



MUHAMMED ASLAM M.K.

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6th February 2008.

ACKNOWLEDGEMENTS

I profusely thank the almighty God for all the blessings showered upon me in the good and bad times of this study, without which this research would never have been possible.

The completion of this research work came into a reality because of the tremendous support and sincere encouragement of many. I acknowledge all those who supported and co-operated with me in this endeavour.

The credit for overseeing the diverse demands and scope of this research topic goes to my Supervising Guide, Dr.P.R.Wilson, Professor and formerly the Director, School of Management Studies, Cochin University of Science and Technology. Words cannot express the deep sense of gratitude that I owe to my Guide who helped, encouraged, and consoled me at every stage in this work. With great respect, I express my deep sense of gratitude and indebtedness to Dr.P.R.Wilson.

I am thankful to Dr.T.Mary Joseph, Professor and Director, School of Management Studies, CUSAT and Dr.D.Rajasenan, Professor and Dean, Faculty of Social Sciences, CUSAT for their whole-hearted co-operation and encouragement.

I am highly thankful to Dr.K.C.Sankaranarayanan, my teacher, and formerly Dean, Faculty of Social Sciences, for having taken all the pain and effort in editing the entire thesis in time.

I am also grateful to Dr.C.A.Francis, my Doctoral Committee Member, and presently Professor & Director, Albertian Institute of Management, Cochin. As my beloved colleague, I have immensely benefited by his great scholarship and advice.

My special thanks are due to the faculty colleagues namely Dr. James Manalel, Dr. V. P. Jagathiraj, Dr. S. Rejithakumar, Mr. Zakkariya. K. A., Dr.Manoj Edward, Mr. D Mavooth and also to Dr. Anandakkuttan B Unnithan, Asst. Professor, IIM Calicut for their valuable contributions and timely help.

I am grateful to all other faculty colleagues in the department namely to Dr.P.Sudarsanan Pillai, Dr.K.B.Pavithran, Dr.S.Jayamani, Dr.M.Bhasi, Dr. Molly P. Koshy, Dr.Krishnan Nampoothiri, Dr.Sebastian Rupert Mampilly, Dr. Sarada Rajeev, and Dr.G.Antony, who selflessly helped me at different stages.

I take this opportunity to acknowledge with thanks the help and co-operation received from the office and library staff of School of Management Studies. I also wish to place on record my gratitude to the Library staff of Centre for Development Studies, Thiruvananthapuram, HUDCO, New Delhi, HABITAT, New Delhi, IIM Bangalore, Department of Applied Economics and Department of Statistics, CUSAT.

I am highly obliged and express my gratitude to Mr.Sibiraj K.P., DCA, and Mr.Abdul Basheer, P.A. of SMS, CUSAT for all the secretarial assistance given to me.

Many thanks are also due to all the respondents who spared their valuable time for me to gather the required data. I also place on record my gratitude to Mr.P.M.John, former Secretary, Housing Board, Government of Kerala and Mr.Shankar, Chief Executive, Habitat, Trivandrum and several other experts in the housing sector and Housing Finance for their invaluable advice and help.

I am grateful to my father, Kochumoideen and all my family members for their prayers and blessings for completing the work.

Finally, I owe a lot to my wife Mymoona and my children Nameeb, Nameera and Nabeel, who had to share the agony I experienced at times while doing this work and I dedicate this to the loving memories of my mother, (late) Zainaba.

Muhammed Aslam M.K.

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Chapter 1

PERSONAL FINANCE AND HOUSE BUILDING

Chapter 1

PERSONAL FINANCE AND HOUSE BUILDING

*Long did I cherish a desire,
Not for wealth, nor fame,
But a tiny house, tucked away,
In a corner of the earth,
Where I could be alone with my thoughts”.*

Rabindranath Tagore.

1.1 INTRODUCTION

One of the hardest experiences the mighty U.S. had relates to the great depression of the 1930's. This opened the eyes of the people who believed that government should be able to take care of their financial well-being. But the depression opened up the eyes of the entrepreneurs as well as other individuals. The experience in the extreme situations, like women painting their legs as they cannot buy stockings, women selling vegetables in the street, death due to poverty, collapsing of the financial institutions, liquidation of companies, etc. made them shift their emphasis. The individuals started to see everything from the financial angle and companies shifted the finance management from staff function to line function. The corporates realized the truth that finance is the lifeblood of the organization and individuals realized that everything had a financial dimension.

On the individual front, people gave up the great idea, of 'daily bread' and started focusing on the future. This led to the idea of permanent income. People started becoming more and more aware of their financial matters and the savings and the investment pattern of individuals started shaping up. In fact, the basis of industrial as well

as individual's financial base is the great depression of the 1930's. Thereafter the U.S. took care to avoid such a catastrophe. It is in fact these experience of the individuals that led to the formation of such powerful consumer groups. This resulted in self-development, self-dependency, individuality and the like. The conceptual clarity of the West in individual development—like if the individual is strong it is sufficient, that the next unit, namely, the family between the two individuals will be strong, and a state with strong independent individuals will be strong. This led to the concept of individual's finance, assets, solvency, financial position etc. This led to the questioning of the general concepts and basis of economics by people. People started emphasizing money and not economics. In other words, people started asking questions like “what about money?” “where is it coming from?” “where is it going?” “will I have enough of it?” etc.

1.2 PERSONAL FINANCE-DEFINED

Personal Finance as an area of study is of recent origin. It is mainly concerned with the finance of the individuals. It involves the way in which a person generates his income and the way in which he spends it or saves it for the future use. It also includes the amount and pattern of investment and management of liabilities, ancestral properties, consumer durables, etc.

The consumer survey conducted in the year 1948 by Dr. George Ketona, one of the founders of the Survey Research Centre, University of Michigan and the subsequent surveys conducted by the US Government have enabled the economists to think over the individual financial behavior. Hence it is believed that Personal Finance, as an area of study had laid down its foundation after the work of Dr. George Ketona and personal finance as a branch of study has developed only in the second half of the 20th Century.

In the beginning of 1940s there was a prediction by the US Government that there will be a depression before 1950 and Dr. George Ketona had predicted inflation in America at the end of the decade. His argument was that the Government had made the prediction based on the government and the industrial expenditure only and without considering the spending habits of individuals. Finally what happened was that the prediction of Dr. George Ketona became true and US had an inflation in 1949.

Most of us are, at many times, facing tight money situations. Those who feel such tight money situations are constantly short of money—a situation that they share with the majority of mankind. Our wants always seem to exceed our resources. Given the situation, how can one plan for the future? Future financial security of one's family will not occur as the time passes. If one does not learn how to manage one's own personal finances in adulthood, we may have to face financial crisis after crisis, suffer disappointments, and worry about financial bankruptcy and physical illness. So one should start with earlier planning for future financial security. Making plans to take care of future emergencies and to achieve future goals should be a part of one's financial planning.

David J Ward. *et.al.* (1978) in their book 'Consumer Finance – The Consumer Experience' says, "We need a system that will identify our needs of highest priority and that will use the available funds to satisfy those needs. This process is known as personal financial planning. Personal financial planning enables us to gain the greatest satisfaction from our income. On the other hand, it provides a means of developing a sound financial condition. It means that we will be able to meet our financial obligations without undue stress."

The area of study related to the finance of individuals is dealt under the heading 'Personal Finance'. The broad areas covered by personal finance are income, expenditure, savings and investments of

individuals. According to Gitman, (1978) “Personal financial goals of every individual and holds that they are related to his or her quality of life, consumption, and wealth accumulation. In personal finance, these three are closely inter-related. The presence or absence of certain material items such as a house, car and jewelry, are commonly associated with quality of life. Although many other factors also affect the quality of life, wealth is primarily viewed as a determinant of an individual’s quality of life.” A person’s own house stands first in his wealth accumulation. So it is clear that a house to dwell in will bring different dimensions in the life structure of a person.

1.3 HOUSING - DEFINED

Housing is defined differently by different authorities. Housing is often called “Shelter”, particularly by economists. They also hold the view that apart from food and clothing, a house to dwell in is the third basic need of every human being. It is fundamental for man’s existence and survival.

Shelter is literally what housing provides. It appears that shelter includes shelter from the elements or from enemies.

Development starts with people, their education, organization and discipline. So more important is man. The first and foremost training ground for man’s development of his varied faculties is home. (Francis. C.A.. *et.al.* 1987)

“The United States Census defines a household as a group of persons, or a single individual, occupying a separate dwelling unit. The unit, in turn, is defined as living space which contains cooking and sanitary facilities for the exclusive use of its occupants.” (Wallace F.Smith, 1963).

A ‘housing unit’ is a collection of facilities for the exclusive use of a separate social group called a household, and that the set of facilities

involved in this concept seems to change fairly predictable ways as general living standards rise (Ibid).

“Shelter is provided by some primitive societies in the form of a large roof under which all the male members of the community (there is a separate roof for ladies) may gather. Shelter for soldiers is provided in the form of large barracks, buildings; and for victims of floods or earthquakes shelter often takes the form of school rooms or community halls and the like. During the World War II even the subway stations played an unexpected role as shelter from bombs and fires.” (Smith 1980).

These illustrations clearly shows that ‘housing’ is much more than merely ‘shelter’. The shelter should be used for sleeping, but many other functions are bound up with the traditional definition of a dwelling or house. For example, space for food preparation, kitchen running water, and private sanitary facilities like toilets, laundry, etc; are also bound up with the concept of housing.

Hence we can define a house as a dwelling unit that has living space with adequate privacy, which contains cooking, and sanitary facilities for the exclusive use of its occupants.

Humankind has the unique history of living on all parts of the earth – from areas affected by the harshest to the mildest of climatic conditions. A dwelling unit is not just a home but also a symbol of human assertion, of having made habitable any type of environment.

1.4 SIGNIFICANCE OF THE STUDY

The development of a nation is largely influenced by its rate of savings and capital formation. The grass root level of this capital formation is the individual household. If financial discipline can be achieved in every family the household savings can be stimulated which will enhance the financial welfare of the nation.

Personal Financial Management allows individuals or families to achieve their personal financial goals more easily. An awareness of financial responsibilities will enable the person to avoid mistakes that are often costly. Each financial question faced by the individual can be solved intelligently only if he realizes the importance of the problem, the alternative solutions, and the experience of others exposed to similar situations.

The fall of the joint family system, the growing financial responsibilities of modern families, limited chance of increasing income, growing population and the resultant housing problem, ever increasing cost of construction, financial insecurity of the salaried employees, lack of financial freedom, lack of proper personal financial practice and its awareness, the growing suicide rate on account of financial crisis, etc., make the study a necessity.

House construction is a costly affair these days. Even then, the sentiment to construct “big, beautiful and forever” is not unusual. Every individual has to face many difficulties during the stages of constructing his house. The question, which arises here, is ‘can he justify his investment decision on the basis of other personal financial aspects?’

In fact housing is not only an important basic human need, but a fundamental right of the poor too. Though this is the basic need of all, the landless agricultural workers, scheduled castes and scheduled tribes, village artisans and other economically weaker sections are severely handicapped in having a shelter at affordable cost. Over the years of development effort, the formal construction approach had only limited effect on the housing problem of the poor. (Mathur G.C., 1982).

Among the democratic countries housing shortage is acute in India. In India, the supply of houses or dwelling units has not kept pace with the demands for houses, which have increased, at a fast rate

because of the growth of population. (India 1996—A Comprehensive Annual, 2001).

Another dimension is the conditions of the dwelling units. It may be seen that in some states almost the whole population is staying in kutchha houses whereas in some other states majority are staying in pucca houses. (Census Report, National Housing, 2001).

On the whole constructing a house on the basis of the individual's income and assessing the impact of it on the individual's life is an area which has to be looked into as the old concept of governments solving the shelter problem of the masses no longer exist.

1.5 IMPORTANCE OF THE STUDY

There has never been a detailed attempt to find how the salaried employees land up in debt trap after house construction. An in-depth analysis has been provided at individual level for the cost overrun in house construction. This study is an eye opener in the sense that there has never been a study to ascertain the level of personal financial practices and its impact on house construction. The other novelty of the study is that it clearly questions the popular belief that the low cost house owners have good personal financial practices. Another distinct feature of the study is a comparison between personal financial practices of low cost house owners and non low cost house owners.

1.6 STATEMENT OF THE PROBLEM

A house to dwell in is the third basic need of a human being and probably the largest single transaction a man will make during his lifetime will be the acquisition of a house. The crucial questions here are how big the house should be and how much will be the investment? This individual decision to acquire a house is highly influenced by social pressure and other personal factors and as a result the house becomes a status symbol. The investment usually made in house

construction is beyond the capacity of the individual and he himself totally fails in limiting the cost of construction within the estimated cost. Once the cost of construction is out of his hands he has to borrow more and this leads to unforeseen difficulties. These difficulties may be more intensive or extreme among the salaried employees especially with those who do not have any additional source of income. In this context the researcher believes that it is significant to study the relationship between house construction and personal financial planning of salaried persons.

1.7 OBJECTIVES OF THE STUDY

Objective – I: To assess the various financial difficulties faced by salaried class in the construction of their houses.

Objective – II: To assess the role of personal financial practices of the salaried employees in their house construction.

Objective – III: To assess the overall satisfaction level of the owners of low cost houses and the impact of their personal financial planning.

Objective – IV: To compare personal financial planning of the owners of low cost houses and non low cost house owners.

The sub-objectives in relation to the specified major objectives are:

1. To assess whether there is any association between number of income sources and size of the house constructed.
2. To find whether there is any association between the location and size of the house constructed.
3. To find whether there is any association between size of the rented house and the house constructed.
4. To find the nature of debt after the construction of house.

5. To assess the difference between estimated cost and the total cost of house building.
6. To find whether there is any difference between the estimated cost and actual cost on the basis of different:
 - i. locations
 - ii. income groups
 - iii. sizes of house building.
7. To find out the difficulties faced in loan repayment of the house constructed.
8. To find reasons for the irregularities in repaying of loan.
9. To find out the relationship between monthly income and the financial difficulties faced after house construction.
10. To assess the component-wise cost incurred for house construction.
11. To find whether there is any association between personal financial practices and the size of house constructed.
12. To find whether there is any association between the perception of house as a good investment and personal financial practices.
13. To find whether there is any association between the education level and personal financial practices.
14. To find whether there is any association between the occupational status and personal financial practices.
15. To find whether the differences in estimation and actual cost of house constructed has any association with the personal financial practices or not.

16. To find whether there is any association between the personal financial practices and construction of low cost houses.
17. To find whether there is any association between the personal financial practices and regularity in repaying of housing loan.
18. To find out the relationship of the total loan availed to the personal financial practices.
19. To assess whether the awareness of interest burden is reflected in the personal financial practices or not.
20. To find out the association between the balancing of home budget and personal financial practices.

Based on the above objectives, the following five hypotheses were formulated:

- Hypothesis 1: The house owners are able to construct the houses within the estimated cost.
- Hypothesis 2: There are differences in the *cost* of house construction at various stages among different *locations*
- Hypothesis 3: The house owners who have personal financial planning are financially more comfortable even after the house construction.
- Hypothesis 4: The house owners who constructed low cost houses have good personal financial planning.
- Hypothesis 5: The owners of low cost houses are satisfied with regard to the house they have constructed.

1.8 METHODOLOGY

The present study is both descriptive and analytical. It is descriptive in the sense that it tries to identify various characteristics of the research problem under study and the present situation of the issue. It is analytical in the sense that it analyses and interprets data in order to arrive at conclusions.

1.9 THE UNIVERSE

The universe of the study is limited to the house owners among the salaried class who had constructed their houses in Kerala after the year 2000.

1.10 THE SAMPLE

Among the 14 districts of Kerala the researcher has taken three districts namely Trivandrum, Ernakulam and Calicut as cross sections of the state based on the following:

These three districts are having Municipalities, Panchayaths and in each a Corporation in the year 2000.

They are geographically distributed and are representing the erstwhile Travancore, Kochi and Malabar regions.

The population and number of houses are high in these three districts as per the Population Census 2001.

Sample size of the study is taken as 300 respondents among the non-low cost house owners, 100 each from the three districts. The sample houses are selected in the ratio of 1:2:3 for Corporations, Municipalities and Panchayaths respectively. Another group of sample among the low cost house owners is taken from these districts to evaluate their personal financial practices and the sample size decided is 30, 10 each from three districts.

As already mentioned, samples were selected from Trivandrum, Ernakulam and Calicut districts. Apart from one Corporation in each of these districts samples of Municipalities and Panchayaths were selected in the following manner. From Trivandrum district one out of four Municipalities and three out of 78 Grama Panchayats were selected at random. From Ernakulam district two out of eight Municipalities and four out of 88 Grama Panchayats and from Calicut district, one Municipality out of two and three out of 75 Grama Panchayats were selected at random.

The lists of houses constructed during the period of research were collected from the Corporations, Municipalities and Panchayaths. From the collected lists house owners were randomly selected through draw of lots till the required number of samples of houses owned by salaried class was reached. Fifty house owners from Corporations, 100 house owners from Municipalities and 150 house owners from Panchayaths were included in the sample.

In the second stage 30 low cost house owners from the three districts were randomly selected in the ratio of 1:1:1 from the data provided by 'Costford' and "Nirmithi Kendra".

In both the stages of data collection the schedules used for the purpose of personal financial practices were the same.

1.11 METHOD OF DATA COLLECTION

Primary data were collected by administering the pre-tested structured schedule whereas secondary data were collected from books, periodicals, journals, articles, working papers and unpublished reports and documents. Personal discussions were also held with experts in the field to recheck the reliability of the data collected through schedules.

1.12 PILOT STUDY

A pilot study was conducted among 30 members of the selected sample by interview method. On the basis of pilot study a seminar was conducted wherefrom very meaningful suggestions came up. After the pilot study and the seminar discussions were made with experts and the schedule was finalised.

1.13 TOOLS OF ANALYSIS

The research findings were recorded in frequency distribution tables. Averages and percentages were worked out wherever required. These data were analysed and interpreted by using various statistical tools like chi-square tests, T-tests, ANOVA and Factor Analysis to reach at meaningful conclusions.

1.14 OPERATIONAL DEFINITIONS

Person: Person is used in the sense of the whole family.

Salaried person: The person who is employed somewhere and leads his life with the remuneration received from that single source.

Savings: Savings include investments also. For the purpose of the study savings and investments are taken together.

House: A house is a dwelling unit that has living space with adequate privacy, which contains cooking, and sanitary facilities for the exclusive use of its occupants. All other terms are used in the general sense, as used in common parlance.

1.15 SCOPE AND LIMITATIONS OF THE STUDY

The study is limited to salaried employees of the state of Kerala. Regarding the measurement of personal financial planning the researcher could give only equal weightage to the various aspects (However, the same schedule was used by many experts for data

collection with regard to personal financial planning). The data were collected by means of personal interviews and hence has its limitations. The other limitations were of resources, time and personnel.

1.16 SCHEME OF THE STUDY

The dissertation is organised under six chapters. The first chapter narrates the significance of the study, problems, objectives, methodology, scope, limitations and chapter scheme. The second chapter is fully utilized for the review of relevant literature on housing and personal finance. The next three chapters are devoted to the empirical study undertaken by the researcher with regard to 30 low cost house owners and 300 non low cost house owners. The fifth chapter analyses the level of satisfaction of low cost house owners and the relationship between personal financial practices and low cost house construction. The last chapter presents the major findings, conclusions and recommendations of the study.

Chapter 2

LITERATURE SURVEY

Chapter 2

LITERATURE SURVEY

*Money is honey, my little sunny,
And a rich man's joke is always funny.*

T.E.Brown.

After introducing the subject of the study it is proposed to present a review of related literature in this chapter. The review is presented in two parts—the first part deals with the literature related to housing and the second part, with personal finance.

2.1 HOUSING AND HOUSING FINANCE

2.1.1 Introduction

Humankind has the unique history of living in all parts of the earth – from areas affected by the harshest to the mildest of climatic conditions. A dwelling unit is not just a home but also a symbol of human assertion, of having made habitable any type of environment.

In early societies human beings lived in caves and almost certainly rested in the shade of trees. Gradually, they learnt to use stone and biomass (leaves, grass and natural fibers) to construct houses. Either by design or accident they learnt of the binding properties of mud and therefore used it as plastering material. They also learnt to reinforce mud with fibers. Depending on the environment people used to construct their houses by various materials. Thus ice became a building material in the Polar Regions; stone and timber in temperate zones; mud, brick and thatch in warmer areas; ordinary soil and stone in the African desert and bamboo and timber in tropical regions. Looking back to kind of building materials we used by the majority of the people, the thrust on the use of locally available conditioned materials was clearly

visible. The variety of combinations of basic materials used in buildings varied from bamboo and timber in the North-East to stone, mud and wood in Leh-Ladakh, mud and thatch in the central India, reed and palm thatch in Kerala, laterite block and Mangalore tiles in Konkon coast, stone and thatch in Rajasthan and random rubble stone and brick masonry all over the places in Central and Western India. Each region had a style of construction evolved through ages with use of local material resources.

If a thorough evaluation is made through the ages we can see considerable difference with regard to the construction of houses and the materials used for construction. The earliest evidence of the use of adobe for constructing houses in rectangular forms in the sub-continent dates back to 7000 BC and the building materials used were stone, mud adobe and some hard baked clay brick. With regard to the medieval period relatively fewer examples of dwelling units survive. However, it is quite clear that stone, timber, biomass and brick were the main building materials for the common man (Gupta T.N., 1998).

During the Sultanate regime though the materials used were the same innovative use of materials was visible. Even though the primary materials continued to be the same, the techniques used were a mixture of Islamic and Indian culture. Evidence shows that during the Mughal period that houses of the nobility and wealthy men were made of stone and burnt brick. Throughout the Colonial period the British made indiscriminate use of timber, especially tropical wood such as teak and eventually it appears that a tradition developed in the public works department to use as much wood as possible in construction. With the British came ordinary port land cement, Victorian brick and steel as key building material. Also, with the British came the Bull's trench kiln to produce burnt clay brick. So evidence prompt to conclude that from the ancient period until the end of British Raj, the dominant materials used for house construction have been mud, adobe, stone, baked brick,

timber, lime, mortar, tile, bamboo, grass and leaf. Steel and cement were introduced by the British and that was too expensive for common people. So the very same materials used earlier continue to be the main materials used for construction purposes in this age too (Ibid).

2.1.2 Housing and Economy

Housing is an important activity, which indirectly indicates the level of the standard of living of the people and regulates the general rate of economic growth including employment. Construction of residences, in many countries accounts for nearly a quarter of gross fixed domestic capital formation. It could be the biggest employer of casual, skilled and unskilled labour in rural areas. In addition it provides indirect employment to a large work force in manufacturing industries like bricks, cement, tiles, marbles and granites, asbestos, chemicals, paints and varnishes, glass, iron and steel, fittings and fixtures, metal wares, timber, electrical wires, pipes and tubes. (Louis J., 1977).

Economic problems facing consumers and society result from the fact that resources in any economy are scarce, so it is necessary to choose between the alternative uses to which such resources could be put. Solutions to these problems therefore consist of allocating finite resources to satisfying the potentially infinite wants of society. (Balchin and Roden, 1988).

Wadhwa (1988) has analysed that the need for shelter of a household can be defined in terms of the size of the household, age, structure of the household or stage in the family life cycle and occupation of various members of the household. Need is essentially defined without reference either to income of the household or prices of the commodity.

2.1.3 Housing Finance

One obvious point is that the families with savings need not necessarily be those who need homes. Similarly income and savings are distributed unequally among families. Age is one major factor in the inequality of savings. Families buy houses at one stage of their lives—usually soon after marriage—but they are likely to have accumulated their greatest savings at a much later stage, perhaps when they are at the point of retirement and have no need for the large house in which they raised their children. Geography also makes a difference. The migration of people seeking jobs in the developing parts of the country creates a large demand for housing, while cash savings may well be higher in the older parts of the country, where there is less competition for investment funds for new industries and governmental construction.

A second reason for the existence of institution can be found in the fact that almost one-third of constructions made in 1972 were in apartment houses for families who cannot afford, or do not want to invest their money in real estate that they occupy. Third, many families continue to carry mortgages on their homes even though they dip their savings.

Money invested in factory or farm machinery contributes to the production of tangible wealth. While money invested in housing contributes primarily to the satisfaction of its users. Therefore, the provision of housing capital must be regarded as a form of consumer financing. Its purpose is to enable customers to enjoy the use of a product—housing—long before they have saved up the money needed to pay for its construction. (Starse, 1975).

2.1.4 Housing Studies

A review of urban housing policies in post-independence India reveals that there is a very definite move towards a support policy

framework, while at the same time it is realized that a completely top-down perspective with policies emanating from the Centre is untenable, especially as the local housing context is extremely important. However, both these aspects necessitate an understanding of local housing markets.

Mehta and Mehta are of the opinion that shelter quality is important for middle and upper income strata while the lower income groups seem to trade-off shelter quality and tenure legality against work and social access. The need to be located near places of work goes beyond the obvious need to minimize the costs of travel. The nature of economic opportunities and, therefore, average earnings probably depend on appropriate location. Thus, in terms of stages of residential decision-making, the lower income groups seem to first decide on location and social access and trade-off other attributes against this. As against this, the middle-income strata start with searching for a house, which maximizes size within the bounds of their housing expenditure.

The World Bank study approached the housing situation from the standpoint of effective housing demand. The costs of dwelling units of varying sizes, standards and locations are compared with the ability of low-income groups to pay.

Pama, *et al.* have edited the low-income housing technology and policy following the proceedings of international conference on low income housing technology and policy organised by the Asian Institute of Technology in Bangkok, Thailand in June 1977.

The conference has a specific and important task to bring together the various professionals working in the fields of housing in order to chart an effective strategy to meet their common objectives – decent shelter for everyone. The housing of low-income people requires low-cost, resource conserving appropriate technology coupled with considerable

changes in institutional relationships in society that can enable low-income people to gain access to housing resources such as land, finance, public utilities, and social services.

According to J.Reid, housing consumption tends to increase markedly with normal income, so that the higher the normal income the higher tends to be the housing-income ratio. On the other hand, housing consumption is little affected by short-run fluctuations in income or by change in income related to age of head of consumer units. Hence, to the extent that variation in income represents these, the higher is the income the lower tends to be the housing-income ratio. Thus, in interpreting housing income relations for any set of observations, it is of the utmost importance to consider whether one is observing the effects of difference in normal income or of the difference in income related to age of head and short-run income fluctuations.

The schwabe law of housing that housing-income ratios tend to be lower for the rich than poor, and hence to decline with rise in normal income, have long been accepted and many predictions and policies has been formulated with such expectation. The findings of this monograph imply the opposite tendency. These show higher housing-income ratios for the rich than the poor. In other words, the ratio of housing to income tends to rise with normal income.

In the year 1982, Mathur.G.C; Director, National Building Organisation has conducted an investigating study on the ways of making low cost houses. He analysed the various efforts made by NBO in reducing the cost of house construction. The NBO has made concerted efforts to promote improved use of local materials for reducing cost of house construction. Another point he stressed was the reduction in thickness of walls by using single-brick walls for the construction of four and five storied residential buildings. Apart from saving in the consumption of bricks, cement and steel, such types of load bearing

structures provide greater covered area, resulting in up to 15% economy in cost of construction. He also stressed the use of modular bricks, fly-ash bricks, stone-block masonry, profile brick panel roofing system and lime mortars and plasters for reducing the cost of housing construction to a considerable extent.

According to the observations made by Leela Gulati, male migration from Kerala State to the Middle East has been quite substantial in late nineteen seventies. The major economic impact of this migration at the family level has been the inflow of remittances and consequential improvement in living standards. The most visible impact of this can be seen already in the widespread improvement of housing in Kerala.

2.1.5 Requirements of Good housing

The essential requirements for construction of a good house are summarized by Ghosh. They are as follows:

1. Site: It should be on a good, dry, impervious soil.
2. Aspect: The house should preferably face south or east and should be open at the direction of prevailing wind.
3. Locality: It should be away from burning ghat, cremation ground, trenching ground, industrial houses, etc. School, transport, hospitals and other commonalities should be readily available.
4. A layout plan should be prepared and approved by the local authorities. There should be some vacant land behind the house and on its sides. Height of the house should be according to the width of the street in which it is situated. Every family quarter should have a minimum size of front verandah, or courtyard, one sitting room, one bedroom, backyard kitchen, bathroom and

sanitary privy. The house should be provided with an independent access to the street of adequate width.

5. Building materials such as bricks, cement, earth, wood, iron, etc. are employed.
6. Foundation: For good foundation the earth should be dug up and the bed of the trench is covered with good cement concrete, up to 6 inches behind the footing of the wall. The depth of concrete should at least 18 inches. Upon this bed of concrete, the walls must be erected.
7. Damp roof course: When the foundation reached six inches above the trench a layer of impervious materials like asphalt, sheet of lead, jhama or layer of patent stones, etc. should be spread over the entire wall with wet cement to prevent moisture creeping up the wall.
8. Plinth: The house should have a raised plinth, at least 3 feet from the ground.
9. Walls: It should be according to the standards of Environmental Hygiene Committee (E.H.C.), Government of India. Walls should be of brick (minimum 9 inches size), plastered smooth and coloured white. This type of wall is easy to keep clean and it is unsuitable for harborage of rats or vermin.
10. Floor: The floor of the house should be concrete, which is easy to wash, clean and dry. The floor area available for living room should be not less than 50 sq.ft. per person, with 100 sq.ft. as the optimum.
11. Doors and Windows: The total area of windows in a living room should cover at least 10 per cent of its floor area. The total area

of the windows as specified by E. H. C. of Government of India are as follows:

Types of premises	Window area (as % of floor area)
Living room	10%
Office	20%
Kitchen	20%
Stair cases not less than	10%
Bath room	10%

12. Roofing: It should be at least 10 feet from the floor of the room. The roof should also be provided with adequate gutters and rain pipes to carry off the rainwater.
13. Kitchen: Apart from chimney and windows there should be provision for storage of food and fuel. It should also be provided with water supply, a sink for washing utensils and proper drainage facilities.
14. Drainage, Latrine and Bathing facilities: The house should be provided with good water supply, facilities for bathing and washing with good drain to carry away dirty water from the bathroom and kitchen, with proper connection to public sewer. The latrine must be of an approved sanitary type.
15. Refuse Disposal: The refuse should on no account be thrown away around the house, but it should be kept in a closed container to get rid of flies and rats. This should be periodically emptied in the dustbin located by the local administration.

2.1.6 Housing Status defined

Both the community and the individual household are interested in the housing status of that household. By 'housing status' we mean the whole complex of activities, satisfactions, rights, obligations, conveniences, and expectations surrounding the use of a particular dwelling unit by a particular household (Smith, 1963). There are four major components in the housing status of a household:

1. Structure
2. Accessibility and Utilities.
3. Rights.
4. Neighborhood.

Structure means all the physical attributes of the dwelling itself including the land upon which that dwelling rests. Families do not want, expect or require dwellings that are identical. Accessibility and utilities are tangible services rendered to a particular dwelling by the community or business operating within the community. Accessibility is very much a matter of distance in time, space or expense from points within the urban area, which are useful to the household. Utilities such as the provision for water, electric power, gas sewerage service, telephone connections, etc. must always be provided in some form for each household and the expense of securing them is properly part of the cost of housing.

Rights means the privilege of enjoying a particular segment of real property is established by laws of the community and transferred from one individual or household to another in a manner prescribed by law. The community offers occupants the enjoyment of certain public facilities such as schools, streets, hospitals, fire protection and the right to participate in community government.

The fourth component of housing status is neighborhood. The appearance of neighboring houses, the activities of neighbors and the reputation of the neighborhood within the larger community may add to or detract from the ultimate housing satisfactions to be enjoyed by the occupant household. Neighbors and the broader community affect the usefulness of a particular dwelling in a relatively inflexible way.

2.1.7 Innovations in the Housing Sector

A mobile home is a movable or portable dwelling constructed for year-round living and is towed on its own chassis, connected to utilities, and designed without a permanent foundation. It can consist of one or more units that can be folded, collapsed, or telescoped when towed, and expanded later for additional cubic capacity. It can also consist of two or more units, separately towable but designed to be joined into one integral unit, capable of being again separated into the components for repeated towing. A mobile home is at least 29 feet in length and 10 feet in width. Mobile homes are towed to their sites by trucks whose movements are controlled by state highway regulations, or they are shipped longer distances on railroad flatcars to designated locations and then towed by trucks to the site. (Chapman and Mc Cartney, 2002).

A modular home is a factory fabricated, transportable building unit designed to be incorporated at a building site into a structure to be used for residential purposes. The modules are of standard dimensions designed to meet the requirements of (1) single-family living, (2) efficient production line techniques, and (3) transportation over existing roads and highways. Not only the shell of dwelling modules, but also the mechanical equipment—wiring, plumbing, and interior cabinetry, and perhaps even furniture and furnishings are produced at the factory. Unlike the mobile home, modular housing units are placed on permanent foundations at the site and are required to adhere to building code regulations (A. Davidron, 1979).

A sectional home is two or more units, factory-produced units. These can be compared with large multifunction sections of dwelling units referred to as “modules”. A complete dwelling unit could be assembled from one to several modules; it could be a combination of modules and components, or it could consist of components only. Parts could be combined to achieve a great variety of building types and floor plans.

2.1.8(a) Housing – The World Scene

We live in an age of awareness of global problems. When we speak seriously of food, population or shelter, it is no longer in the context of our nation, community, or even of our continent. As never before, we are aware of interrelationship of nations and people, who find them facing common problems and the need to share solutions. While many aspects of life have improved considerably with the passage of time, some basic questions on existence and well-being have to be answered still. Most important among them is the problems related to shelter. Since the United Nations began to record the extent and quality of development in worldwide family shelter two decades ago, the picture has worsened considerably-particularly in the less developed countries, which make up a large part of the world’s geography.

When housing students are asked to discuss the housing problem their initial suggestions are usually about homelessness, high prices and disrepair. It is not surprising that homelessness should be the first indicator to come to mind because it is the most visible and extreme form of housing problem. High house prices, too, are much discussed in the media and mortgage interest rate changes attract widespread coverage. The problem of disrepair is perhaps less well understood by most people, but they are aware of the problems faced by low-income, highly mortgaged homeowners, and they hear reports of huge backlogs of repairs in the public sector. (Malpass and Murie, 1994).

Katherine Coit's paper 'Housing and Power Relations: A Study of the Impact of Socio-Political culture on Housing Provision in the Third World' analyses the barriers that hinder poor people from obtaining decent housing and the different types of informal power structure which condition the provision of housing in low income neighbourhoods. Using the examples of case studies of Dominica (a small island in the Caribbean), Vietnam and Chennai (India) the author has tried to establish that economic constraints, while a major barrier, are not the only ones the low-income people have to deal with. Rather they face obstacles of political, social and legal nature. To overcome these obstacles they must confront those in command. Hence the power relations often have much greater weight on how people act than is generally recognized. The author has thus concluded that whether it be a government policy, political patronage, clientism, authoritarian control or a caste system aimed at exclusion, those in power hierarchy tend to use their political or social status to reinforce their position and to dominate those at the bottom of the political and economic ladder. The conclusion of this type does not favour the concept of sustainability of urban settlements in a real sense.

Smith asserts that there is probably not a major single city in the world without some form of housing problem. In Los Angeles and Tokyo, in New York and Moscow, in Hong Kong and Paris, in London and Delhi, in Stockholm and Brazilia housing is a serious issue. Everybody knows that housing is a global problem. A large number of people all over the world still do not have adequate housing facility and billions of people dwell in unsafe and unsanitary settlements.

Housing problem is very chronic in developing countries. The advance made by even the developed countries in meeting this basic necessity is far from satisfactory. Neither the capitalist USA that is regarded as the affluent society nor the communist China is free from the housing problem. Housing programme in every part of the world is

far behind the industrial progress. A large percentage of the households in the developing countries cannot afford even the cheapest dwelling available.

It is true that the problem of mismatch between housing needs and supply is more acute in the least developed countries and that they have been the focus of international debates for about half a century. Economic demographic pressures and public policies and institutional failures are reported to be the major reasons for the growth of housing problem in these countries. But now the crisis of housing and the problem of homelessness are seen even in advanced industrialized societies such as the United States. Referring to contemporary homelessness in the US, Marcuse observes that it is 'not the result of general poverty'. Rather it is occurring in one of the most advanced industrial economies of the world, in the midst of unprecedented wealth'. This is linked to the de-industrialisation of America, which involves not only the emergence of joblessness but also a fight between 'life space' and 'capital space'. (Burns *et al.* 1984).

The proportion of outstanding housing loans has considerably grown over the past years as percentage of GDP by the end of 2005 in the developed and emerging economies. The proportion of investment in housing to the Gross Domestic Product (GDP) is 54 per cent in USA, 57 per cent in UK, 40 per cent in the European Union, 17 per cent in Thailand, 34 per cent in Malaysia and 7 per cent in China.

According to a recent study by a U.S. Senate Special Committee on Aging:

Millions of older Americans—whether they live in congested cities or sparsely populated rural areas—now find themselves in a “no-man’s land” with regard to housing. Hundreds of thousands are being driven from their homes because of prohibitive property taxes and maintenance

costs.... Yet, it is becoming increasingly difficult to locate suitable alternative quarters at rents they can afford.

As Oscar Sutermeister observes:

When President Johnson signed the Housing Act of 1968, he stated that the bill promised the elimination of substandard housing in the United States within the next decade. If the old definition of substandard housing is used in attempting to achieve this promise, the results will be a mockery to the ghetto residents of our nation who will still be living with uncounted millions of housing code violations.

According to the 1972 government report entitled Freedom of Choice in Housing:

A web of institutional discrimination exists that reduces the "effective" supply, especially for nonwhite minorities. The institutional web, comprised of many interrelated components, ranges from the services of realtors, mortgage lenders, government regulations, and administrative and political behavior of government officials; to patterns and practices related to employment, schools, transportation, and community services. (Hartman, 1975).

Demand for age-qualified housing designed for adults has been growing and is expected to continue to grow. According to the U.S. Census Bureau, the number of Americans ages 55 or older has increased from 52.2 million (about 21 percent of the total population) in 1990 to 67 million (22.6 percent) in 2005. Based on NAHB's forecast, the 55+ populations will grow to 76.6 million (24.5 percent of the population) in 2010 to 85.6 million (26.3 percent) in 2014.

America's high standard of living is, by and large, equaled today in a growing number of other wealthy developed nations. But when it comes to housing, an essential component of that living standard, the United States still commands first place. By many objective standards

Americans are the best-housed people in the world. Their homes are 20 to 40 percent larger than those of northern Europeans, and about 10 percent larger than those of the Canadians and Australians. These larger homes shelter fewer residents than those of other countries. While the housing stock of Japan and the most prosperous of the European nations allocates, on average, one room per household member, American dwellings offer nearly two. (Peter De Salins).

The United States has somewhat over 2 million publicly owned or managed dwellings, which is a mere 2 percent of the housing stock. In Britain, by contrast, public housing makes up 30 percent of the total number of dwellings, and even in Canada it exceeds 10 percent. Not only is most U.S. housing privately owned, but most of it is owned by its occupants. Since 1950, approximately two-thirds of all U.S. homes have been owned rather than rented, with the current proportion slightly over 64 percent. Much has been written of the alleged inability of young couples today to afford home ownership. Yet the average first-time homebuyer is still under thirty years old.

There are almost 24 million dwellings in the United Kingdom (figures for December 1992). Two out of three households owned their own homes either outright or with a mortgage, representing around 16 million dwellings, which were owner-occupied. This is double the figure for 1961 and over six million more than in 1970 when the Conservatives came to power. At December 1992 the council housing stock was just over five million households (22 per cent of the total stock) with the balance comprising houses rented from housing associations, privately or with a job or business. However, these national figures hide regional variations, most notably in Scotland where just over 51.5 per cent of the total stock is owner-occupied, with the public sector still accounting for 40 per cent of all housing.

The recent publication of an issue of the Journal of the Royal Institute of British Architects with the word CRISIS in red letters the height of its black cover, and the decision of homeless working-class families to take over a vacant block of Council flats in the East End of London, are typical indicators of the simultaneous loss of confidence in the ways we have been building by those who decide and those who have to live with it. (Turner, 1982).

The United Nations General Assembly has proclaimed 1987 as the International Year of Shelter for the Homeless (IYSH) with the objective of (1) improvement in the neighborhoods of some of the poor and disadvantaged; and (2) demonstration of ways and means of improvement in the shelter and neighborhoods of all the poor and disadvantaged by 2000 A.D.

2.1.8(b) Housing in India

Among the democratic countries the housing shortage is, perhaps, the largest in India. In India, the supply of houses or dwelling units has not kept pace with the demand for houses, which has increased, at a fast rate because of the growth of population.

2.1.8.1 Changes in Population Pyramids Over Time in India (1971-2016)

The age-wise and sex-wise population Census figures of 1971, 1981, 1991 and 2001 along with the projections of the same for the years 2011 and 2016 are shown in the form of pyramids (Chart 2.1). In 1971, 41.87% and 42.41% of the male and female population were under the age of 19 years, 52.93 and 52.49 are the percentages related to male and female respectively under the age of 60. 5.2% and 5.1% of the population represented by male and female respectively were in the age above 60 years.

In the year 2001, 34 and 34.5% represented by male and female respectively were below the age of 19 years, 58.9 and 58.4 percentages

“Housing inadequacies in India have both quantitative and qualitative aspects. The problem of housing has tended to worsen over the years due to (1) rapid increase in population, (2) fast rate of urbanization, and (3) proportionately inadequate addition to the housing stock. There is a qualitative difference between problems of urban and rural housing. Whereas the problem of urban area is, by and large, that of congestion, slums and squatter settlements, the rural areas are characterized by the absence of essential services and poor environmental conditions. Any comprehensive solution to India’s housing problem cannot afford to ignore either”. (India 1996, A Comprehensive Annual).

Kiran Sandhu, in her paper “the Future City: Towards a Sustainable Rationale” describes that the contemporary city, a manifestation of civilisations since time immemorial, is now being viewed in more antagonistic terms as the locales for many predicaments that are embedded in the society, including pollution, crime, mental illness, drug abuse, vandalism, truancy and family break-downs. After defining the model sustainable city, the author has discussed the urban scenario in India based on the Indian urban scene, and has suggested that efficient land management is one of the key elements of sustainable development of human settlements together with the need for greater and safer mobility, improvement and upgradation of infrastructure and basic services with appropriate public participation and development of capacity building elements so as to make necessary institutional arrangements with needed technical, financial and managerial expertise.

Housing is a significant engine for growth and development of the economy. The growth in housing and housing finance activities in recent years reflect the buoyant state of the housing finance market in the country. The multiplier effect of investment in housing has grown over the past years as the proportion of outstanding housing as percentage of

GDP increased from 3.4 per cent in 2001 to 7.25 percent by 2005. This is quite indicative of the potential that exists if the proportion of investment in housing in other developed and emerging economies are considered. The proportion of investment in housing to the Gross Domestic Product (GDP) is 54 per cent in USA, 57 per cent in UK, 40 per cent in the European Union, 17 per cent in Thailand, 34 per cent in Malaysia and 7 per cent in China.

The question of challenging unsanitary conditions prevailing in our settlements due to the rapid and massive urbanization of unprecedented proportions. Pathak has elaborated his viewpoint by citing the case of unsanitary conditions of urban settlements in India including defecation in the open by more than 750 million Indians and the indignity of nearly four lakh scavengers who still clean and carry excreta manually from the dry/bucket toilets. Pathak has suggested that the answer to this problem of miserable sanitation conditions lies in the provision of low-cost, cost-effective, non-wasteful latrines for all and emancipation of scavengers.

2.1.8.2 The National Policy

The Government of India, in pursuance of the UN strategy, announced a National Housing and Habitat Policy in 1998. The policy identified 'housing for all' as a priority area and laid emphasis on the needs of the poor (vulnerable groups). The policy document promised to treat housing along with supporting services as a priority sector at par with infrastructure. The central theme of the Habitat Policy was to build a strong public-private partnership for tackling housing and infrastructure problems. The National Housing Policy recognizes that the provision of shelter is important and says: 'it (i) improves the quality of life of the poor, ii) creates conditions for attainment of better health, hygiene and education, iii) stimulates economic activity, (iv) enhances productivity, (v) creates employment opportunities, (vi) motivates

savings, and (vii) promotes social justice' (K.N.Nair and G.Gopikuttan, 2006).

As per the Tenth Plan (2002 to 2007), the total number of houses that would be required cumulatively during the plan period is estimated at 22.44 million dwelling units. It is estimated that the investment required from public sector institutions would be of the order of Rs.4,15,000 crore. This will have to supplement the contribution from private players to tackle the growing demand for housing finance during the Plan period.

In India, pursuance of these policies led to the creation, at the level of the states, of housing boards, and in some cases, slum clearance boards. These boards saw their roles as designers and supervisors of the construction of government housing projects, and the management of housing projects in the form of collection of rent or repayments. The boards were predominantly staffed with engineers who specialized in these roles. Architects, planners and community development staff were either given a minor role or were totally absent. The engineers had a public works background and attitude. They would be equally competent at building roads, bridges or hospitals and thought of a house as merely another building to be constructed.

We have tended to examine housing policies in terms of the success or failure of particular programmes in the way they have provided access to housing for a particular target group, or contributed to a general improvement in the housing situation. But looking at housing from the point of various client groups reveals wide gaps in our housing policies and large numbers of families who are totally excluded. There are many ways of identifying client groups, which can be seen as groups of people with common housing-need characteristics. They can, for example, be identified on the basis of income, occupation or existing housing situation. Looking at the existing housing situation, we may have the following groups represented.

- street sleepers;
- slum hut renters in privately owned slums;
- slum hut (as distinct from land) owners in public and private slums;
- families living in inner-city or suburban rented accommodation sharing services and living in dilapidated houses. (Michael

Over the past few years, the steady growth registered in housing finance disbursements indicates continued buoyancy in the industry. The housing finance disbursements have shown a significant increase during the year 2004-05. The total disbursements of housing finance stood at Rs. 7,6819.00 crores registering an overall growth of 41.47 per cent with that of the previous year. The five year Compounded Annual Growth Rate (CAGR) as on 2004-05 stood at 32.15%

2.1.8.3 Housing Census – A Historical Background

Although, in India no separate Housing Census has ever been undertaken in strict sense of the term, a systematic way of House-numbering and house-listing have been traditionally carried out a few months prior to the population enumeration with the basic purpose of preparation of frame for the latter. Till the 1951 census, each state was free to adopt its own house-list form. Although, there was certain amount of commonality in the items included in the house-list forms canvassed, the lack of uniformity in concepts and definitions by the states made it impossible to attempt building up a national picture on the housing stock. (Census of India 2001).

With the commencement of the five-year plan, the lack of data on the quality and quantity on housing stock was badly felt. In the 1961 census, therefore, for the first time, a uniform house-listing form was adopted all over the country at the time of house numbering. Based on

the data collected in the house-list, a few tables giving the purpose for which census houses are used, the material of the wall and roof, number of rooms occupied by household and ownership status were prepared. For the census houses used as industrial establishment, data on the nature of activity, type of power used and the number of persons employed in each establishment were also collected. In the 1971 census a similar set of questions was canvassed, except that the data on establishment was collected through a separate schedule. The 1981 census saw a major departure from the previous two censuses. Only two questions, one pertaining to the use the census house is put to and the other on the physically handicapped, were included in the house-list form. Information on the amenities were available to the household was collected through a separate household schedule canvassed along with the population enumeration in 1981. This was mainly aimed at producing household level tables on amenities available, cross classified by the characteristics of the household and/or the persons constituting the household. In 1981 at the behest of the Central Statistical Organisation, an enterprise list was also canvassed along with the house-list schedule as part of the economic census. (*Ibid*).

In the 1991 census, the questions on amenities available to households were transferred back to the house-listing schedule and data collected for as many as twenty two items. A question on the type of fuel used for cooking by the households was canvassed for the first time in the 1991 house-list. Availability of toilet facilities to the household was also collected in respect of both rural and urban areas as against only urban areas in 1981. A question on whether the head of household belongs to the Scheduled Caste or the Scheduled Tribes was asked. This information was used to tabulate various housing and amenities data items for the Scheduled Castes and the Scheduled Tribes households separately.

Census of India 2001

The House-numbering and House-listing Operations were carried out between April – June 2000 throughout the country to map out all areas uniformly and list out all the structures, houses and households. The basic purpose of this elementary, yet so demanding and a crucial exercise, was to prepare a frame, unambiguous and without omission or duplication of any area for systematically conducting the population enumeration during February – March 2001. The housing census, thus in some way, was a prelude to the actual population count of the census. The exercise also entailed collection of a wide range of data on housing, amenities and the assets available to the household. The data generated from this operation will not only be of immense use to planners and policy makers in the central and state governments, but also be useful to the administrators and planners at local levels, such as district, sub district and town level. The data sets on the wide range variables being provided for census 2001 based on house-listing operations will greatly benefit a large number of private companies engaged in various spheres of activity especially, in the secondary and tertiary sector. (*Ibid*).

The house-listing operations of census 2001 saw a major shift in approach in that the emphasis this time lay primarily on the quality of living of households rather than just housing. This shift is in line with the U N recommendations on the broad aspects to be covered during a census enquiry. The data on various aspects of quality of living thrown up by the “Housing Census 2001” assumes greater significance as it provides a benchmark being the first census of the 21st century and third millennium.

There are several new features in the house-listing schedule canvassed at the census 2001. Besides improvements made in the format of the house-list schedule, the scope of enquiry at the house listing was considerably expanded with the inclusion of new questions.

The number of items on which information was collected increased from 22 in 1991 to 33 in 2001. House-list schedule was not canvassed for houseless households. Similarly, particulars on amenities and assets available in the institutional households were also not collected while canvassing the house-list. The responses for almost all the questions in the house-list schedule had pre-coded numeric options, which not only helped enumerators to record the response easily, but also facilitated quick data processing. The following new questions were added in the house-list schedule of the census 2001.

- i. The condition of residential or partly residential houses was categorized as good, livable or dilapidated. (This was mainly based on perception of the respondents.)
- ii. A question on the number of married couple(s) living in the household was introduced.
- iii. Information was sought on the number of married couple(s) having independent rooms for sleeping.
- iv. Information on whether wastewater outlet was connected to closed drainage or open drainage or no drainage.
- v. Availability of bathroom within the house.
- vi. Availability of kitchen within the house.
- vii. Availability of certain assets to the households, namely, radio/transistor, television, telephone, bicycle, scooter/motor cycle/ moped, car/jeep/vans.
- viii. Availability of banking services.

It should be noted that the details of profession and income of households are not enquired. The data related to fixed income group households are not compiled elsewhere.

Though housing is a state subject the Union Government is responsible for the formulation of policy with regard to program and approaches for effective implementation for social houses scheme. A

comprehensive Housing and Habitat Policy, 1998 was formulated to address the issues of sustainable developments, infrastructure and for strong public-private partnership for shelter delivery. The objectives of the policy are to create surpluses in housing stock by creating an enabling environment and facilitate construction of two million additional dwelling units each year. The government has identified 'Housing for All' as a priority area and is proposed to facilitate construction of 20 lakh additional units every year with a split up of seven and 13 lakh houses for urban and rural areas respectively. The Working Group of the Planning Commission on Urban Housing for the Tenth Plan (2002-2007) has estimated that 22.44 million dwelling units would be required by end of Tenth Plan by way of addition or up gradation. (India 2007, A Reference Annual).

2.1.9 Housing in Kerala

Kerala, with a population of about 32 million is one of the smallest states in India. But it has certain unique features with respect to the physical quality of life of its people and its settlement pattern. "Unlike the village system of rural habitation in the rest of India, the settlement pattern in Kerala consists of scattered and independent houses made on individual plots all over the habitable areas. Because of its distinctive social, geographic and climatic conditions, the centre of life of an average *malayalee*, from time immemorial has been the house and not the village with people favouring houses built on small garden lands". (Nair and Gopikuttan, 2006).

The 2001 Census data reveals the housing status of India with its various dimensions. With regard to the state of Kerala a better housing status is projected as compared to other state in India. The following tables reveal the housing facilities available in Kerala as on 31st December 2000.

Projected population by sex as on 1st March – 2008 India and Kerala State (000')

	Persons	Males	Females
India	1147677	592245	555432
Kerala	34232	16638	17594

2001 Census Houses in India

Area	Census Houses	Occupied Census Houses
Rural	177537513	168178341
Urban	71558356	65106,336
Total	249095869	233284677

2.1.9.1 Census Houses Occupied in Kerala

According to the Census data published, there are 6595206 occupied houses in Kerala out of which 4942550 are in the rural area and the remaining 1652656 are in urban area. Among the occupied houses in the rural area 3191133 are permanent houses, 1185096 houses are semi-permanent in nature, 563847 houses are temporary and there are 2474 unclassifiable houses. Among the occupied houses in the urban area 1302681 houses are permanent nature, 239279 are semi-permanent 109347 are temporary houses and the remaining 1349 are unclassifiable.(Refer Table 2.1) (NSS Report 488).

2.1.9.2 Census Houses used as Residence and Residence-cum-other use in Kerala

According to the Census figures of the year 2001 there were 6532021 houses, which were using as residence and residence-cum-other use. Out of these households 4900050 are in the rural area and 1631971 are in the urban area. Among households in the rural area,

3165195 are of permanent in nature and 1174642 are semi-permanent type of construction, 557754 are temporary construction and remaining 2459 are unclassifiable. Then among the households in the urban area 1287095 are permanent type of construction, 236040 are semi-permanent type of construction, 107504 are constructed, as temporary type and the remaining 1332 are unclassifiable. (Refer Table 2.2).

2.1.9.3 Households Size and Average Number of Dwelling Rooms in Kerala

In the 2001 published census data the total number of households are classified with household size and the household sizes are classified in 7 categories. They are household size with 1, 2, 3, 4, 5, 6 to 8 and 9 and above. Out of the 6595206 households 4942550 are in the rural area and 1652656 are in the urban area. Among the households in the rural area there are 145100 houses with household size one, 344194 houses with household size two, 638909 houses with household size three, 1439661 houses with household size four and 1056917 houses with household size five. There are 1018676 houses with household size between 6 and 8 and 299093 houses with the maximum household size of 9 and above. .(Refer Table 2.3).

Among the houses in the urban area there are 42002 houses with household size one, 113457 houses with household size two, 225298 houses with household size 3, 495126 houses with household size 4 and 332967 houses with household size 5. There are 3552157 houses with household size between 6 and 8 and 121649 houses with the maximum household size 9 and above. The median number of houses is shown as 3. (Refer Table 2.3). (Census of India 2001).

2.1.9.4 Households with Married Couples and Independent Rooms

With regard to the 6595206 houses, another classification is made in the published census data on the basis of number of married couples per household and there are 6 categories. Category 1 is houses without

married couple, the other categories are houses with one married couple, two married couples, three married couples, four married couples and married couples five and above.

Among the households in the rural area 642282 houses have married couple, 3508993 houses have one married couple, 64278 houses with two married couples, 122513 houses with three married couples, 21901 houses with four married couples and 4483 houses with five and above married couples. (Refer Table 2.4).

Among the households in the urban area 193219 houses have no married couples, 1171099 houses have one married couple each, 223727 houses have two married couples, 51450 houses with three married couples, 10602 houses with four married couples and the remaining 2559 houses with five and above married couples. (Refer Table 2.4).

Out of the total households 6422118 couples have independent sleeping rooms. (Refer Table 2.4).

2.1.9.5 Households by Availability of Bathroom and Latrine

According to the published census data the households in Kerala are classified based on the availability of toilet facility and the classifications are number of houses with bathroom facility within the house, houses with pit type latrine, houses with closet type latrine, houses other type of latrines and houses without latrine. Out of 10691920 households classified here, 4096714 houses having bathrooms within the house and out of which 2792551 are in the rural area and 1304163 are in the urban area. Out of the total households in this category 815221 houses are having pit type latrine and among them 631664 houses are in the rural area 183557 are in the urban area. There are 4299445 houses with water closet type latrine and out of which 3063983 are in the rural area and 1235462 are in the urban area.

There are 426102 houses with other type of latrine out of which 324374 are in the rural area and 101728 are in the urban area. There are 1054438 houses without latrine facility and out of which 922529 are in the rural area and 131909 are in the urban area. (Refer Table 2.5).

2.1.9.6 Households by Availability of Electricity and Latrine

The total 6595206 households in Kerala are classified on the basis of availability of electricity and latrine and as such there are four classifications. They are households with electricity and latrine available households with electricity but no latrine, households with latrine but no electricity and households without latrine and electricity. There are 4302040 houses with which electricity and latrine are available and out of which 2961945 are in the rural area and 1340095 are in the urban area. There are 330682 houses with which electricity is available but no latrine and among them 276954 are in the rural area and 53728 are in the urban area. There are 1238728 houses are having latrine facility but without electricity and out of which 1058076 are in the rural area and the remaining 180652 are in the urban area. There are 723756 houses without latrine and electricity and among them 645575 are in the rural area and 78181 are in the urban area. (Refer Table 2.6).

2.1.10 Sources of Finance

As in the case of all market phenomena, this high investment may be looked at from the supply and demand points of view. The sources of demand possibly don't lie purely in economic factors, but also in social, cultural, institutional and political factors. Thus any enquiry into the supply factors should seek to trace the sources of funds for investment in housing.

During the entire period of colonial rule and till the early 1970s when radical changes started taking place, living conditions of the poor in Kerala had been steeped in traditional habits, attitudes and outlook.

Exposure to the outside world and income windfalls wrought dramatic changes for a large number of the people and their desires, aspirations and preference patterns underwent a revolution. Their first priority in this new scenario was to own houses which would get them social and psychological prestige and recognition.

Finance for meeting the rising demand for housing came from a variety of sources: remittances from abroad, surplus income generated in the plantation sector, windfalls from real estate business and loans from the co-operative sector. Massive inflows of remittances from abroad and sustained increases in the production and prices of plantation crops like rubber, tea and cardamom happened at more or less the same time. Such increases benefited both the small holders as well as the big planters. These 'new rich' households accorded top priority to their housing needs. It is likely that the relative importance of these different sources varied among the three geographical regions of the State. While remittances from abroad must have constituted a major source of demand in the Lowland regions, surplus income generated amongst small holders of plantations was probably the main source in the Highland regions.

2.1.10.1 Remittances from Abroad

Incidence of immigration to the Gulf countries (which began in a big way in 1973) was the highest from the Lowland regions. Several micro-level studies point to the predominance of investment made by migrant households in land, house construction and in renovation or replacement of residential houses (Gopikuttan, 1988).

2.1.10.2 Surplus from the Plantation Sector

The period of inflow of remittances from the Middle East into centers of migration coincided with the period during which the production and prices of plantation crops like rubber, tea and cardamom

shot up. Such increases benefited small holders of plantations in the Highland regions as much as the big planters. The surplus income generated as a result of an unprecedented increase in the prices and output of plantation crops might have enabled the small holders to spend a part of this surplus on construction and renovation of residential houses.

2.1.10.3 Windfall income from the Land Market

In the meantime prices of land, especially house plots, too had increased dramatically. For owners of larger holdings on the urban fringes, these high prices were a windfall. Households unwilling to invest in risky ventures found it convenient to invest their windfalls in the construction of new houses.

2.1.10.4 Loan Finance

During the late 1970s, the government, the co-operative sector and several institutional agencies entered in the housing sector with liberal loan schemes. It is estimated that about 30 per cent of the expenditure on housing during 1980-81 was financed by borrowed funds. Loan schemes enabled a large number of fixed income earners to capitalize on their future savings to raise the funds required for investing in housing.

2.1.10.5. Disposal of Inherited Wealth

The social pressure to own a permanent dwelling became so intense that it induced middle-income groups to even sell their inherited wealth to raise investible funds for housing. Field studies in 1987 indicated that since 1975 about 59 per cent of the households in the rural and 35 per cent in the urban areas had disposed of their inherited wealth (including land and jewellery) for housing investments. The amount so obtained either supplemented other sources or formed the only sources of housing investment.

2.1.10.6 Fear of Inflation

Owing to supply constraints, high and rising levels of construction activities pushed up prices of building materials and construction labour. Expecting the rise in costs of construction to continue, potential housing consumers thought of constructing houses as quickly as possible with whatever resources they could mobilize. In 1987, about 90 per cent of the households said that it was the fear of inflation escalating the cost of construction that made them decide to construct their houses as early as quickly as possible.

2.1.10.7 Relative Shares of Sources of Funds

The sources of finance can broadly be classified into two: (i) Savings, inherited wealth, grants and gifts and (ii) Loans from government, financial institutions, co-operatives and other such sources. During 1980-81, remittances from abroad, which is a part of the savings of NRIs, constituted about one-third of the gross housing investment. The share of loan finance was about 30 per cent.

NSS data for 1992 show that the relative shares of own funds and borrowed funds in rural areas remained almost unchanged. The sources of funds for construction of houses in rural areas at the all India level and in Kerala are given in the following table.

**Sources of funds for house construction in rural areas:
All India and Kerala**

S.No.	Sources of Funds	Percentage for rural areas	
		All India	Kerala
1	Own sources	75.1	70.5
2.	Borrowed funds	24.9	29.5
	2.1 from non-financial institutions	2.1	4.1
	2.2 from financial institutions	12.5	15.2
	2.3 from individuals	10.3	10.2
	Total	100.0	100.0

As the table shows, own sources of finance constituted about three-fourths of the total expenditure on house construction all over India. This proportion was slightly lower for rural Kerala. The share of loans from financial and non-financial institutions and individuals respectively accounted for 25 per cent and 30 per cent for rural households at the all India level and in Kerala. (NSS, Report No.488, 2005).

Further, the housing scenario in the State is dominated by market forces. Quality building materials and international structural designs are available at competitive rates and relatively low-cost housing finance is available from commercial banks and housing finance institutions to all those who can provide collateral security. The report of the State level Bankers Committee shows that housing credit went up by nearly 300 per cent over the two-and-a half year period ending December 2003.

NGOs and voluntary agencies, which were expected to provide impetus to a voluntary bond of solidarity among those who participate in altruistic actions, seem to have failed in providing self-help and mutual help solutions to the housing problem of the poor.

“Every two out of five households in India live in extremely poor quality houses. However, the housing situation is not same across the states in the country. Kerala, compared to the rest of the states have achieved tremendous progress in this respect. State intervention in the housing sector, as part of its support and security strategy to help the poor, with several novel programmes and schemes has earned laurels. They are often projected as models to be emulated in the third world countries.” (G.Gopikuttan, 2006).

In terms of topographical characteristics, Kerala can be divided into three regions: lowland, highland and midland. Housing conditions in terms of material used, design of buildings, techniques of constructions and the skill composition of the construction workers

employed do not seem to be markedly different either within or across regions. Further, there is no much difference between rural and urban housing conditions.

When it comes to social sector development, Kerala not only occupies a position far superior to that of the other states in India, but also as compared to developing countries in general. The level of human development in the state is comparable to that of middle-income countries of the world. Besides Kerala has achieved high degree of equality in the distribution of human development across gender, space and social groups. Though scholars are apprehensive about the sustainability of the consistently high level of social development through public action and democratization of civil society, the state's accomplishments show that the well being of the people could augmented and social, political and cultural conditions improved even at low levels of income provided there exists appropriate public action.

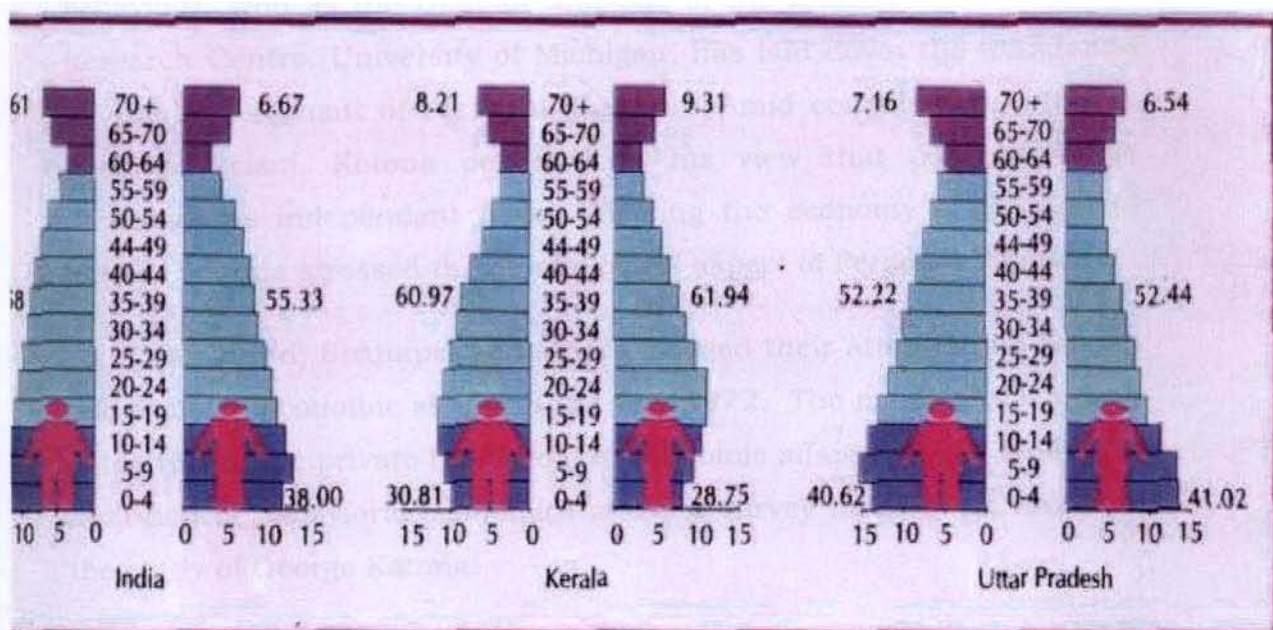
Measured in the terms of the mismatch between households and the number of occupied residential houses, the housing problem does not appear to be too serious in Kerala. Compared to the national situation, the proportion of houses with good quality floors, walls and roof materials and the proportion of big houses reckoned in terms of the number of rooms are far higher in Kerala. However, 8.2% of the households reportedly lived in dilapidated houses while the corresponding proportion at the all India level was only 5.6% in 2001. This indicates that the housing problem of a minority of very poor households in Kerala remains unsolved. Existing structures, institutions, building technology, mode and relations of building materials production do not seem to have helped these households to improve their housing conditions. (*Ibid*).

This housing scenario in the State raises several questions. Why do the benefits of unprecedented growth in private and public housing investment bypass those living on the margins? What are the determinants of technology, mode of production and labour process in

the building construction sector? What would be the effect of State intervention in the housing sector in specific situations in which expectations and housing aspirations of the potential beneficiaries are high? What are the factors and forces that limit the participation of women in housing? What kind of technology options are available to the really weak and needy to solve their housing problem? To what extent have the rehabilitation measures for slum residents succeeded in meeting their genuine needs? What would happen to the conventional social security set up of traditional craftsmen engaged in the construction?

2.1.11 Comparison of the population pyramids of Kerala and Uttar Pradesh

Chart 2.2



Population pyramid of Kerala resembles that of developed countries while that of UP resembles the developing countries

2.2. PERSONAL FINANCE

Even though personal finance is comparatively of recent origin, a number of studies were made in the International, National and State levels, relating to the various aspects of it. A review of the existing literature is given below:

2.2.1 Pioneers in the field

Engel who propounded his law in the year 1885 made one of the earliest studies, in the related field. According to him, the smaller the family income, the greater will be the proportion of income spent on food. He stated that as consumption increases, the budget share of food declines, except among the very poor. The Engel Curve shows that the proportion of expenditure devoted to food decreases as the standard of living of the household increases.

Katona (1964) can be regarded as the father of consumer behaviour, who as the Director and one of the founders of the Survey Research Centre, University of Michigan, has laid down the foundation for the development of Personal Finance. Amid considerable criticism and skepticism, Katona persisted in his view that consumers are important as independent factor affecting the economy of the United States. Katona stressed the psychological aspect of Personal Finance.

Burkhard, Strumpel and others focused their attention on human behaviour in economic affairs in the year 1972. The major problem area is the role of the private household in economic affairs. In the study, the evolution of behavioral economics and the survey method are linked to the study of George Katona.

Jagdish N.Sheth developed a theory of Family Buying Decisions in the year 1974. After reviewing the existing knowledge on family decision

making, he attempted to integrate the findings and thoughts that seem to be intimately related to buying decisions of the family.

2.2.2 Consumer Behaviour

Fitzimmons (1961) in his study has pointed out that the purpose of consumer buying is to obtain goods that will most completely care for the greatest number of the most important wants recognized by an individual or a household group.

Wheeler through his study on the behavioural aspects of the consumers guides us as how not to be a “Conned-consumer” and tells us how to protect our money and use it to make wise purchases. He lays down a track, which will make people wealthy by enabling them to buy the right goods, to spend and save intelligently and keep from being conned into consuming foolishly. (*Ibid*).

De Salvo focused on the major rights of the consumers like the right to safety, the right to consumer education etc. The study tells us how to spend our money effectively so that we may get 10% - 20% more for every dollar we earn by smart shopping and buying.

Manoj Kumar Panda framed a price endogenous plan model for India incorporating normative minimum consumption targets in the year 1988. He attempted to incorporate the normative consumption targets into a plan model for India. It postulates consumer behaviour to be influenced by income and prices through a total demand system and considers the price structure and the consumption norms within an integrated frame. On the production side, it assumes perfectly elastic supply at given mark-up rate from base year.

Edward R. Willet of North Eastern University, has pointed out that each financial question faced by the individual can be solved intelligently only if he realizes the importance of the problem, the alternative solutions, and the experiences of others exposed to similar situations.

Careful financial planning and an intelligent approach to financial problems can contribute greatly to a happy and satisfying life.

Taylor W.J. and Watling T.F. have analysed the income, saving and expenditure on selected items of consumption, both durable and non-durable, of the urban and rural household sectors in India for the year 1967-68, with special reference to the group of households having an annual income between Rs.5000 and Rs.15000.

Robert R.Rosenberg and Ralph V.Naples focused on personal income, consumer purchases, automobile ownership, housing costs, personal insurance and investments in the year 1976.

Robert H.Burton and George J.Petrello have found that:

1. From birth until death most decisions and consequent behaviours of individuals are anchored to the family.
2. The individual differences in motives, preferences and even values among family members have effects on the process of family decision-making.
3. There is greater autonomy of the wife among the upper and lower social classes and less in the middle class.
4. One family's life style may be quite distinct and different from that of another family.
5. All family buying decisions can be classified as autonomous (by one member) or joint (by some members or all of the family)
6. Knowledge can reduce cost.

Lawrence J.Gitman of the University of Tulsa focused on quality of life, consumption and wealth accumulation. According to him personal financial management is for better decisions, proper handling of finance and it satisfies personal financial goals.

Charles P. Edmonds III of Auburn University Alabama stressed on the essentials of personal finance in the year 1979. The purpose of the study is to show how everyone is a small part of a giant economic system. He pointed out the relevance of personal budgets, sources of credit, insurance, home ownership, taxation, investments and even the changing role of women.

The study of Ronald C. Gable on investments and financial planning revealed that each individual must be responsible for his or her financial decision-making. Only knowledgeable active decision makers will achieve financial security. All planning is purposeful, and financial planning can be done only by those who set goals and actively strive to implement those goals.

Paulena Nickell and Jean Muir Dorsey offered a fresh approach towards management in family living. They concentrated on the fundamental concepts in management, management of family resources and the contribution of management in the democratic home to the development of socially adjusted individuals.

Baruah M. Pathak and others conducted an investigation on the money management practices of families from a low income group in Jorhat sub-division in the year 1988. The major findings revealed that ignorance and lack of appreciation on part of home makers regarding the advantages of budgeting and account keeping act as hindrance to realizing how the family income is being spent. Financial insecurity or old age insecurity is a deep-rooted feeling in the minds of the sample households and it becomes the motivating factor of their saving programme.

Cunningham, B.V. in his study on family behaviour in the year 1936, has stated that the best kind of budget, if it is not acceptable to all members of a family group, might do more personal harm than one more carelessly planned.

Saul Bernstein in his study, “Self-determination: King or Citizen In the Realm of Values”, has stated that there is a wide variety of goals from which an individual or family may select.

2.2.3 Definitions of Personal Finance

As there is no precise and accepted definition of Personal finance, it may be described as the Science of earning, spending, saving and investing of money based on objectives and protecting the wealth of the family with a view to generate adequate return, achieve financial security and there by ensure welfare and happiness of the family.

Thus on the one side personal finance demands, a thorough evaluation of the available resources of the family by all means and on the other side the most beneficial utilization and protection of the same to maximize the earning capacity and welfare of the family based on personal financial objectives.

2.2.4 Objectives of personal finance

The ultimate objective of personal finance is to enable the households to lead a happy life after attaining financial security and financial freedom of the family. The main objective can be achieved through the following subsidiary objectives.

1. to help the household in the establishment of personal financial objectives and goals
2. to facilitate the preparation and adoption of a family budget
3. to enable individuals or families to determine or assess personal income and suggest guidelines to improve their income potential
4. to facilitate the households in the preparation of financial statements and records

5. to give necessary guidance for the better utilization of family resources
6. to point out various ways of reducing the cost of living
7. to provide necessary guidance for an effective savings plan
8. to give proper direction to the investors
9. to suggest ways and means of protecting individuals and their assets
10. to guide the family in managing their liabilities
11. to help the family in tax planning
12. to provide guidelines for retirement and estate planning

2.2.5 Importance of Personal Finance

Personal finance offers new information that will guide a person through possible problem areas and will enable him to budget the expenditure of his money wisely. Personal finance enables person in taking wise decisions in managing his finance. It helps to identify various alternatives in handling money. Insight into the principles and practices of contemporary personal financial management will allow a person to make better decisions relating to education, career, family status, life style and finance.

When a person regularly reviews the actual progress of his financial development and compares it with his schedule of expectations, he benefits in two different ways. First, motivational pressure is exerted on him. Second, personal financial planning tends to remove the anxiety, that results from either erratic or non financial management, and leads him to a state of financial freedom.

If people do not learn how to manage their personal finances early in adulthood, many of them will find themselves encountering financial crisis after crisis, suffering disappointments, and worrying to the point that they can become financially bankrupt and physically ill and may even lead to early death or suicide.

2.2.6 Personal finance management

Personal finance management helps to achieve the personal finance goals more easily. It is defined as

The systematic method of choosing the best and the most practical source of income and the most effective utilization of the income and wealth by means of proper planning, organizing, directing and controlling, based on the principles of Management By Objectives.

Personal finance management involves the application of the principle of management in family finance. It covers financial planning of every family, organization of family financial matters, proper direction of family resources and control by means of a proper family budget.

2.2.7 Scope of Personal finance

Personal finance has a very wide scope. It covers the entire spectrum of a family' finance. It includes:

1. Personal financial planning
2. Family budgets and records
3. Personal income
4. Personal expenditure
5. Personal savings and investments
6. Personal and property insurance
7. Personal liabilities

8. Personal taxes

9. Retirement and estate planning

2.2.8 Personal Financial Planning

The ultimate goal of financial planning is to secure one's financial security. In order to reach the family's financial potential and maintain the desired quality of life, one must initiate a positive personal financial management programme. This will require of him the preparation of plans and budgets that can act as navigational aids in plotting the course towards achievement of both the family's short run and long run financial goals.

"Building a sound financial plan is conceptually similar to erecting a building", according to Ronald C.Gable. In both building construction and financial endeavors, a sure foundation and strong framework support the finished structure and help it to last. Comprehensive planning creates the foundation and superstructure for success.

2.2.81 A Life Long Process

The family's financial plan includes general plans and expectations through the family's life cycle for raising a family, educating the children, and obtaining income through choice of occupation and number of earners. It also involves plans for the family's way of living, saving and investments etc. The financial plan is in general terms and for the long run period including changes to be made through the life cycle.

2.2.8.2 Establishing Financial Goals

The establishment of financial goals is the first step in the overall financial planning process. These goals once set, provide direction for the financial planning process. After the current financial position is evaluated by preparing personal financial statements, both long run goals and short run goals must be established.

In the words of Lawrence J. Gitman,

Money is not necessarily the key to happiness, but its presence in amounts adequate for the fulfillment of financial goals allows people to devote more of their energy to the achievement of life goals and personal happiness. Since most people are not favoured with unlimited funds throughout their life times, their management of personal finances becomes a job of planning how to spend, save and invest income in order to achieve as many life time goals as possible. Although without financial planning it may be possible to achieve certain financial goals, the presence of financial plans should improve goal achievement possibilities.

2.2.8.3 Long Run financial Goals

Every family should specify its long term objectives. They should capture the hopes, aspirations and expectations of all members of the family. Long-run goals must be flexible enough to allow for changes as well as strong enough to shape short-run financial decisions.

2.2.8.4 Short Run Financial Goals

Short-run financial goals for each year should be consistent with the achievement of the long-run goals. These short-run goals thus become the key input into the budget a tool used to plan for short-term income and expenditure. The immediate goals of individual family members, the family's expected income and expenditure for the year, and the family's long-term financial goals must all be taken into account when these short-run goals are defined. Short term planning should also include the establishment of an emergency fund containing three to six months of income which serves as a safety valve that can be used in case of financial emergencies.

2.2.8.5 Controlling the Plan in Action

Control in financial planning can be of two types

1. checking to see how well the plan is progressing and
2. making adjustments wherever necessary.

According to Sid Mitra, "All of us want to be happy. We want our families to enjoy the good things of life now. But we also would like to be able to assure them they will be taken care of in the future. Future financial security of the family does not just happen. One must plan for this.

Although conscientious planning of one's finances may involve short term sacrifices, it should allow him to achieve his long run goals and so provide him with higher levels of overall satisfaction.

2.2.8.6 Family Budgets

Once a person has established the short-term goals, he can prepare a budget for the coming year in consistent with these goals. Money is a limited resource for most people, even those whom we might consider rich have to put their money to the best use. The best use of money means getting as much 'want satisfaction' as is possible from the income that one earns. Developing a system of budgeting helps to analyse what one's priorities are, and helps to show families whether they are, in fact, spending for those that are most important to the members.

2.2.8.6.1 Meaning

The budget is a short term financial planning device designed to allow a person to achieve his short-term financial goals. In simplest terms, it is a written plan in which one recognizes all regular periodic income and goes about determining how that income will be spent. It

contains estimates of income and expenses, including savings and investments, for the coming year. It is necessary to record income and expenditure in order to review whether the plan is working.

2.2.8.6.2 Qualities of a Good Budget

A good budget helps the family maximize satisfaction from use of income through careful consideration of various alternatives. If one spends too much in one category, another category must suffer. The budget must be tailored to the individual family's values, needs and resources. It gives appropriate consideration to the family's short-term and long-term financial goals. A good budget helps achieve financial peace of mind by matching expenditure to receipts. It must start with realistic income expectations. The budget includes reasonably definite and practical plans for spending, saving and sharing. At the same time the budget provides some flexibility for unexpected expenses. A good budget increases family co-operation and reduces friction in regard to money.

2.2.8.6.3 Developing a budget

The budget preparation process has three stages, viz.,

Estimating income

Estimating expenses, and

Balancing the two

2.2.8.6.4 Estimating Income

The first step in constructing the budget is to estimate income for the next period, probably a year, from all sources and earners. Since bills are most commonly rendered and paid monthly, it is best to estimate income as well as expenses using monthly time intervals. Any

item expected to be received for which repayment is required is not considered income.

2.2.8.6.5 Assured Versus Possible Income

In order not to be either too optimistic or too pessimistic, it is helpful to list income under two headings: assured income and possible income. When they are totaled separately, the family can arrange their plans so that necessities are taken care of out of assured income and the 'nice but not necessary' items can be obtained if other sources materializes.

In order to ascertain net income available for family financial planning, list deductions from income that are required of a worker and citizen. They are unavoidable expenses so that the sums are not available for family financial planning.

2.2.8.6.6 Estimating expenses

The second stage of the budgeting process involves estimating the expenditures for the coming year using the actual expenditures from previous years along with the stated short-run financial goals. Families without past expenditure data must use a "needs approach" to develop spending forecasts. List the commodities and services needed and wanted by family members throughout the proposed budget period. Discussions of estimated expenditures with friends and relatives should help in developing realistic values for expenses based on current price levels and then to increase these estimates by a percentage that reflects the anticipated rate of inflation.

2.2.8.6.7 Finalising the Budget

Once income and expense estimates have been made, the budget can be finalized. This involves comparing the projected income and projected expenses or both on an annual and a month to-month basis.

A balanced budget results when the total income for the year equals the total expenses for the year. In order to balance the annual budget, it may be necessary to eliminate certain low -priority goals or increase income.

2.2.8.6.8 Cut Lower Priority Expense Items

Low priority expenses are those items associated with the short-run financial goals believed to be least important. For thi purpose, expenses can be divided into two groups inflexible and flexible. Only flexible expenses can be cut from the budget in order to make it balance.

2.2.8.6.9 Increase income

The traditional method for increasing income of a family has been for the wife to obtain a job. But since a number of wives already work, this is becoming less of an alternative. The presence of small children may also make it unprofitable for a wife to hold a full-time job. Other alternatives would include overtime work, a part-time job or finding a Saturday job.

2.2.8.6.10 Format

The budget comes in many shapes and sizes because no one format will fit the needs of everyone. A model form is given. After getting an idea of what a budget is and what it should do, every person can develop his own format. The preparation of a budget requires careful consideration of possible time, price changes, stability of income, emergency needs and savings.

2.2.9 Government of India Studies

In pursuance of the recommendations of the Rau Court of Enquiry, family budget enquiries were conducted for the first time on uniform lines in India during 1944-46 by the government of India with a view to construct and maintain reliable consumer price index numbers for different centres. Later on, family living surveys were conducted

during 1958-59 in fifty important industrial centres and during 1970-71 in 60 important centres based on the latest scientific techniques.

With the passage of time, the consumption pattern of the working class and undergone changes and it was felt that the existing consumer price index numbers, on the base 1960 = 100., should be revised on the basis of new weighting diagram. It was therefore, decided to conduct income and expenditure survey in 76 important industrial centres during 1981-82. This task was undertaken by the Labour Bureau, Ministry of labour in accordance with the recommendations of the Technical Advisory Committee on Statistics of prices and cost of living set up by the Government and the guidelines laid down by I.L.O.

A working class family formed the basic unit of the survey and has been defined as one which is situated within the Centre, which has at least one member working as manual worker in an establishment in any of the seven sectors of employment, namely registered factories, mines, plantations, ports and docks, electricity generating and distributing establishments, public sector transport undertakings and railways, and which derives 50 per cent or more of its income from any manual work.

As per the All India Consumer Expenditure Survey of NCAER, in the year 1966, the national income of the country increased by over 50% at 48-49 pries and the per capita income by about 17% over the period 1951-52 to 1962-63. Since the ultimate object of planning is to raise the standard of living of the people, one would be interested to know the possible changes that might occur in the levels and in the pattern of household expense on goods and services of the different groups of population.

Another survey was conducted by the NCAER to compare and contrast the pattern of consumer expenditure and income prevailing in areas, which have already been touched by the development process. Consumer behaviour is explained by relating consumer expenditure to

income, education, family size, and developmental status of the family's place of residence.

Haridasan, V. has analysed the family budget and social security benefits of rubber plantation workers in India in the year 1967.

Krishnankutty, P.N. and Haridasan, V. had conducted another study on the family budget of rubber plantation workers in Kozhikode district in the year 1976. The Board initiated a sample survey of family budget of rubber plantation workers in order to have basic information on the existing working and living conditions of rubber plantation labourers. The family was taken as the basic unit of the survey.

2.2.10 Income and Expenditure

Prais, S.J. and Houthakker, H.S., have analysed the expenditure pattern of households in the year 1971. Further study of family budgets showed the variations in income and household size on the expenditure pattern of the household. The prices paid by a household for physically similar items of expenditure also vary systematically with the standard of living of the household.

Operations Research Group, Baroda, conducted research on a long-range perspective to analyse the consumer behaviour by following NSS data in the year 1975 and concluded that

1. The material welfare of the people is most directly reflected in their consumption basket.
2. the rural and urban population sectors exhibit two distinct patterns of consumption
3. not only does the size of the consumption basket grow over time but its composition changes

4. elasticity of demand for non-food items increases sharply as one moves from the pessimistic to the more optimistic scenarios.

Batty I.Z. Director General, NCAER, New Delhi, investigated on rise in consumption levels in India and consumerism in the year 1989. He analysed the Engle's Curve and stated that a low wealth-income ratio tends to reduce current consumption which might increase savings ratio. The aspirations with regard to children's education as well as other future expenditure are rising, current consumption will tend to decrease further.

Chandola, L.M. undertook a study of the consumption pattern of different income groups of the diesel Locomotive works Varanasi, in the year 1984. It was an outcome of the analysis of consumer expenditure based on data on family expenditure collected from the employees of the diesel Locomotive works, Varanasi.

Sunny K.P. has observed the consumption pattern in Kerala in the year 1988 with the help of NSS data. He found that there had not been much relationship between per capita income and per capita consumption expenditure in Kerala unlike the rest of India basis. Consumption expenditure during the NSS 22nd and 38th round showed that the proportion of expenditure on food items have decreased while that on non-food items increased. In 1983, more than 40% of the per capita monthly expenditure share was for non-food items including luxurious items.

2.2.11 Savings and Investments

Enoch Powell states that the meaning of consumption or savings depends upon the period of time involved. The first point, which we notice about consumption and saving, is that the distinction between them can be made only in relation to a specific period of time. (Enoch Powell 1960).

Taylor W.J. and Watling T.F. have concentrated on the personal financial aspects of the managers in the year 1972. The study covers personal budgeting, the savings media, insurance, investment schemes etc. The objective of the study was to estimate and analyse income saving and expenditure on selected items of consumption, both durable and non-durable, of the urban and rural household sectors in India for the year 1967-68, with special reference to the group of household having an annual income between Rs.5000 to 15000.

The NCAER has conducted an all India household survey of income, saving and consumer expenditure with special reference to middle class households in the year 1972. A comparative study of primary data of higher income group and secondary data of NSS average figures of 10 years of lower and higher income groups were made.

The study reveals that major part of urban saving was financial saving in P.F., LIC and Banks. Major part of rural saving was invested for improving asset in agriculture. Saving for building or purchasing houses and for improving them came next both in rural and urban area. There is a desire among the rural households for accumulation of gold and ornaments. The marginal propensity to save was 35% for entire household sector it was 34% in rural and 39% in urban sectors. Net saving expressed as percentage of disposable income was 7.9%. It was 6.9% in rural and 10.6% in urban sectors.

This indicates that, other things remaining constant, it is possible to realize even a higher rate of saving with increasing income. Middle class households in the country saved 20% of their income; the MPS was 34%. Rural middle class households saved at some what higher portion of income than the urban middle class. However the MPS of the urban middle class was much higher than that of rural.

Households up to an income level of Rs.2000 per annum, not only did not contribute to the volume of net saving but they did not save. On

the other hand, the top income households with annual incomes rs.15000 and above though around 1% of the households in the country accounted for roughly 1/3 of the total volume of net saving in the household sector. The propensity to save showed a clear tendency to rise with the level of education.

Food accounts for 50% of disposable income. For the country as a whole the expenditure on Consumer durables accounted for 1.55 of the disposable income. The proportion of households, which owned consumer durable, increases with income.

Donald E.Fisher of University of Connecticut and Jordan, Ronald, J of University of Bridgport have conducted a study on security analysis and portfolio management in the year1979. They considered investing as a rational decision making process in which the investor attempts to select a package or portfolio of securities that meets a pre-determined set of goals. These investor goals are expressed in terms of return on investment and the degree of uncertainty about the return or risk.

The Asian Development Bank has conducted a study on the financial development and household savings and investigated on issues in domestic resource mobilization in Asian developing countries. The report revealed the following.

Household savings are one major source of internally generated investment capital. Domestic savings may be classified as public and private. Private savings are derived from the household sector.

Government (Public) saving rarely exceeds 1-3% of GDP in DMC's (except Bangladesh and Nepal, which have very low domestic saving ratios) Household (personal) savings account for the larger part of domestic savings.

Raising the interest ratio from r_0 to r' increases savings and investment. A progressive income tax is said to have disincentive effects on savings and investment.

Varghese Antony M has analysed the investment pattern of non-resident Keralites of the year 1988. The study was primarily based on empirical data collected from sample household surveys conducted in Pathanamthitta District. He found out that as regards the utilization of remittances by the emigrant households, a good part is used on current consumption. Regarding the pattern of investment of savings, bulk of it is invested in assets of an unproductive nature. Land and buildings take the major share of the savings. Only 19% of the savings are invested in any sort of income generating schemes.

Rajappan Nair A. has analysed the savings and investment pattern of college teachers with the help of primary data collected in the year 1989. He found out that a good part of the earnings of salaried persons are used for consumption purposes and that a major portion of the savings is applied in non-productive investments. Whatever savings available are invested in conventional and low income yielding sources like P.F. Life Insurance, National Savings Certificates, Fixed Deposits etc. People are unwilling to take any pains to select best channels of investments.

Arlene Fernandez has undertaken a study of the savings and investment pattern of employed women in 1990. She pointed out that savings and investments are positively correlated with the income and that financial planning increases the level of savings and investments. Arlene also noted that majority of the investments are for the requirements of housing, dowry, marriage and educational expenses.

Kapadia, M.B. member of the Institute of Chartered Accountants of India has conducted a study on tax planning through public provident

fund and the various tax provisions and explained the way in which an investor could avail maximum tax benefits through proper planning.

Srinivasa Madhur of Indian Council for Research on International Economic Relations, New Delhi has undertaken an empirical study on taxation and household savings in India in the year 1984 and showed that,

1. income taxation has significant effects on household savings
2. a reduction in the tax on interest income can lead to substantial increases in the household savings
3. taxation of food is much more detrimental than the taxation of non-food items from the point of view of fostering household savings.

Alice Mani has made an observation on the level of tax planning among the university employees at Cochin using primary data, in the year 1990. She found that majority of the employees do not have a direct financial plan to reduce their tax burden.

Even though a number of studies were conducted relating to the various aspects of personal finance, in the international level, national and state level, a comprehensive study covering the entire aspects of personal finance considering the life long financial objectives, goals, values and aspirations of an average Indian is not yet undertaken.

As far as individual house construction is concerned with its impact on personal finance had never been undertaken in India. Then again influence of personal financial planning practices of the individual with its association to the house construction is also a unique feature of this study. Even though there had been studies on low cost housing no study was undertaken so far measuring the personal financial

practice of the low cost house owners and its impact on house construction.

2.3 CONCLUSION

In this chapter the discussion was on various aspects of house construction and its impact on personal finance. On a very large canvass the need for shelter, standard requirements of houses, various studies on housing, housing status at world level, Indian level and Kerala level was discussed. An exhaustive list of studies on personal finance was also quoted to trace the growth of personal finance. Finally the importance of the present study and how it differs from other studies were also cited.

Chapter 2 – TABLES

Table 2.1
Distribution of Households by Type of Census
Houses Occupied in Kerala

Type of House	Rural	Urban	Total
Permanent	3191133	1302681	4493814
Semi-permanent	1185096	239279	1424375
Temporary	563847	109347	673194
Unclassifiable	2474	1349	3823
Total	4942550	1652656	6595206

Table 2.2
Distribution of Census Houses used as Residence and
Residence-cum-other use by their type of structure

Type of House	Rural	Urban	Total
Permanent	3165195	1287095	4452290
Semi-permanent	1174642	236040	1410682
Temporary	557754	107504	665258
Unclassifiable	2459	1332	3791
Total	4900050	1631971	6532021

Table 2.3
Distribution of Households by Size and Average Number of Dwelling
Rooms in Kerala

Household size	Rural	Urban	Total	Median number of rooms
1	145100	42002	187102	2
2	344194	113457	457651	2
3	638909	225298	864207	3
4	1439661	495126	1934787	3
5	1056917	332967	1389884	3
6-8	1018676	322157	1340833	3
9 and above	299093	121649	420742	4
Total	4942550	1652656	6595206	3

Table 2.4
Households by Number of Married Couples and Couples having
Independent Sleeping Rooms

Number of married couples per household	Rural	Urban	Total	Couples having independent sleeping rooms
None	642282	193219	835501	0
1	3508993	1171099	4680092	4267362
2	642378	223727	866105	1561044
3	122513	51450	173963	456884
4	21901	10602	32503	108398
5 and above	4483	2559	7042	28430
Total	4942550	1652656	6595206	6422118

Table 2.5
Distribution of Households by Availability of Bathroom and
Types of Latrine

Toilet facility	Rural	Urban	Total
No. of houses having bathroom within the house	2792551	1304163	4096714
Having pit type latrine	631664	183557	815221
Having water closet type latrine	3063983	1235462	4299445
Other types of latrine	324374	101728	426102
No latrines	922529	131909	1054438
Total	7735101	2956819	10691920

Table 2.6
Distribution of Households Classified by Availability of Electricity and
Latrine in Kerala

Availability	Rural	Urban	Total
Electricity and latrine available	2961945	1340095	4302040
No latrine but electricity available	276954	53728	330682
No electricity but latrine available	1058076	180652	1238728
No latrine and no electricity	645575	78181	723756
Total	4942550	1652656	6595206

Chapter 3

IMPACT OF HOUSE CONSTRUCTION ON THE INDIVIDUALS

Chapter 3

IMPACT OF HOUSE CONSTRUCTION ON THE INDIVIDUALS

*“Bank accounts are like toothpaste,
easy to take out, but hard to put back”.*

Anonymous

3.1 INTRODUCTION

The previous generation had lots of financial wisdom. That is why they were able to make sure that all the girl children were married off, all the sons were educated and were given houses and some ancestral property too. But today with all the facilities the nuclear families find it extremely difficult to do what their elders did for them. In the light of the above facts it will not be a mistake if we say that the older generation was more responsible than the present.

There may not be much of a disagreement if somebody says that the older generation and the present generation is handled by money. One reason why people are not able to get out of the money problem is the efforts taken, especially psychological, by the marketing people. It is as though people's mind were being tickled from every direction. People are tempted with discounts, after sales services, financial assistance etc. and finally they will fall into the trap. All calculations to pay will go haywire when there is a slight disequilibria, which is always there in life. To resist the temptation one needs very solid will power. People are not blessed with this. In fact one has to attain it.

There are people who say that life is a mystery. It unfolds by itself. But money is not a mystery. It is an inanimate thing. People can always make predictions about it. In fact, if people could visualize

their life a little to the future, they can visualize the following stages in life.

- a) Employment
- b) Marriage
- c) Children & their education (including professional)
- d) House building
- e) Daughter's marriage
- f) Retired life.

3.2 INCREMENTAL HOUSING

As was stated in the last paragraph there are six major decisions people have to make in life with respect to personal finance. People could ask there are questions whether this is universal? No, these are not universal. For example, to a Westerner children's higher education, daughter's marriage and owning a house are not as important as they are to an Indian and specially to a Keralaite. In the Western world a girl or a boy after 16 years of age is supposed to take care of herself or himself and hence, it is not a burden for the parents. The question of dowry doesn't arise, so also the ancestral house.

The younger generation might wonder how the elder generation could take care of such an investment as in housing with their meagre income. If the present generation look at the way the poor people construct their houses, they could understand the concept of incremental housing. The term incremental house means adding on as the requirement happens/arises. The previous generation used to build first what is called *Thallappura*. This is a large rectangle room with a small extension towards East. This extension is the kitchen and other rectangle room is meant for everything. This is the first stage of house construction where the family consists of father, mother and probably a child or two. When the children grow up, an extension is made to the same rectangle house for the girl child and when the boy

grows up, another extension is made to the other side. An extension to the front is an indication that his daughter has attained marriageable age. This process of adding on as and when the requirement comes and that too making use of the material wood, latrite etc. available in the one's own compound brings down the cost of construction considerably. Hence elder generation never faced the problems especially financial with respect to house construction as the present generation does.

As per the National Sample survey data collected during July-December 2002, about 7 out of 10 households in India are located in rural areas. The average number members in rural household was 5.15 and in an urban household 4.47. Almost all households had some kind of dwelling unit for living. The only 0.09% households did not have a dwelling unit for living (Cited in NSS Report No.488, 2005).

Out of every 100 households in rural areas, 36 houses were pucca, 43 semi-pucca and the rest kutcha. On the other hand, out of every 100 households in urban areas, 77 were pucca, 20 semi-pucca and only 3 kutcha. In urban slums, 67% of the dwelling units were pucca. (Ibid).

The States of Tripura, Manipur, Assam and Chhattisgarh were lagging considerably behind the national average in terms of households living in pucca houses. Rural areas of Delhi and Haryana, urban slums in Mizoram, Himachal Pradesh, Punjab and Haryana, and other urban areas of Delhi, Uttaranchal, J&K and Gujarat reported more pucca structures than the rest of the country.

Only 20% of dwelling units in urban slum areas had a plinth area of more than 50 sq.m. The corresponding percentage in rural areas was 35.

Plinth level of the house, i.e., the height of constructed ground floor of the house from the land on which the building was constructed, was zero in 36% of rural and 32% of urban dwelling units. On an average, a rural household occupied 38 sq.m. of floor area and an urban household occupied 37 sq.m. The poorest segment, i.e., households in the lowest monthly per capita consumption expenditure (MPCE) class in the rural areas got 31 sq.m. and that in the urban slums, 29 sq.m. Per capita floor area available was the lowest in urban slums (4.6 sq.m.) followed by the rural areas (7.5 sq.m.) and other urban areas (8.4 sq.m.).

Rural households with MPCE under Rs.225 had 4.8 sq.m. per capita floor area on an average while those with MPCE above Rs.950 had 16.7 sq.m. Again, urban households with MPCE under Rs.300 had 5.6 sq.m. per head while those with MPCE above Rs.1925 had 20.3 sq.m. Out of every 100 structures, 19 in the rural areas and 11 in the urban areas were in bad condition and required immediate major repair. Most of the rural households (92%) lived in a residence owned by them. In urban areas, 60% households lived in their own accommodation and about 29% in hired accommodation, paying around Rs.674 on an average as monthly rent. In urban slums, average monthly rent was Rs.352.

With respect to the availability of drinking water, electricity for lighting, and latrine, about 15% dwelling units in urban slums and 11% in rural areas had all the three facilities within their premises. At the other extreme, none of these facilities were available in about 30% of the dwelling units in the rural areas, 11% of dwelling units in the slums and squatter settlements and 4% of units in other urban areas. About 97% of rural and 99% of urban households got drinking water within 1km of their premises.

Around 76% of rural and 18% of urban households (32% in urban slums) did not have access to any latrine facility. Considering

both rural and urban areas together, the percentage of households lacking this facility was the highest in Chhattisgarh (82%), followed by Orissa (80%), Bihar (79%), Madhya Pradesh (77%), Jharkhand (76%), Rajasthan (72%) and Uttar Pradesh (72%). In addition, more than 80% households in the rural areas of Maharashtra, Tamil Nadu, Pondicherry and Karnataka did not have access to any latrine. About 25% of rural and 14% of urban households had undertaken some construction activity during the last 5 years, and thereby initiated 41 million constructions in the rural areas and 8.5 million in the urban areas. 34 million rural and 7.2 million urban constructions had been completed during this period.

In number of constructions initiated and completed during 1998-2002, Uttar Pradesh, with about 8 million constructions, topped the list followed by West Bengal (4.8 million), Tamil Nadu (4.7 million), Andhra Pradesh (4.1 million) and Maharashtra (3.1 million).

A similar NSS survey carried out 9 years earlier (1993) had collected data on constructions completed during the 5-year period 1989-1993. Comparison with this survey shows a fall in percentage of katcha constructions in rural India from 45% to 40% and a rise in percentage of pucca constructions from 34% to 38%. In urban India, there was a fall in katcha constructions from 18% during 1989-1993 to 12% during 1998-2002 and a rise in pucca constructions from 62% to 74%. On an average, a rural household spent about Rs. 1,13,000 in constructing a new pucca house, which had an average floor area of 42 sq.m., and about Rs.21,000 to alter or repair a pucca structure, which on an average involved 29 sq.m. of floor area. Households living in urban areas other than the slums, on an average, spent about Rs.2,63,000 to construct a new pucca dwelling unit with an average floor area of 53 sq.m. in urban slums, it required about Rs.80,000 to get a new pucca house with floor area of 24 sq.m. Average expenditure incurred by households on construction of new buildings was the

highest in the rural areas of Kerala (Rs.2,15,000). The construction is low in most North-Eastern States and in Bihar, West Bengal and Madhya Pradesh. In urban areas, households of Haryana spent the maximum (Rs.4,36,000) while households of Tripura (Rs.38,000), Jharkhand, Madhya Pradesh and Chhattisgarh (Rs.68,000 to Rs.76,000) spent the lowest amounts for a new building.

More than 70% of the expenses were on materials alone in all types of structures. Another 21% of the expenses were for the labour involved in the construction. In urban slums, the labour component was similar to other urban areas.

Households financed around 66% of rural and 62% of urban construction costs from their own resources. The role of moneylenders was most pronounced in urban slum areas where their share was about 15% of the expenses in general (29% in case of katcha constructions) and 21% of the expenses relating to major repairs. Financing from co-operative and government sources was understandably more in the case of pucca and semi-pucca constructions both in rural and urban areas.

The highest average expenditure for acquiring new ready-built accommodation was seen in urban Andhra Pradesh (Rs.8,99,000). The other high figures were noted in urban Himachal Pradesh (Rs.8,34,000), Punjab (Rs.7,86,000) and Assam (Rs.6,99,000). In the urban slums, households of West Bengal (Rs.2,50,000), Maharashtra (Rs.1,43,000) and Haryana (Rs.90,000) spent most on such acquisition.

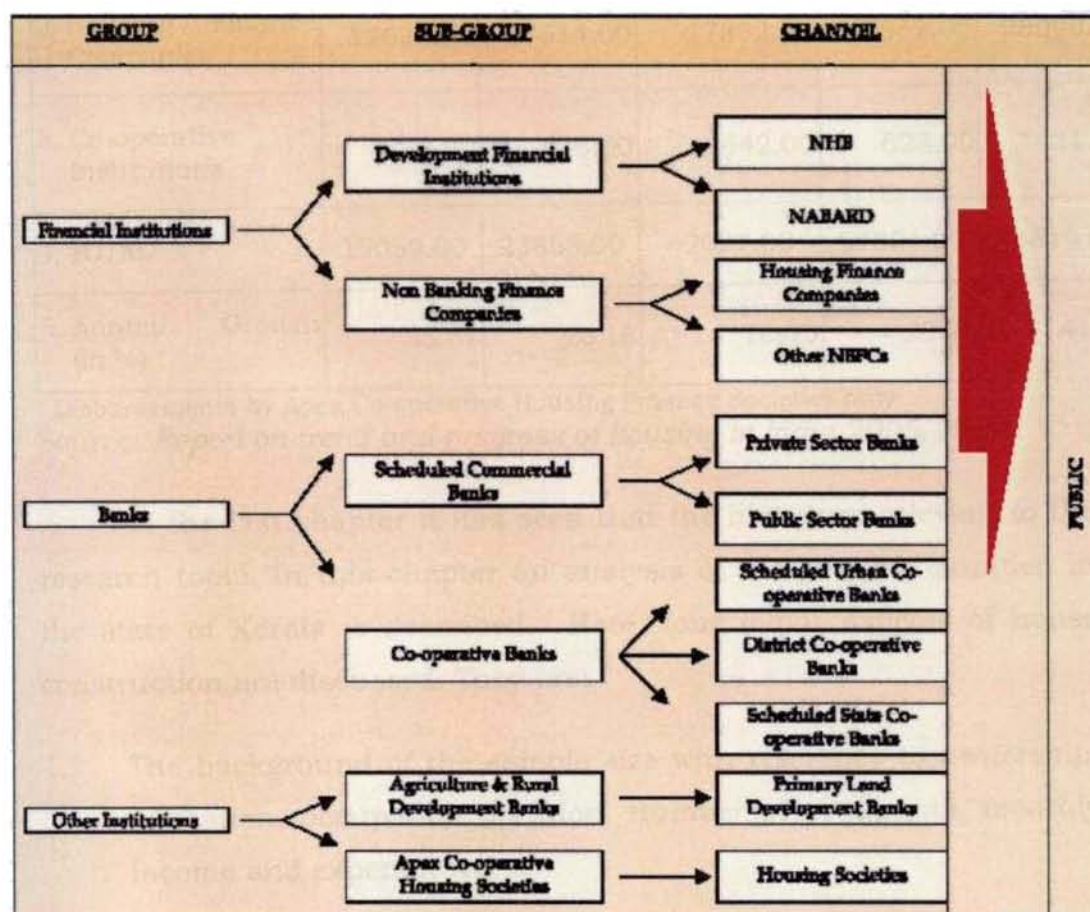
About 6% of rural and 19% of urban households (16% of the urban slum dwellers) owned dwelling units in places other than their current place of stay. About 45% of such dwelling units in case of urban slum households and 27% if all urban areas are considered were in a different State/UT. In both rural and urban areas, about 5% of

households owned a plot for constructing their residential accommodation some time in future.

3.3 THE HOUSING FINANCE SYSTEM IN INDIA

Various financial institutions meet the need for long term finance for housing in the country. They are scheduled commercial banks, scheduled co-operative banks (scheduled state co-operative banks, scheduled district co-operative banks and scheduled urban co-operative banks), regional rural banks, agricultural and rural development banks, housing finance companies and state level apex co-operative housing finance societies. The grouping of various housing finance institutions are clear from the given Chart 3.1.

Chart 3.1



The housing finance requirements of the people are met by the institutions indicated in the Chart 3.1 by way of their housing loan

schemes. Since housing finance becomes a part of the 40% priority sector lending, it makes business sense for banks to undertake this activity. Moreover, the tax benefits applicable to the housing loans act as catalyst for doing business in this sector. Security by way of mortgage of the house itself and robust demand have been major considerations for banks to lend to this sector. The year-wise details of housing finance disbursed by various institutions for the last five years are given in tabular form below:

Housing Finance Disbursements by various institutions [Rs.Crore]

Primary Lending Institutions (PLIs)	2000-01	2001-02	2002-03	2003-04	2004-05
1. Commercial Banks*	5553.00	8566.00	23553.00	32816.00	50398.00
2. Housing Finance Companies	12638.00	14614.00	17832.00	20862.00	26000.00
3. Co-operative Institutions	868.00	678.00	642.00	623.00	*421.00
4. TOTAL	19059.00	23858.00	42027.00	54301.00	76819.00
5. Annual Growth (in %)	35.07	25.18	76.15	29.21	41.47

* Disbursements by Apex Co-operative Housing Finance Societies only

Source: *Report on trend and progress of housing in India 2005, NHB.*

In the last chapter it has seen that the literature relevant to the research topic. In this chapter an analysis of the present situation in the state of Kerala is described. Here, four major aspects of house construction are discussed. They are:

1. The background of the sample size with reference to ownership, education, occupation, location, number of occupants, monthly income and expenditure.

2. Time taken to construct the house, income and size of the house, location and size of the house, estimated and actual costs of construction, Break up of total cost and reasons for variation.
3. The financing aspect consists of number of sources of loan, repayment period, monthly income and total installment payable, regularity in repayment of loan, reasons for default and management of the resultant crisis.
4. The impact of house construction consists of savings within one year and after one year, debt, annual maintenance cost, number of years taken to balance the home budget, debt trap, and income tax benefits on house construction.

From the analysis of the above aspects inferences and conclusions are drawn with the help of various statistical tools. The tools used are averages and percentages, T-tests, chi-square, ANOVA, multiple response analysis and factor analysis.

3.4 PROFILE OF THE SAMPLE

The total sample size of the non low cost house owners is 300 drawn from three districts namely Trivandrum, Ernakulam and Calicut giving due representations for Corporations, Municipalities and Panchayaths.

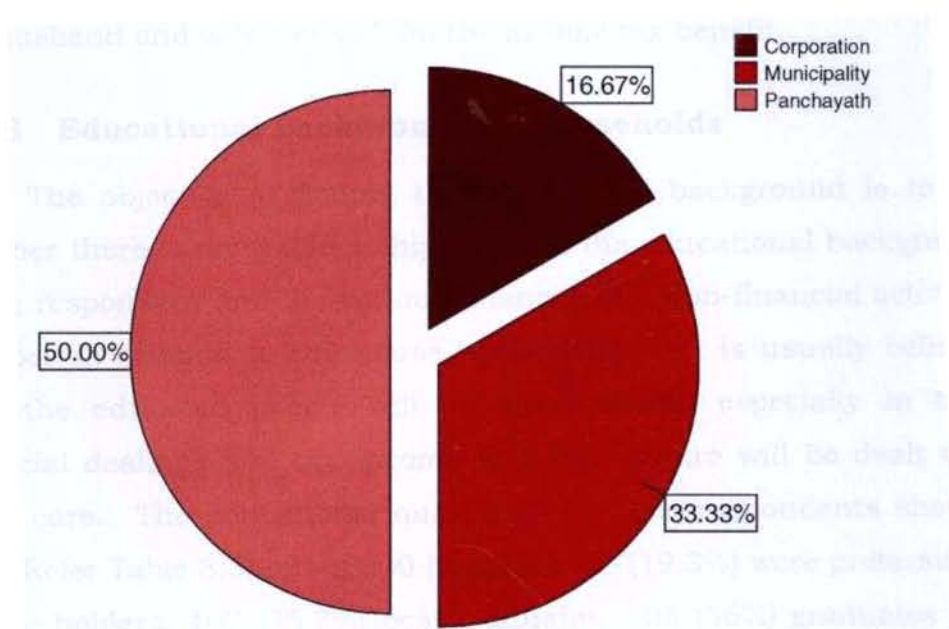
3.5 THE BACKGROUND OF THE HOUSE OWNERS

The background of house owners with respect to location, ownership nature, educational qualification, occupation, age and number of occupants at the time of constructing the house are explained below:

This constitutes 16.7, 33.3 and 50 per cent respectively as shown in Chart 3.2. The pilot study conducted among salaried class in Kalamassery Municipality revealed that more than 50% of the employees, though they are employed in Municipal limits, are staying in Panchayaths and nearly 25% are staying in Corporation limits.

Chart 3.2

Chart showing location wise sample distribution



3.5.2 Ownership of the house constructed

It is important that we have an idea regarding the ownership pattern of the respondents especially when it is related to the house construction under consideration. It may also be useful in later analysis to check up whether the ownership has any effect on any of the variable that is subjected to study. The Table 3.1 shows the break up of the ownership on the basis of location. Of the 300 houses covered in the survey 180 houses, were owned by husbands, 42 by wives and the remaining 78 were owned jointly. It can be seen from the Table 3.2 that majority of the houses were owned by husbands (60%) wives, 14% and the remaining 26% were owned jointly. A major reason for wife owning the house could be the title deed is in the name of the wife on

the remaining 78 were owned jointly. It can be seen from the Table 3.2 that majority of the houses were owned by husbands (60%) wives, 14% and the remaining 26% were owned jointly. A major reason for wife owning the house could be the title deed is in the name of the wife on the security of which a loan is taken or it could be that the husband is not a salaried employee and so loan cannot be taken in his name. The joint ownership is usually when both the persons are employed and taken the loans and the installments are deducted from the salary. Another reason why ownership jointly taken is so that both the husband and wife could claim the income tax benefit.

3.5.3 Educational Background of Households

The objective of finding the educational background is to see whether there is any relationship between the educational background of the respondent and the various financial and non-financial activities he does in relation to the house construction. It is usually believed that the educated people will be more careful especially in their financial dealings and the income and expenditure will be dealt with more care. The educational qualification of the respondents showed that (Refer Table 3.3) out of 300 husbands 58 (19.3%) were professional degree holders, 107 (35.7%) post graduates, 108 (36%) graduates and 27 (9%) undergraduates whereas the educational qualifications of the wives showed that 31 (10.3%) are professionally qualified, 62 (20.7%) post graduates, 149 (49.7%) graduates and 58 (19.3%) undergraduates. Among the husbands maximum number of respondents were 108 graduates and are closely followed by 107 postgraduates. Put together they came up to 71.7%. It is interesting to note that more than one sixth of the respondents were professionally qualified. Among the females 49.7% were graduates and there were only 10.3% of them professional degree holders (Refer Table 3.3). On the whole it can be observed that lack of adequate education cannot stand in the way of decision-making in the context of house construction. This is

important because many a time when the loans are taken the contracts contain lot of legal points that have to be clearly understood. It is also important that the various documents associated with ownership are to be understood thoroughly.

3.5.4 Occupational Background of Households

Occupational background is important for further analysis to see whether there is any relationship with particular occupation and the other aspects studied. This also provides an opportunity to see whether the excellence in occupation is reflected in own house construction. An analysis of the occupational background of the respondents showed that no husband was unemployed. There were 18 (6%) doctors, 24 (8%) engineers, 23 (7.7%) college/university teachers, and 93 (31%) supervisory officers. There were 58 (19.3%) non-supervisory employees, 28 (9.3%) schoolteachers and 56 (18.7%) others. On the other hand, among the wives 103 (34.3%) were unemployed. There were 6 (2%) doctors, 13 (4.3%) engineers, 14 (4.7%) college/university teachers and 25 (8.3%) supervisory officers. Out of the remaining 49 (16.3%) were non-supervisory employees, 44 (14.7%) schoolteachers and 46 (15.3%) others. The analysis showed that among the male respondents 93 (31.3%) held supervisory positions and they formed the largest group and among the females 49 (16.3%) non-supervisory employees were the largest group. (Refer Table 3.4). On the whole it can be said that more than 50% of the respondents are in the officer cadre and rest are in the non-officer category and the Table 3.4 again shows that while there are 103 unemployed housewives all the husbands are employed. Another way of saying it is that two third of the husbands received financial support from their wives.

3.5.5 Age at the time of House Construction

Under Indian conditions a person should finish his house construction before he reaches 35 years of age. The simple logical

reason for this is that house construction is a mega financial activity and as such it will have major implications on personal finance. Then the individual should take the other financially important decisions such as children's education and then their marriages. But what really observed is that salaried employees think of constructing houses when they are in their late 40's. They will have only a few more years to go and they have to execute all the major decisions such as their children's education, their marriage and ultimately their and their spouse's retirement planning. All these results in heavy financial burdens and that will strangle the poor employees. Hence it is better that they construct houses as early as possible. As per Table 3.5(a) the age of 168 (56%) husbands at the time of constructing their houses varied between 30 to 40 years. In the case of 105 respondents (35%) the age varied between 40 to 50 years and 16 respondents (5.3%) belonged to 50 plus age group.

Out of the 300 wives, 204 (60%) were in the age group of 30 to 40 years, 50 (16.7%), in the age group of 40 to 50 years, 43 (14.3%), in the below 30 age group and the remaining three (1%) in the above 50 age group.

The analysis shows that majority of the respondents constructed their houses between 30 and 40 years of age, which is more or less in tune with what was stated earlier.

3.6 YEAR OF CONSTRUCTION

Table 3.5(b) shows the year of construction of houses by different respondents in the sample. The sample period is 5 years from 2001 to 2005. Maximum number of respondents, 77 (25.7%) constructed houses in 2005 while 74 of them (24.7%) constructed their houses in 2002. In 2003; 65 respondents (21.7%) constructed their houses and 45 respondents (15%), in 2004 and 39 respondents (13%), in 2001. It can be seen from the table that number of respondents who

constructed houses are spread over a period of time and hence they cannot influence on a larger scale.

3.7 FAMILY COMPOSITION

Personal finance is highly related to the nuclear family concept. In the case of joint families the resources had to be pooled from different sources whereas under nuclear family system there is probably only a single source of income or at the most a secondary source also. The risk bearing capacity as well as the ability to absorb financial strains is very limited for a nuclear family and it is much more limited if only one person is employed.

Information regarding family composition reveals the type of family, number of occupants, number of employed members, and average number of occupants per house.

3.7.1 Type of Family

Of the 300 families surveyed 265 (88.3%) represented nuclear families and the remaining 35 (11.7%), joint families (Table 3.6). This clearly reveals that a massive majority (88.3%) of the salaried employees have nuclear families. Only a minority (11.7%) is found to have joint families.

3.7.2 Number of Occupants

Table 3.7 shows that 123 (41%) houses have four occupants, 64 (21.3%) houses, three occupants, 57 (19%) houses, five occupants, 40 (13.3%) two occupants and 16 (5.3%) houses have six or more number of occupants. The analysis further shows that the highest number (41%) represented the typical nuclear family set up with four members each in their houses. It is worth to note that even in the case of joint family set up the maximum number of occupants are only six.

As per Table 3.8 the average number of occupants per house is 2.82. The purpose of this analysis is to make an assessment with regard to the size of the house constructed. This will help to know the average square feet per occupant and that will help to make a comparison with those in the developed countries.

3.7.3 Number of Employed Members

An analysis of number of employed members in the family showed that in 180 (60%) households both husband and wife were employed. In 112 (37.3%) households only one person was employed, in six (2%) families three members were employed and in two (0.7%) families 4 or more occupants were employed. (Refer Table 3.9) The analysis reveals that in majority of the houses (60%) both the husband and wife were employed and only a very nominal case three persons (2%), were employed.

As per Table 3.8, the average number of members employed per family is 1.66.

As per the Table 3.10 the average number of grown up members per family was 2.31 and average number of growing members was 1.80.

3.8 HOUSEHOLD INCOME AND EXPENDITURE

The total monthly income of the households were analysed based on the salary and income from other sources. Similarly the data related to monthly expenses were also collected.

3.8.1 Monthly Income from Salary

The total monthly income (Refer Table 3.11) were expressed at seven levels, viz., below Rs.5,000, Rs.5,000 to Rs.7,500, Rs.7,500 to Rs.10,000, Rs.10,000 to Rs.15,000, Rs.15,000 to Rs.20,000, Rs.20,000 to Rs.30,000 and above Rs.30000. Of the 300 respondents 107 husbands (35.7%) had income between Rs.10,000 to Rs.15,000, 73

husbands (24.3%) had an income between Rs.7,500 and Rs.10,000, 56 husbands (18.7%) had an income between Rs.15,000 and Rs.20,000, 25 husbands (8.3%) had income between Rs.20,000 and Rs.30,000 and 39 husbands (13%) had income between Rs.5,000 to Rs.7,500.

On the other hand 74 wives (24.7%) had income between Rs.7,500 and Rs.10,000, 51 (17%) wives had an income between Rs.10,000 to Rs.15,000, 45 (15%) wives had an income between Rs.5,000 and Rs.7,500. 51 (17%) wives had income between Rs.10,000 and Rs.15,000. 23 wives (7.7%) had income between Rs.15,000 to Rs.20,000. There were two wives (0.07%) with income between Rs.20,000 and Rs.30,000 and another two (0.07%) with income above Rs.30,000. It may be noted that there were no husbands with income above Rs.30,000 but there were two wives in this category.

In twenty one families, among the 300 surveyed have salaried persons other than the husband and the wife. Among these eight persons (2.7% of 300 respondents) earn monthly income between Rs.5,000 and Rs.7,500, Six earn (6%) income between Rs.10,000 and Rs.15,000, (1.3%) between Rs.7,500 and Rs.10,000 and there one (0.3%) each between Rs.15,000 to Rs.20,000, Rs.20,000 to Rs.30,000 and above Rs.30,000.

Out of the 300 households surveyed 182 households were had other sources of income and out of which 127 households (42.3%) had a monthly income of below Rs.5,000 from other sources 50 (16.7%) households had monthly income between Rs.5,000 and Rs.7,500 and the remaining five (1.7%) households between Rs.7,500 and Rs.10,000. There were 118 (39.3%) households who did not respond to questions related to other source of income.

3.8.2 Total Monthly Income

Very few families had income from other sources. Total monthly income which is shown in Table 3.12 shows that 88 families (29.3%), had total monthly income between Rs.10,000 and Rs.15,000. Seventy three families (24.3%), between Rs.30,000 and Rs.40,000. Forty seven families (15.7%) between Rs.20,000 and Rs.30,000. There were 36 households (12%) with a total monthly income below Rs.10,000, while 29 households (9.7%) had monthly income above Rs.50,000 and remaining 27 households (9%), total monthly income between Rs.40,000 and Rs.50,000. It can be concluded that major share of the income of the households came from husbands earnings and the total income of the households on an average ranged between Rs.20,000 and Rs.30,000. The purpose of these two tables here is to make an analysis of the family income as a whole and to make comparison with the investment made in the house, size of the house, the loan taken for the house construction and also the capacity of the repayment of the housing loans.

3.8.3 Domestic Monthly Expenses

As per Table 3.13, 184 families (61.3%) had monthly domestic expenses ranging between Rs.5,000 and Rs.10,000. 65 households (21.7%) had expenditure below Rs.5,000. 48 families (16%) incurred domestic expenditure between Rs.10,000 and Rs.15,000. There were three households (1%) with monthly domestic expenditure of Rs.15,000 and above. The purpose of this analysis is to have idea about the savings pattern of the employees/households.

3.9 RESIDENTIAL STATUS BEFORE CONSTRUCTION

To ascertain the residential status before house construction three questions were asked. They are:

1. where did you stay before constructing the present house?

2. if rented, the amount of rent paid
3. size of the rented house.

The purpose of this analysis is to have some idea about the size of the house taken on rent and also the rent paid for it. The size of the rented house can be used for a comparison on a later point of time with the size of the house constructed and also the rent paid can be compared with the cost of capital (interest) invested in the house building.

As per Table 3.14, 215 respondents (71.7%) stayed with their parents, 33 respondents (11%) in quarters and the remaining 52 respondents (17.3%) in rented houses. It may be noted that majority of the salaried employees (more than 70%) were leading joint family life before the construction of their house. The employees who stayed in rented houses or stayed in quarters were compelled to be stayed away from their parents.

Among the 300 respondents 248 (82.7%) respondents were staying in their own house with parents. Of the remaining 52 respondents who stayed in rented houses 34 (11.3%) persons were paying rent in between Rs.1,500 and Rs.3,000, 9 (3%) respondents were paying rent in between Rs.3,000 and Rs.5,000, 7 (2.3%) respondents were paying less than rupees Rs.1500 and 2 (0.7%) were paying more than Rs.5,000. (Refer the Table 3.15). Out of the 52 employees stayed in the rented houses 50 were paying rent below Rs.5,000 and only two persons were paying rent above Rs.5,000.

Thirty one (10.3%) respondents were staying in rented houses of size in between 1000 and 1500 sq.ft., 6 (2%), ranging from 1500 to 2000 sq.ft., 13 (4.3%) respondents below 1000 sq.ft. and two (2.7%) in the sizes of above 2000 sq.ft. (Refer Table 3.16).

It may be noted that an individual when he constructs a house always asks a question, "What should be the investment in the house"? This is relevant because there is an old saying that "an idiot builds a house and a wise man lives in it". This is because the rent of the house is so low compared to the interest of the amount invested in the constructed house. Hence the cost of capital is taken as risk free return namely bank interest. The cost of the investment can be calculated by multiplying the rent for the house in that area by the inverse of the opportunity cost (here the bank interest).

3.9 SIZE OF RENTED HOUSE AND THE SIZE OF HOUSE CONSTRUCTED

Of the house owners who stayed in rented houses before the construction of their own houses 13 (25%) were staying in rented houses of the size below 1000 sq.ft. 31 (59.6%) were staying in rented houses of 1000 and 1500 sq.ft., 6 (11.5%) were in 1500 and 2000 sq.ft. and 2 persons (3.9%) in above 2000 sq.ft. Out of the 13 respondents stayed in rented houses of below 1000 sq.ft. Three (23.1%) had constructed own houses of similar size, 8 (61.5%) had constructed house of 1000 and 1500 sq.ft. and the other two (15.4%) constructed houses of 1500 and 2000 sq.ft. (Refer Table 3.17(a)).

Among the 31 respondents who were staying in the rented houses between 1000 and 1500 sq.ft. one (3.2%) constructed own house less than 1000 sq.ft., 19 (61.3%) between 1000 and 1500 sq.ft., 8 (25.8%) between 1500 and 2000 sq.ft. and the remaining 3 (9.7%) above 2000 sq.ft.

Among the six households who stayed in rented houses of between 1500 and 2000 sq.ft., four constructed similar size houses, one between 1000 and 1500 sq.ft. and the other one of above 2000 sq.ft.

The two households who stayed in the rented house of above 2000 sq.ft. constructed only smaller houses. One of them constructed a house with 1000 and 1500 sq.ft. and the other constructed a house of 1500 and 2000 sq.ft.

The association between the size of the own house constructed and the rented house in which they were staying is statistically tested by using chi-square and it is proved that there is no association in between the rented and self constructed houses. Since the significance level of the likelihood ratio is greater than 0.05 it is concluded that there is no statistically significant association between the rented house and the size of the own house constructed.

Out of the total 52 respondents who were staying in rented houses 22 had built houses much bigger than the earlier rented house. Since the significance level of likelihood ratio is greater than 0.05, (as per chi-square test) it is concluded that there is no statistically significant association between the size of the rented house and the size of the building self constructed. (Refer Table 3.17(b)).

3.11 TIME TAKEN FOR CONSTRUCTION

One major reason for the cost overrun is delay involved in house construction. This is a usual phenomena but the impact of this is very high on the cost of house construction. As the time increases the prize of the raw material and the labour charges up and the probability of these things coming down once they have gone up is remote. The time delay has another effect in the sense that one has to pay interest on the loan that is already taken. Adding fuel to the fire the person will be forced to continue to live in the rented house paying even higher rent. Table 3.18 shows the time taken for the completion of the house along with the size of the house constructed. The table shows two aspects viz., the delay in association to the size. From the table one thing is clear. Nobody was able to complete construction on time. Only 11

people were able to complete construction within six months while 109 people managed to finish in six to 12 months time. 94 people took 12 to 18 months while 49 people, 18 to 24 months and 37 people more than 24 months. From the table it is clear that 180 out of 300 respondents had taken more than one year to complete their house construction.

A cross analysis relating to delay in construction vis-à-vis the size of the house 34 out of 48 respondents who constructed houses below 1000 sq.ft. had taken more than one year to complete their houses. Of the 162 who constructed house between 1000 to 1500 sq.ft. 91 had more than one year of delay, 76 who constructed houses of 1500 to 2000 sq.ft. 46 had delay more than one year, and 14 who constructed houses above 2000 sq.ft. 9 had delay more than a year.

Since the significance level of likelihood ratio is less than 0.05 it is concluded that there is statistically significant association between the size of the house and the time taken for completing the house construction. (Refer Table 3.18(b)).

3.12 NUMBER OF OCCUPANTS AND SIZE OF THE HOUSE CONSTRUCTED

Table 3.19 shows that out of 40 two-member families no one had constructed houses less than 1000 sq.ft, 27 (67.5%) constructed houses between 1000 to 1500 sq.ft, 9 (22.5%) constructed houses of 1500 and 2000 sq.ft. and 4 (10%) constructed houses above 2000 sq.ft.

Out of the 64 families with three members 35 (54.7%) had constructed houses between 1000 and 1500 sq.ft, 17 (26.6%) constructed houses between 1500 and 2000 sq.ft and three (4.7%) constructed houses above 2000 sq.ft. Only nine (14.1%) had constructed houses below 1000 sq.ft.

One hundred and twenty three families had four occupants each in their houses. Of them 63 (51.2%) built houses between 1000 and

1500 sq.ft, 27 (22%) houses between 1500 and 2000 sq.ft, six (4.9%) houses above 2000 sq.ft and 27 (22%) houses below 1000 sq.ft.

Among the 57 families with five occupants each 30 (52.6%) had constructed houses between 1000 and 1500 sq.ft, 18 (31.6%) houses between 1500 and 2000 sq.ft., one (1.8%) house above 2000 sq.ft while eight (14%) houses below 1000 sq.ft.

Sixteen families had six members each in their houses, and out of them seven (43.8%) had constructed houses between 1000 and 1500 sq.ft, five (31.3%), houses between 1500 and 2000 sq.ft., four houses below 1000 sq.ft. Nobody had constructed houses above 2000 sq.ft.

It may be noted that among the 300 respondents 162 numbers (54%) had constructed houses of 1000 to 1500 sq.ft irrespective of the number of occupants. In other words the average size of houses constructed is at a size of 1000 to 1500 sq.ft.

3.13 SOURCES OF INCOME AND SIZE OF HOUSE BUILDING

As per Table 3.20 there were 50 house owners with single source of income, 116 house owners were having two sources of income, 118 with three sources and 16 house owners with four sources of income. Among the respondents with single source of income 25 (50%) respondents built houses between 1000 to 1500 sq.ft. 18 (36%) built houses below 1000 sq.ft. and 7 (14%) built houses between 1500 to 2000 sq.ft. No one built houses above 2000 sq.ft.

Among people who had two sources of income 65 (55.2%) had built houses between 1000 to 1500 sq.ft. 23 (19.8%) had built houses between 1500 to 2000 sq.ft. 21 (18.1%), houses below 1000 sq.ft and 8 (6.9%) above 2000 sq.ft.

Among 118 respondents with three sources of income 68 (57.6%) built houses between 1000 to 1500 sq.ft. and 38 (32.2%) houses

between 1500 to 2000 sq.ft., eight (6.8%), below 1000 sq.ft and four (3.4%) houses above 2000 sq.ft.

Among the people with four sources of income 8 (50%) had built houses of 1500 to 2000 sq.ft., 5 (31.3%) houses of 1000 to 1500 sq.ft., two (12.5%) houses above 2000 sq.ft. and one (6.3%) built a house below 1000 sq.ft. 162 respondents out of 300 had built houses between 1000 to 1500 sq.ft. irrespective of the number of sources of income.

Since the significance level of likelihood ratio is less than 0.05, it is concluded that there is statistically significant association between the number of income sources and the size of house constructed.

3.14 HOUSE BUILDING: LOCATION Vs. SIZE

An analysis of the location of the house vis-à-vis the size of the house constructed showed that there is statistically significant association between the location and the size of house constructed. Table 3.21 shows that among the 50 respondents from corporation 31 respondents (62%) constructed houses of 1000 to 1500 sq.ft. 13 respondents (26%) houses of 1500 to 2000 sq.ft., five respondents (10%), houses above 2000 sq.ft and only 1 respondent (2%) a house below 1000 sq.ft.

Among the 100 respondents from the municipality 52 respondents (52%) had constructed houses of 1000 to 1500 sq.ft. 33 respondents (33%), houses of 1500 to 2000 sq.ft. 12 respondents (12%), houses below 1000 sq.ft. while the remaining three, (3%) had constructed houses above 2000 sq.ft.

Among 150 respondents from Panchayath 79 respondents (52.7%) constructed their houses in the size of 1000 to 1500 sq.ft. while 35 (23.3%), houses below 1000 sq.ft. 30 (20%), houses in the size of 1500 to 2000 sq.ft. and six (4%), houses in the size above 2000 sq.ft.

A close examination of the Table 3.21 shows while majority (62%) of respondents built houses in the size of 1000 to 1500 sq.ft. 26% of the respondents in the corporation area built houses of 1500 to 2000 sq.ft and 2%, built house above 2000 sq.ft. In the case of the Panchayath, 23.3% of the respondents built houses below 1000 sq.ft. and 4% built houses of 2000 sq. ft. or above category. In the Municipal area, majority (52%) of the respondents built houses in the size between of 1000 to 1500 sq.ft, 33% houses of 1500 to 2000 sq.ft and 3%, houses of 2000 sq.ft. and above. If we consider all the houses constructed above 1000 sq.ft. It can be concluded that corporation accounted for bigger houses than Municipality and Municipality accounted for bigger houses than the Panchayath.

3.15 ESTIMATED COST AND ACTUAL COST

The Table 3.22 shows the total cost of house building against years of construction. In 2001, average cost of a house below 1000 sq.ft. was Rs.3,93,000, for a house of the size between 1000 and 1500 sq.ft. the average cost was Rs.7,99,696, a house of 1500 to 2000 sq.ft. accounted for Rs 11,80,625 and a house of 2000 sq.ft. and above accounted for Rs 15,00,000. These amounts doubled with in a period of 5 years from 2001 to 2005. In 2005 the average cost of construction of a house below 1000 sq.ft. was Rs.6,25,000. 1000 to 1500 sq.ft. accounted for Rs.12,32,625 while a house of 1500 to 2000 sq.ft. accounted for Rs.17,55,263 and a house of 2000 sq.ft. and above accounted for Rs.30,25,000.

For a house of less than 1000 sq.ft. the cost of construction was Rs.3,93,000 in 2001 whereas it was Rs.6,25,000 in 2005 and the increase was less than twice of the amount. For a house of 1000 to 1500 sq.ft. it was Rs.7,99,696 in 2001 and it increased to Rs.12,32,625 in 2005 roughly showing an increase of less than 5 lakhs whereas for a house of 1500 to 2000 sq.ft. it was Rs.11,80,625 in 2001 which increased to Rs.17,55,263, which shows an increase of less than six

lakhs while in the case of houses above 2000 sq.ft. it recorded Rs.15,00,000 in 2001 and Rs.30,25,000 in 2005 recording more than double increase. If we follow the cost chronologically, we will find that in some years the increase in cost of construction was much more than in other years. The table categorically shows that cost of house construction had been increasing considerably.

3.16 LOCATION WISE DIFFERENCE

Table 3.23(a) & (b) presents that the difference in total cost and estimated cost on the basis of the locational difference viz., Corporation, Municipality and Panchayath. The average total cost of house construction in Corporation area was Rs.13,86,100 while the estimated cost was Rs.1135800. This shows a difference of Rs.2,50,300 between estimated cost and the actual cost. In the Municipality the total average cost was Rs.12,46,040 and estimated cost was Rs.10,33,550 marking a difference of Rs.2,12,490. In the case of Panchayath area the average total cost of Panchayath was Rs.10,64,507 and the estimated cost Rs.8,12,933. This shows a difference of Rs.2,51,573. It can be noted that the difference between the estimated cost and actual cost was the highest in Panchayath, less in the Corporation and the lowest in Municipality.

Table 3.23(b) shows the details of the paired sample test conducted and 2-tailed significant value is nil for Corporation, Municipality and Panchayath. Hence it is concluded that the difference between the mean values of total cost and the estimated cost is statistically significant across different locations.

3.17 INCOME CLASS WISE DIFFERENCE IN COST OVERRUN

An estimation of cost overrun (total cost minus estimated cost) and its association with the income of the respondent is shown in Table 3.24(a) & (b). As per the table, difference between the estimated and actual cost was the highest in the income group of above Rs.50,000. In

this group the difference between the averages of actual cost and the estimated cost was Rs.3,12,517 and the lowest was in the income group of below Rs.10,000 per month, amounted to Rs.1,60,694. The income group of Rs.30,000 to Rs.40,000 showed a difference upto Rs.2,70,493 between the averages of actual cost and estimated cost. In fact the difference between the averages of actual cost and estimated cost in the income group of Rs.20,000 to Rs.30,000 was Rs.2,22,766 which is less than the difference of Rs.2,27,705 recorded for the income group of Rs.10,000 to Rs.20,000. Similarly, the difference between the averages of actual cost and estimated cost in the income group of Rs.30,000 to Rs.40,000 was more than the differences of the income group of Rs.40,000 to Rs.50,000. In the case of the first group it was Rs.2,70,493 and in the case of latter it was only Rs.2,36,963.

Table 3.24(b) shows the details of the paired samples test conducted and it shows that the difference between the mean values of actual cost and estimated cost is statistically significant across different income groups. It may also be noted from the Table 3.24(a) that the highest number of respondents (88) belonged to the income group of Rs.10,000 to Rs.20,000 followed by (73) the income group of Rs.30,000 to Rs.40,000. The lowest number of respondents (27) belonged to the income group of Rs.40,000 to Rs.50,000. A comparison between the income groups shows that in the income group of Rs.10,000 to Rs.20,000 the number of respondents are much more than twice the number of respondents in the income group of Rs.40,000 to Rs.50,000.

3.18 SIZE OF THE BUILDING AND THE COST OVERRUN

A comparison between the average values of actual cost and the estimated cost for the different sizes of house buildings is shown in Table 3.25(a). As per the table more than 50% of the respondents (162) built houses in the range of 1000 to 1500 sq.ft. Only 40 respondents constructed houses above 2000 sq.ft and 42 respondents houses below 1000 sq.ft. 76 respondents constructed houses between 1500 to 2000

sq.ft. The average actual cost was Rs.5,61,208 and the average estimated cost, Rs.4,51,250 for a house of less than 1000 sq.ft. The average actual cost was Rs.10,51,167 and the average estimated cost Rs.8,50,903 for houses between 1000 to 1500 sq.ft. In the case of houses between 1500 to 2000 sq.ft. the average actual cost was Rs.15,68,290 while the average estimated cost Rs.13,48,290. With regard to houses of more than 2000 sq.ft. and above, the average actual cost was Rs.26,54,857 and the average estimated cost, Rs.15,03,571. It may be noted that the difference between the average actual cost and the average estimated cost was Rs.2,20,000 in the case of houses having plinth area ranging from 1500 to 2000 sq.ft. The difference between the average actual cost and average estimated cost was the lowest in the case of houses of less than 1000 sq.ft. (Rs.1,09,958). For the houses of 1000 to 1500 sq.ft. the difference between the average actual cost and the average estimated cost was Rs.2,06,074 and for houses of 2000 sq.ft. and above the difference was the highest ie., Rs.11,51,286.

The Table 3.25(b) shows the details of the paired samples test conducted and the 2-tailed significant value obtained is nil for all the sizes of house building except for 2000 sq.ft. and above. The 2-tailed significant value for the size of the house above 2000 sq.ft. is 0.003. However, all the significant values are less than 0.05, it is concluded that the difference between the mean values of actual cost and the estimated cost is statistically significant across different sizes of house buildings.

3.19 REASONS FOR VARIATION

The researcher wanted to ascertain the reasons for variations in the actual cost and the estimated cost. For this, the responses of the respondents were scrutinized. Since the respondents had more than one reason, they have given multiple responses to the enquiry. So the data were analysed by multiple responses system. Therefore the total

number of responses were greater than the total number of respondents. The results of multiple responses give 'N' (the number of responses) 'percentage of responses' and 'percentage of cases' (percentage of count to the total number of respondents). Since there is the possibility of more than one response from a respondent the total of the 'percentage of cases' will be greater than 100. The results show that the common reasons for variation between actual cost and the estimated cost were the price escalation and delay in completion.

Table 3.26 presents the various reasons for variation between the actual cost and the estimated cost. Of the 579 responses 33.5% assigned price escalation as the main reason 25.9% assigned delay in completion as the second major reason. Ornamentation and social pressure were also reasons for change in the estimated cost and the actual cost. Change in the plan and the resultant additional construction was the other reason assigned for the difference between the actual cost and the estimated cost (14.5%).

3.20 SIZE-WISE BREAK UP OF TOTAL COST

An analysis of total cost of construction is provided in Table 3.27. The table also shows variations in the total cost and the elements of cost vis-à-vis the size of the building. It may be noted that among the nine elements of cost identified as percentage of cost, the structure accounted the highest share (25%). This is followed by foundation and wood which accounted 15% and 12% respectively. Both sanitary and flooring accounted for 10% each while electrification and plastering accounted for 8%. Painting and miscellaneous accounted 5% and 7% respectively. This is with regard to houses below 1000 sq.ft. For houses between 1000 and 1500 sq.ft. the most prominent cost element was again cost of structure (25%). This was followed by foundation cost (15%) and cost of wood (14%). The cost of flooring and sanitary fittings accounted for 10% each, for electrification and miscellaneous were 8% and 4% respectively. Both painting and plastering recorded

7% each. For houses of 1500 to 2000 sq.ft. the highest cost element was structural cost of 24% followed by cost of wood 17%, foundation cost and cost of flooring were 12% and 11% respectively while painting and electrification were 8% each. Plastering and miscellaneous accounted for 7% and 3% respectively. With regard to houses of 2000 sq.ft. and above, the main cost element was structure followed by wood—23% and 20% respectively. Flooring and foundation recorded 12% each while sanitary and electrification accounted for 8% and 7% respectively. Plastering and miscellaneous accounted for 5% and 3% respectively. An analysis of percentage wise break up shows that it was the cost of structure that accounted the highest percentage for all the sizes of houses built. Cost of foundation is seen to be decreased as the size of the house increased. But cost of wood increased from 12% in the cases of houses below 1000 sq.ft. to 20% for houses of 2000 sq.ft and above. Sanitary expenses remained the same for three sizes of houses and came down to 8% for houses of 2000 sq.ft. and above. Cost of plastering also slightly came down as the size of house increased. So also is the miscellaneous expenses. Electrification charges more or less remained the same except for the last year.

Amount-wise analysis of total cost for houses below 1000 sq.ft is given below. The total cost of a house building was Rs.5,61,208 and cost of structure formed Rs.1,40,302 and foundation cost, Rs.84181. Cost of wood was Rs.67345, electrification, Rs.44896, sanitary, Rs.56,120, plastering, Rs.44,896, flooring Rs.56,120 and painting Rs.39,284. Percentage-wise analysis shows the cost varied between 5% to 25%. Foundation accounted 15% followed by wood 12%, electrification and plastering 8%, flooring and sanitary, 8% painting, 7% and miscellaneous was 5%. For houses of 1000 to 1500 sq.ft. the highest cost was accounted by structure (Rs.2,62,791). For foundation, it came to Rs.1,57,675, wood, Rs.1,47,163, sanitary as well as flooring, Rs.1,05,116. Electrification cost was Rs.84,093, plastering and painting, Rs.73,581 and the miscellaneous, Rs.42,046. Thus the total

cost stood at Rs.10,51,166. The percentage-wise analysis showed that the highest cost element was that of structure (25%), foundation, 15%, wood 14% and sanitary and flooring 10% each. Electrification cost stood at 8% while plastering and painting, 7% and miscellaneous 4%.

For houses of 1500 to 2000 sq.ft., the cost of structure was the highest (Rs.3,76,390). Cost of wood accounted Rs.2,66,609 while the cost of foundation, Rs.1,88,195. The cost of flooring was Rs.1,72,512 and for sanitary, Rs.1,56,829. Electrification and painting accounted Rs.1,25,463 while plastering and miscellaneous amounted to Rs.1,09,780 and Rs.47,048 respectively. The total cost stood at Rs.1568289.

The percentage-wise break-up shows that the cost of structure was the highest (25%). This was followed by wood (17%), flooring (11%), then foundation and sanitary (10%). Painting and electrification accounted 8% each, plastering, 7% and followed by miscellaneous 3%.

With regard to houses of 2000 sq.ft. and above cost of structure accounted Rs.6,10,617, wood, Rs.5,30,971, foundation and flooring, Rs.3,18,582, sanitary, Rs.2,12,388, painting, Rs.2,65,485, plastering Rs.1,32,742 and electricity, Rs.1,85,840. This was followed by miscellaneous (Rs.79,466). All these made up a total cost of Rs.26,54,857. The percentage-wise break-up shows that the highest cost elements related to structure (23%), wood (20%) foundation and flooring (12%) each, painting (10%), electrification (7%), plastering (8%), flooring (5%) and miscellaneous (3%) in that order.

A glaring feature in house construction was the increase in cost of wood which almost doubled. This is true in the case of houses below 1000 sq.ft. and 2000 sq.ft and above. The highest cost element in the case of every size of houses was cost of structure. This followed by cost

of foundation and wood. Rest of the cost elements did not show any considerable change.

3.21 LOCATION-WISE BREAK-UP OF TOTAL COST

Table 3.28(a) shows the break-up of total cost vis-à-vis the location. While the average cost of building was Rs.10,64,507 in Panchayath, it was Rs.12,46,040 in Municipality and Rs.13,86,100 in Corporation. The cost of construction was the highest in the Corporation area this is followed by Municipality and Panchayath areas. Percentage-wise analysis of cost elements across Corporation, Municipality and Panchayath shows that highest percentage of cost was accounted by structure, which accounted nearly 25% of the total cost. The second biggest cost element was that of wood. It accounted roughly 15.3% in Corporation area, 14.93% in Municipal and 14.37% in Panchayath area. The cost of foundation was more in Panchayath (14.28%) whereas it was 13.92% in Corporation and Municipal areas. Flooring expenses has no location effect and it remained at 10% in Corporation, Municipal and Panchayath areas. Sanitary expenses also did not have any location impact. It remained at 10% in all locations. It is interesting to see that plastering cost had location effect, it accounted 6.82% in Corporation area 7.06% in Municipal and 7.15% in Panchayath area. Electrification expenses remained around 8% and miscellaneous at 4% in all locations.

The cost of various elements of house construction with regard to the location is analysed by using the ANOVA Table 3.28(b). As per this table the p-value of the location-wise costs are as follows: (1) foundation = 0.041, (2) structure = 0.021, (3) wood = 0.013, (4) electrification = 0.017, (5) sanitary = 0.017, (6) plastering = 0.022, (7) flooring = 0.017, (8) painting = 0.020 and (9) miscellaneous = 0.092. As per the ANOVA table the p-value is less than 0.05 for all the items except for cost of miscellaneous.

Location wise differences in the mean value of cost were statistically examined using one-way ANOVA test. Suppose we have made a null hypothesis under one way analysis of variance as there are no differences in the mean values of cost among different locations. If the null hypothesis is not true, there is difference between each location. Analysis of variance test results show that there are differences in the mean values of cost except for cost of miscellaneous items ($p < 0.05$, for miscellaneous $p > 0.05$) across locations. Hence it is concluded that there are location-wise differences in element-wise break-up of total cost. (Refer Table 3.28(c)).

3.22 VALUE OF ASSET HOLDING BEFORE AND AFTER CONSTRUCTION

Area of Land Owned

Table 3.29 shows that there were of 203 respondents (67%) who owned 10 to 25 cents of land and 58 respondents (19.3%) who owned below 10 cents of land. 17 respondents (5.57%) owned land between 25 to 50 cents and 22 respondents (7.3%) who owned land above 50 cents.

Asset Holding Before and After Construction

The Table 3.30(a) shows the ownership of land and the asset holding of respondents before construction of their houses. It also presents information regarding total cost of house building and the price expected if they sell their assets. It shows that those who were holding less than 10 cents of land had an average asset holding of Rs.5,43,126 before constructing their houses and the average total cost of construction of a house was Rs.7,31,638. The expected price of the house if the owner wants to sell it is only Rs.10,86,638. In the case of those who were holding 10 to 25 cents of land before construction of the house its average value was Rs.7,10,241. The total cost of house building was Rs.12,91,576. But the price expected on sale is

Rs.2049508. For those who were holding 25 to 50 cents of land asset holding before construction of their houses the average value of land was Rs.1190000 and the average cost of construction of their houses was Rs.13,48,412. But the expected value on sales is Rs.38,82,352. For those who were holding above 50 cents of land, their asset value before construction of their houses was Rs.13,03,990. The average cost of construction of the house was Rs.11,83,500.

After the construction of the houses the value of assets of those having above 50 cents of land increased to Rs.50,44,349. But majority of the respondents (203) had only land holding between 10 to 25 cents. In their case the asset value after construction of houses came to only just above Rs.20,00,000. This was only marginally higher than the value of assets before construction of houses. 58 respondents had only less than 10 cents of land before construction of their houses. After construction of houses their asset value came to Rs.6,35,124 which was slightly higher than their asset value before construction of houses. 17 respondents had 25 to 50 cents of land. Their asset position reached Rs.38,82,353 after construction of houses. This is some what Rs.14 lakhs above their original asset position. 22 respondents had more than 50 cents of land and their asset position increased maximum. But this appreciation in asset value was due to appreciation in land value rather than appreciation of the building in the property.

The year-wise analysis of variance test done by using ANOVA table (Refer ANOVA Table 3.30(b)) also show that there are differences in the mean values of asset holding before construction, total cost of construction and the expected price across different sizes of land owned. The significance value is nil in all the three cases.

3.23 YEAR-WISE ANALYSIS OF ASSET HOLDING BEFORE AND AFTER CONSTRUCTION

An year-wise analysis of the value of asset holdings before and after construction is made with the help of Table 3.31(a).

Before construction of houses the mean value of asset of those who owned less than 10 cents of land in 2001 was Rs.1,80,000. Similarly the mean value of total cost of construction of houses was Rs.6,26,000. The mean value of the expected sale price of their assets was Rs.18,40,000. In the case of house owners who owned land in between 10 and 25 cents the average value of their asset holding before construction of houses was Rs.5,26,572 and mean of house building cost was Rs.8,89,345. Their expected sale value is Rs.20,17,241. Respondents who owned land in between 25 to 50 cents, the average value of their asset holding before construction of house was Rs.8,00,000 and the mean of house building cost was also Rs.8,00,000 and their expected sale value is only Rs.20,00,000. In the case of house owners who owned land above 50 cents, the average value of their asset holding before construction of house was Rs.29,59,448 and the mean of house building cost was Rs.8,68,750. Their expected sale value is Rs.1,05,00,000.

Before construction of houses the mean value of assets of those who owned less than 10 cents of land in 2002 was Rs.6,33,898 and the mean value of total construction was Rs.6,75,882. The mean value of the expected sale price of their assets was Rs.9,58,824. In the case of house owners who own land in between 10 and 25 cents the average value of their asset holding before the construction was 8,47,573 and the mean of house building cost was Rs.11,39,956. Their expected sale value is Rs.18,67,778. In the case of house owners who owned the land in between 25 to 50 cents the average value of their asset holding before construction of house was Rs.16,40,000 and the mean of house building cost was Rs.9,50,600. Their expected sale value is

Rs.46,00,000. Of the respondents who owned land above 50 cents the average value of their asset holding before the construction was Rs.11,35,714 and the mean of house building cost was Rs.11,30,285. Their expected sale value is Rs.29,57,143.

The value of asset holding before construction in the case of those who constructed houses in less than 10 cents of land in 2003 was Rs.7,26,675. The average total cost of construction was Rs.6,68,235. Their expected sale value is Rs.10,20,588. In the case of house owners who owned land in between 10 and 25 cents the average value of their asset holding before construction of houses was Rs.7,27,352 and the mean of house building cost was Rs.13,08,825. Their expected sale value is only Rs.19,68,750. Respondents who owned land in between 25 to 50 cents their average value of asset holding before construction was Rs.9,50,000 and the mean of house building cost was Rs.13,90,000 and they expect an average sale value Rs.31,00,000. Of the respondents who owned land above 50 cents the average value of their asset holding before construction of houses was Rs.11,16,667 and the mean of house building cost was Rs.11,33,333. Their expected sale value is Rs.30,33,333.

The mean value of asset holding before construction in the case of those who constructed houses in less than 10 cents of land in 2004 was Rs.2,86,948. The average total cost of house building then was Rs.6,87,500. But their expected sale value is only Rs.9,25,000. In the case of house owners who owned land in between 10 and 25 cents the average value of asset holding before construction of house building was Rs.6,40,329. The average total cost of house building in their case was Rs.13,48,556. But their expected sales value is only Rs.20,83,333. Similarly, in the case of house owners who owned land in between 25 and 50 cents, the average value of asset holding before house construction Rs.12,33,333. The average total cost of their house was Rs.85,66,67 They expect a bigger sales value of Rs.41,66,667. For the

house owners who have more than 50 cents of land the average value of asset holding before house construction was Rs.12,50,000 and the average total cost of house building was Rs.19,50,000 and their expected sale value is Rs.60,00,000.

In the case of house owners who owned less than 10 cents of land and constructed houses in the year 2005, the average value of asset holding before construction was Rs.4,21,585. The average total cost of house building was Rs.9,13,667. The sale value expected in the case of these assets is Rs.10,98,333. Similarly, house owners who owned land in between 10 and 25 cents, the average value of asset holding before house construction was Rs.7,28,711. The average total cost of houses built was Rs.15,88,679. Their expected average sales value is Rs.22,59,434. For house owners who owned land in between 25 and 50 cents the average value of asset holding before house construction was Rs.11,66,667. The total cost of house building in this case was Rs.26,16,667. Their expected average sales value is Rs.43,33,333. Those who owned more than 50 cents of land the average value of asset holding before construction was Rs.5,08,333. The average total cost of house building was Rs.12,25,000. But their expected sales value is only Rs.19,00,000.

An year-wise analysis of the variance is done by using ANOVA Table 3.31(b). But the year-wise analysis of variance test results show that there are year-wise differences in the mean values of total cost of construction only and for the other two variables the difference is statistically not significant. However, it may be concluded that the asset value with regard to the cost of building has not increased and the increase is visible only with regard to the value appreciation of land.

3.24 ANNUAL MAINTENANCE COST

An attempt is made to see whether there is any association between annual maintenance cost and the size of house. The

Table 3.32 shows that the size of the house and its maintenance cost has positive relationship. It may be noted that majority of the respondents, (127 - 42.3%) had spent below Rs.7,500 towards maintenance cost irrespective of the size of the house building, 92 people (30.7%) had spent less than Rs.10,000 and 15 people (5%), above Rs.10,000. 66 respondents (22%), spent only below Rs.5,000 for that purpose. It may be noted that as the size of a house increased the amount spent on maintenance also increased. Of the 162 respondents whose building size is 1000 to 1500 sq.ft. 43 respondents (26.5%), spent less than Rs.5,000 towards maintenance cost, 61 respondents (37.7%), below Rs.7,500; 53 respondents (32.7%), below Rs.10,000 and 5 respondents (3.1%), above Rs.10,000. Of the 76 respondents whose house building is in the size of 1500 to 2000 sq.ft. seven respondents (9.2%) spent less than Rs.5,000 for its maintenance, 26 respondents (34.2%), below Rs.7,500; 35 respondents (46.1%), below Rs.10,000 and eight respondents (10.5%) above Rs.10,000. Of the 14 respondents constructed houses of more than 2000 sq.ft. one respondent (7.1%) spent less than Rs.5,000 towards maintenance cost, seven respondents (50%) below Rs.7,500; four respondents (20.6%), below Rs.10,000 and two respondents (14.3%) spent above Rs.10,000.

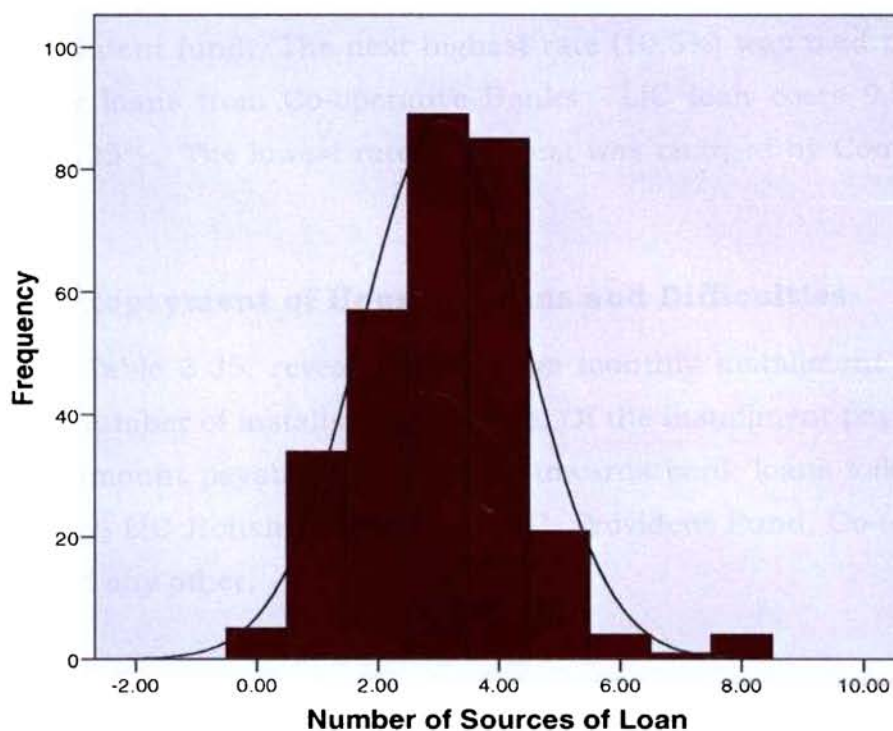
As per Table 3.32, of the 48 respondents constructed houses below 1000 sq.ft., the annual maintenance cost of 15 respondents (31.3%) was below Rs.5,000 and for 33 respondents (68.8%), it was below Rs.7,500.

The association between size of house and its annual maintenance cost is tested statistically by using chi-square. Since the significance level of likelihood ratio is less than 0.05, it is concluded that there is statically significant association between the annual maintenance cost and the size of the house. (Refer Table 3.32(b)).

3.25 HOUSING FINANCE

3.25.1 Sources of Finance

The Table 3.33 shows that 295 respondents had taken loans from various sources. 89 respondents had taken (29.7%) loans from three different sources and 85 (28.3%), from four sources. Four (1.3%) respondents had taken eight loans (which is the highest) and 34 (11.3%), only one loan. 57 respondents (19%) had taken two loans while 21 respondents (7%) five loans. Four people (1.3%) had taken six loans and one person (0.3%), seven loans. This makes average number of loans per person as four.



The above said table graphically presented the diagram above. On the X-axis number of sources of loans are plotted and on Y-axis the frequency of the loans are plotted. It can be seen from the diagram that one could get a normal curve (bell shaped curve) which shows that a number of loans increased in the earlier stages and then started decreasing as the number of loans increasing. Hence looking at the diagram itself one can easily conclude that the average number of loans

availed is between three and four. This is what is also showed in the Table.

Table 3.34 shows the average amount of loan taken from various sources and since many have taken more than one loan the number of loans are much above the number of respondents viz. 300. As per the table maximum number of loans was availed from banks (183). The next source is provident fund (162), the third major source is friends and relatives (114). It is striking to note that 15 people had gone to money lenders for loan. Sale of gold (147) and sale of land (84) formed the other major sources of financing housing loan.

The highest interest of (11%) was lost by those who took loan from provident fund. The next highest rate (10.5%) was paid by those who took loans from Co-operative Banks. LIC loan costs 9.5% and HDFC, 9.25%. The lowest rate of interest was charged by Commercial Banks.

3.25.2 Repayment of Housing Loans and Difficulties

In Table 3.35, reveals the average monthly installment payable and the number of installments payable. Of the installment payable the highest amount payable per month is towards bank loans followed by LIC Policy, LIC Housing Finance, HDFC, Provident Fund, Co-operative Bank and any other.

The banks provide maximum period for the repayment of loans (183) installments; the next comes Provident Fund (162). Co-operative Bank give 75 installments and LIC and HDFC 60 installments. The least number of installments is LIC Policy.

As per Table 3.36, 119 (39.7%) respondents paid less than Rs.5,000 as installment while 115 (38.3%) paid Rs.5000 to Rs.10,000 as installment amount. 49 respondents (16.3%) paid Rs.10,000 to

15,000 while 6 respondents paid more than Rs.15,000 as installment amount.

Total installment payable and monthly income of the respondents are shown in Table 3.37. Here the monthly income is divided into six category and installment amount into five categories. Of the respondents whose monthly income was less than Rs.10,000; 25 (69.4%) had to pay less than Rs.5,000 as installment amount while 10 (27.8%), had to pay between Rs.5,000 and Rs.10,000 as installment amount. One respondent (2.8%) had to pay an installment amount in between Rs.10,000 and Rs.15,000. Nobody in this group had installment amount more than Rs.15,000. Among the respondents whose monthly income ranged from Rs.10,000 to Rs.20,000, 43 (48.9%) had to pay less than Rs.5,000 as installment while 36 (40.9%), installment amount ranging from Rs.5,000 to Rs.10,000 and 5 (5.7%), an installment amount of Rs.10,000 to Rs.15,000. Among the respondents whose monthly income ranged from Rs.20,000 to Rs.30,000, 20 (40.6%) had to pay an installment amount ranging from Rs.5,000 to Rs.10,000 while 18 (38.3%) had to pay less than Rs.5,000. Seven respondents (14.9%) had to pay Rs.10,000 to Rs.15,000 while two (2.4%) had to pay more than Rs.15,000 as installment amount. Among the respondents whose monthly income ranged from Rs.30,000 to Rs.40,000, 28 (38.4%) had to pay Rs.5,000 to Rs.10,000. 21 (21.8%) had to pay Rs.10,000 to Rs.20,000 as installment amount while 17 (23.3%) had to pay only less than Rs.5,000 as installment amount. Three respondents had to pay more than Rs.15,000 as installment amount. Of the respondents whose monthly income ranging from Rs.40,000 to Rs.50,000, 12 (44.4%) had to pay Rs.10,000 to Rs.15,000 and 8 (29.6%), Rs.10,000 to Rs.15,000 as installment amount. But six (22.6%) had to pay only less than Rs.5,000. Of the respondents whose monthly income was more than Rs.50,000; 10 (34.5%), had to pay only less than Rs.5,000 while nine (31.0%) had to pay Rs.5,000 to

Rs.10,000. Seven respondents (24.1%) had to pay Rs.10,000 to Rs.15,000 and one respondent had to pay more than Rs.15,000.

Here the association between the total monthly income and the installment payable is tested statistically by applying chi-square and the likelihood ratio is nil. Since the significance level of likelihood ratio is less than 0.05, it is concluded that there is statistically significant association between total monthly income and total installment payable. (Refer Table 3.37(a)).

3.25.3 Debt Trap due to House Construction

3.25.3.1 Debt and Regularity in Repayment

Out of the 284 respondents (Refer Table 3.38) who made installment payments towards housing loans 236 (83.1%) were regular in making their payments, whereas 48 (16.9%), were not. The analysis shows that of the respondents whose monthly income was less than Rs.10,000; 29 (85.3%) were regular in paying their debts whereas five (14.7%) were irregular. Out of the 83 respondents whose monthly income ranged between Rs.10,000 and Rs.20,000; 71 (85.5%) were regular in repaying debts and 12 (14.5%), were irregular. Of the 47 respondents whose monthly income ranged from Rs.20,000 to Rs.30,000; 36 (76.6%), were making prompt payments whereas 11 (23.4%) were irregular in repaying the debts. Of the 25 whose monthly income ranged between Rs.40,000 and Rs.50,000; 23 (92%), were regular in repaying the debts whereas two (8%) were irregular. There were 28 persons whose monthly income was above Rs.50,000 and 27 of them (96.4%) were regular in installment repayment and only one (3.6%) was irregular.

Here the association between total monthly income and regularity in repaying housing loan is tested statistically by applying chi-square and the two-sided likelihood ratio 0.043. Since the significance level of

the chi-square test is less than 0.05, it is concluded that there is statistically significant association between the total monthly income and the habit of repayment of debt by the respondents. (Refer Table 3.38(b)).

Of the 48 respondents who revealed that they were irregular in repaying the debts, 17 respondents were having monthly income between Rs.30,000 and Rs.40,000; 12 with monthly income between Rs.10,000 and Rs.20,000; 11 with monthly income between Rs.20,000 and Rs.30,000; 5 with monthly income less than Rs.10,000. One respondent with a monthly income above Rs.50,000 was also not regular.

The analysis reveals that the majority of the respondents whether they belong to high or low income group are regular in making repayments. But some respondents are not very regular even when they can afford the payment.

3.25.4 Reasons for Default

The Table 3.39 presents the reasons for default in repayment of housing loans by the respondents. The table also shows the multiple responses of the respondents for the default. Of the 58 respondents who defaulted 33 (56.9%) had revealed that difficulties in meeting the day-to-day expenses was the major reason for default. 17 respondents (29.3%) revealed that contingencies in their families in the reason for default. Six respondents (10.3%) said that obligation regarding other loans as the reason for the default two respondents (2.44%) presented other reasons for the default in the payment. Multiple response analysis shows that the most frequent reason for defaults is difficulties in meeting day to day expenses.

3.25.5 Management of Crisis

Of the 224 borrowers, who were facing crisis in finance management, 38 have raised fresh loans from banks or non-banking financial institutions to meet contingencies, 107 respondents resorted to personal borrowings, 52 persons have taken PF loan, 18 sold their assets and the remaining nine used their matured investments to meet the contingencies. (Refer Table 3.40)

As per Multiple Response Analysis the most frequent solution for meeting contingencies was personal borrowings. 47.8% of the borrowers were resorting to personal borrowings to cope with the financial crisis. (Refer Table 3.40)

It is pertinent to note that 224 respondents were facing some crisis situation. But the crisis is try to overcome by resorting to further loans. This complicates the situation. The actual cost of construction surpassing the estimated cost often leads to the above situation.

3.25.6 Savings Within and After One Year of Construction

An individual item which gets affected most through house construction is the savings of the individuals. Everybody starts the construction with a certain amount of savings plus the borrowed fund. It is expected that one will be back to original position after the house construction. This can happen only if there is no cost overrun but cost overrun often happens. So it takes considerable long period to have any savings. Change in savings within and after one year of constructing the house was examined through cross tabulation Table 3.41. This table reveals the following:

There were 12 respondents whose savings increased after one year of construction. Out of these 12, 5 respondents had revealed that their savings increased after one year, one respondent revealed that his savings decreased, while two respondents revealed that there was no

change in their savings as compared to the previous year and the remaining four respondents revealed that they had no savings.

Financial position of 149 (49.7%) respondents deteriorated and their savings decreased within one year of house construction. 61 respondents revealed that their savings were increasing after one year, while 39 revealed that their savings were decreasing. 25 respondents stated that there was no change in their savings as compared to the previous year and the remaining 24 had no savings after one year.

With regard to the financial position within one year of house construction 48 respondents revealed that there was no change in their savings. Of these 18 respondents revealed that there were no change in their savings. But 12 respondents said that their savings were increasing after one year of house construction. Another 12 had said that they had no savings and the remaining six revealed that their savings were decreasing after one year of house construction.

Ninety one respondents remained without any saving within one year of house construction. Of these 75, (64 no savings + 11 no change) respondents had no savings even after one year. It is worth noting that more than 80% from this category was without any savings even after one year of house construction. From the remaining of this category eight persons revealed that their savings were increasing and the remaining eight had said that their savings were decreasing after one year of house construction.

The analysis clearly reveals that more than 50% of the total respondents were either with no savings or their savings were decreasing after one year of their house construction. Only 29% had revealed that their savings were increasing after one year of their house construction.

The association between the change in savings within and after one year of constructing houses was statistically examined using chi-square test. Since significance level of likelihood ratio is less than 0.05 (here the p-value is 0.000), there is clear association between the savings level within and after one year and it is significant. Therefore it is concluded that financial position of the house owners after one year of construction had not improved at all. (Refer Table 3.41(b)).

3.25.7 Debt Within and After One Year of Construction

Usually people expect the debt to come down as soon as the house construction is over because all the activities had come to a standstill. But the truth is far away from reality. The respondent is left with no savings and his income is not enough to service the debts. Naturally, one is forced to go for more debts to compensate to service the debts. This may go upto in extreme cases landing up with money lenders. It is not very rare to come across people who have sold their houses as they cannot service their debts. The first sign of such a tragic event is that your debts are not decreasing or is increasing even after the house construction. As per Table 3.42(a), out of the 300 respondents 84 (20%) had said that the debts are increasing and 74 (24.7) had said there is no change in their debts and 140 had said there is a decrease in their debts. If we add the no change in debts respondents and increasing debts respondents we get more than 50% of the respondents having problems with debts. It is heard that misery begets misery and now one can come across debt begets debt. (Refer Table 3.42(b)).

Another analysis made in relation to this aspect is the time taken to balance the home budget. Out of the 300 respondents 25 (8.3%) respondents revealed that their home budget balanced within one year of house construction. 146 respondents (48.7%) revealed that they took two years to balance their home budget after house construction,

53 took three years (17.6%), 41 (13.7%), four years, 24 (8%), five years and three respondents (1%) took six years. Of the 300 respondents eight respondents (2.7%) revealed that their home budget is not balanced even after six years of construction. (Refer Table 3.42(c)).

3.25.8 Debt Trap and Monthly Income

As per Table 3.43, 105 (35%) respondents out of 300 had a feeling that they are in debt trap due to house construction. Of these 105 respondents, 18 had total monthly income less than Rs.10,000; 39, had a total monthly income between Rs.10,000 and Rs.20,000. 16, with a total monthly income between Rs.20,000 and Rs.30,000; 21, with a total income ranging from Rs.30,000 to Rs.40,000; 4, with income between Rs.40,000 to Rs.50,000 and seven above Rs.50,000 had said they are in debt trap. It may be concluded that since the significance level of the test is less than 0.05 there is statistically significant association between total monthly income and debt. It may also be noted that an analysis on the basis of monthly income shows that those who had income below Rs.10,000; 50% have said they are in debt trap and among those who have income ranging from Rs.10,000 to Rs.20,000; 44% have said that they are in debt trap. In the case of Rs.20,000 to Rs.30,000 income group, 34 % have said that they are in debt trap. Similarly, 21 respondents (28.8%) whose income ranged from Rs.30,000 to Rs.40,000 said that they are in debt trap. Four respondents (14.8%) who belongs to the income group of Rs.40,000 to Rs.50,000 have said that they are in debt trap and seven respondents (24.1%) whose income is above Rs.50,000 have said they are in debt trap. It is interesting to note that people who are in debt trap was systematically getting reduced as the income increased except in the case of those whose income is above Rs.50,000.

3.25.9 Debt Trap and Total Installment Payable

Analysis of the opinions of the respondents on debt trap is cross tabulated with the amount of the installment payable in Table 3.44. The Table shows that 56 out of 105 respondents who said they are in debt trap have installment amount less than Rs.5,000. 32 respondents who have to pay installment amount between Rs.5,000 and Rs.10,000, 16, who had to pay installment of Rs.10,000 to Rs.15,000 and one person who had to pay more than Rs.15,000 as the installment said that they are in debt trap. There are 195 respondents who are in debt trap, of these 63 respondents had to pay less than Rs.5,000 as installment. Similarly, 83 respondents whose installment amount ranged from Rs.5,000 to Rs.10,000, 33 respondents whose installment amount ranged between Rs.10,000 and Rs.15,000 were not in debt trap.

Since the significance level of the test is less than 0.05, it can be concluded that there is a statistically significant association between the installment payable and debt trap. It may be observed again that the number of people who said that they are in debt trap is in the dissenting order as the installment amount increased. This is also pointing at the fact that the debt trap is visible in the lower income group. (Refer Table 3.44(a)).

3.25.10 Income Tax Benefit

Income tax benefit availed by the respondents are shown in the Table 3.45. It may be noted that out of the 300 respondents, 98 (32.7%) had enjoyed tax benefits below Rs.5,000, while 47 (15.7%), had benefited Rs.10,000 to Rs.15,000, 26 (8.7%), benefited Rs.5,000 to Rs.10,000. There were only nine people (3%) who got more than Rs.20,000 tax benefit and seven (2.3%), had benefit between Rs.15,000 and Rs.20,000. It may be noted that 130 people did not responded to

this question as they did not get any income tax benefit due to house construction.

3.25.11 Satisfaction Levels of House Owners

The satisfaction level of house owners with regard to the house construction is measured on various aspects and they are:

1. Feeling of house constructed as a good investment
2. Component-wise waste in house construction
3. Satisfaction with regard to utility
4. Readiness to construct same house
5. Proposed changes in mind

3.25.11.1 Feeling of House Constructed as a Good Investment

Among the 300 respondents 232 (77.3%) hold the opinion that house construction is a good investment. 49 respondents (16.3%) said they do not consider that house construction is not a good investment. While 19 respondents (6.3%) said they were not sure whether it is a good investment or not (Refer Table 3.46(a)).

Whether the investment made in the present house is a waste to some extent, 248 respondents (82.7%) said that they did not consider the investment in the present house a waste to any extent while 52 persons (17.3%) agreed that there is some waste in the present house construction. (Refer Table 3.46(b)).

3.25.11.2 Component-wise waste in house construction

A deeper analysis was done on the waste aspect in house construction so as to avoid wasteful expenditure if any. The respondents were told to identify component that they consider as waste. Of the 52 respondents (Refer Table No 3.47) who thought that

there are wastes in certain components. Majority identified ornamentation to houses as a waste. While 14 respondents identified expenditure on beautification of toilets as a waste. Six identified magnification of houses as waste. The same number opined that using high quality material for flooring as a waste. Two respondents each have identified using ornamental electrical components, beautification of kitchen and use of high priced wood as waste.

3.25.11.3 Satisfaction with regard to utility

To the question whether the owners are satisfied with utility of the house 233 (77.7%) revealed that they are satisfied with the utility of the houses they have constructed. But 59 respondents (19.7%) were of the opinion that they are only somewhat satisfied with their houses and 8 respondents (2.7%) categorically stated that they are dis-satisfied with the houses they have constructed with regard to utility. (Table 3.48)

3.25.11.4 Readiness to construct same house

The Table 3.49 shows the depth of liking of the respondents with respect to the houses they have constructed. To the question whether the respondent will construct a house like one he has constructed if he gets a chance to construct one more house. 160 respondents (53.3%) said no while 140 (46.7%) said yes.

3.25.11.5 Proposed changes in mind

With regard to the readiness to construct a same house as shown in Table 3.50(a), of 160 respondents who said no, 102 (34%) have classified that they will reduce the size of the house while 58 (19.3%), said they will increase the size.

With regard to the functional aspect, 157 of the 160 respondents revealed that they will increase the functional utility of their houses and the rest said that they will decrease the functional utility. (Refer Table No 3.50(b)).

With regard to the ornamentation, (Table 3.50(c)) 125 of the 160 respondents stated that they will decrease the ornamentation while 35, revealed that they will increase the ornamentation.

With regard to the quality of material used 135 of 160 stated that they will improve the quality while 25 said they will reduce the quality. (Refer Table 3.50(d)).

With regard to the question regarding location change 104 out of 160, revealed that there is no need to change the location while 56 felt that it is required. (Refer Table 3.50(e)).

3.25.12 Financing Schemes

In response to the question relating to the financing scheme, in case they go for another house, 249 respondents (83%) revealed they would prefer the same financing scheme while 51 respondents (17%) preferred some change in the financing scheme. Preferences for other schemes relate to easy availability, easy installment etc. (Table 3.51).

3.25.13 Calculation of Interest

One hundred and sixty two of the 300 respondents (54%) said that they had calculated the interest on the investment while 138 (46%) revealed that they did not calculate the interest on the investment made in the house construction. (Refer Table 3.52(a))

Out of the 300 respondents, 197 (65.7%) conveyed that they did not calculate the loss due to delay in completion while 103 (34.3%) said that they did calculate the loss due to delay in completion. (Refer Table 3.52(b)).

3.25.14 Preference for Low Cost Housing and Cost Reduction Method

To the question whether the respondents preferred low cost house or not 157 (52.3%) out of the 300 respondents said yes while the rest said no. (Refer Table 3.53).

3.25.15 Ways to Reduce Cost of Construction

With respect to different ways of reducing cost of construction seven alternatives were given and the multiple responses of the respondents in this aspect is shown in the Table 3.54. The total responses comes to 493 out of which the maximum responses, 120 (24.3%) favoured reduction in the size of the building as a method to reduce costs. 114 (23.1%) responses related to reducing in the cost of wood and 87 (17.6%) responses, reducing the cost of ornamentation, 59 responses (12%), reducing the cost of flooring 43 responses (8.7%), reducing the cost of electric and plumbing works, 40 responses (8.1%), reducing the cost of kitchen, and 30 responses (6.1%), reducing the cost of toilets. From the responses of the respondents, it can be safely concluded that they are aware of the areas where they could reduce cost in constructing houses, even though they are not really practicing.

3.25.16 Reasons for not Constructing a Low Cost House

To the question why the respondents did not go for low cost houses, only 33 respondents (11%) answered this question. Of the 33, 9 respondents stated that they did not go for low it due to lack of social acceptance for such houses (Table 3.55). Six respondents have revealed that they did not construct the low cost houses as their family

members were against that. Two respondents revealed that it was due to the mosquitoes and pests etc. One respondent accepted it was a mistake not to have constructed a low cost house. Two respondents have revealed that they did not get proper advice with respect to low cost house. Four respondents revealed that it is due to the effect of globalisation and MNCs and another four revealed psychological reasons. Two respondents has said that it is due to the high humidity inside during rainy season. There were three positive answers also. Table 3.55(b) lists the reasons for not preferring low cost houses.

One thing obvious from the answers given by the respondents and that is there is some kind of social stigma attached to low cost housing. The social stigma arises out of the impression that low cost houses are built by poor people. The resistance of the family members arises out of the feeling that their social acceptance level will go down. But an enquiry with people who had constructed low cost houses will reveal the fact that they have constructed low cost houses taking into consideration factors like beauty, ventilation and functional utility.

Lack of awareness or lack of proper advice with respect to construction of low cost houses points fingers to institutions like Costford, Nirmithi Kendra etc. They failed in taking the message of low cost housing to ordinary people. It is sure that if the message is properly propagated and proper advice is given more people will go for low cost construction.

3.25.17 Reasons for Constructing than Buying

Respondents were asked to give the reasons for constructing the house rather than buying and only 29 (less than 10%) are responded. A multiple response analysis was done with regard to this aspect. Two responses came very prominent out of that (Refer Table 3.56(a)). They relate to (1) location advantage; (2) own choice for plan and design; other reasons assigned were ancestral property (11), ensuring quality of

work (6), nearness to various public facilities like school, workplace, city, transportation facility etc. (5), nearness to family circle (4) and mental satisfaction (2). One person has categorically said that he did not buy a house because he wanted to construct a low cost house. (Refer Table 3.56(b)).

3.25.18 Future Preference for Low Cost House

As per Table 3.57 out of the 300 respondents 157 (52.3%) has said they would to prefer to construct a low cost house in the future while 143 (47.7%) said that they will not construct a low cost house even in the future (Refer Table 3.57).

3.25.19 Satisfaction with the Present House on Specific Aspects

The Table 3.58 shows the responses with regard to eight specific aspects put forward which are considered as important in assessing the satisfaction of the present house. It can be seen from the responses that 297 (99%) are happy with respect to proximity to public conveyance (road) and 293 (97.4%) with respect to proximity to the school, while 288 (96%) with respect to proximity to the market and 267 (89%) with respect to proximity to the hospitals. 233 (77.7%) were satisfied with regard to proximity to the place of worship, 197 (65.7%) with respect to proximity to the place of entertainment and 180 (60%) with respect to the proximity to the railway station and 82 (27.3%) with respect to the proximity to the airport.

3.25.20 Negative Feelings in Constructing the House

An attempt was made to see whether there is any negative feeling in constructing a house than buying. Four opinions were expressed in this matter (Refer Table 3.59). They are:

- (1) it creates lot of tension;

(2) it requires some knowledge about construction,

(3) it overshoots estimates and

(4) it is difficult to co-ordinate the workers.

Among the four, 31.9% (the highest percentage) relate to tension while 25.3% relate to lack of knowledge about construction, 22.7% relate to overshooting of estimates and 20.2% relate to difficulty in co-ordinating the workers.

3.25.21 Income from Investment in House Construction

As per Table 3.60(a), out of the 300 respondents 275 (91.7%) revealed that they had no income from the newly constructed houses while 25 (8.3%) said they have.

Table 3.60(b) shows that the source of income relate to accommodating paying guest (11), renting out (7), own business (5), and others (2).

With regard to the extra income generated per month shown in Table 3.60(c), 15 respondents revealed that they have generated income between Rs.2,500 to Rs.5,000 while six respondents generated less than Rs.2,500, two respondents generated Rs.5,000 to Rs.7,500 while the other two generated income ranging from Rs.7,500 to Rs.10,000.

3.25.22 Size of the Rented House and Rent Paid

This analysis is important because many a time those who construct houses after staying in a rented house never realize the symptom possibility of earning rent from the new house they are building. The rent paid before the house construction is used to ascertain the cost of capital and to work backwards the amount that should be invested in own house. For example, the house is available at Rs.5,000 and the interest is 10%, one could calculate the volume of

investment that could be made in the house. It is worked out as rent multiplied by inverse of the bank rate ($5000 \times 100 / 9$). This has to be multiplied by 12 to get the total investment. In this case it is Rs.6,00,000. Here the question is whether one constructs one's own house or stay in a rented house.

From the Table 3.61(a) it can be seen that there were 13 respondents who stayed in rented houses of the size less than 1000 sq.ft. Nobody had paid a rent more than Rs.3,000 per month. Out of the 13, eight respondents were paying rent in between Rs.1,500 and Rs.3,000 per month and the remaining five persons used to pay less than Rs.1,500 as rent.

There were 31 respondents who stayed in rented houses of the size ranging 1000 sq.ft. to 1500 sq.ft. Out of this 31; 23 persons (nearly 75%) used to pay rent in between Rs.1,500 and Rs.3,000, five respondents, rent in between Rs.3,000 and Rs.5,000, one, rent above Rs.5,000 and the remaining two, less than Rs.1,500 per month.

There were six respondents who stayed in rented houses of size ranging from 1500 to 2000 sq.ft. before construction of their own houses. Out of these, four persons were paying rent in between Rs.3,000 and Rs.5,000 and the remaining two, in between Rs.1,500 and Rs.3,000. There were two respondents who stayed in the rented houses of the size above 2000 sq.ft. and out of which one respondent was paying rent in between Rs.1,500 and Rs.3,000 and other, rent above Rs.5,000.

The significance of association between size of the rented house and the rent paid was statistically tested by using chi-square test. Since the significance level of the likelihood ratio is less than 0.05 it is concluded that there is statistically significant association between the size of rented house and the rent paid (Table 3.61(b)).

3.26 CONCLUSION

In this chapter we have seen that house construction decision when worked out results in a totally uncomfortable situation for the individual as he fails or to limit the cost of construction against the estimated cost. The actual cost when cannot be contained within the estimate the individual is forced to go for more loans to finish the house construction. This upsets his whole financial balance of the individual and it takes time to get back into the position, which has planned earlier. Many a time this results in debt trap as more and more loans are taken the debt servicing charge increases to a point that even his daily life gets affected.

Chapter 3

HOUSE BUILDING AND ITS FINANCING

Table 3.1

Location-wise Distribution of House Building

Location	Frequency	Percent
Corporation	50	16.7
Municipality	100	33.3
Panchayat	150	50.0
Total	300	100.0

Table 3.2

House Building and Ownership

Ownership	Frequency	Percent
Husband	180	60.0
Wife	42	14.0
Joint	78	26.0
Total	300	100.0

Table 3.3

Educational Qualification of House Owners

Educational qualification	Husband		Wife	
	Frequency	Percent	Frequency	Percent
Undergraduate	27	9.0	58	19.3
Graduate	108	36.0	149	49.7
Postgraduate	107	35.7	62	20.7
Professional	58	19.3	31	10.3
Total	300	100.0	300	100.0

Table 3.4
Occupational Background of the Households

Occupation	Husband		Wife	
	Frequency	Percent	Frequency	Percent
Doctor	18	6.0	6	2.0
Engineer	24	8.0	13	4.3
Supervisory	93	31.0	25	8.3
Non supervisory	58	19.3	49	16.3
School teacher	28	9.3	44	14.7
College/Uni. teacher	23	7.7	14	4.7
Others	56	18.7	46	15.3
Unemployed	0	0.0	103	34.3
Total	300	100.0	300	100.0

Table 3.5 (a)
Age of House Owner and Spouse at the Time of Construction

Age	Frequency	Percent	Frequency	Percent
Below 30 years	16	5.3	43	14.3
30 to 40 years	168	56.0	204	68.0
40 to 50 years	105	35.0	50	16.7
Above 50 years	11	3.7	3	1.0
Total	300	100.0	300	100.0

Table 3.5 (b)
Households According to Year of Construction

Year	Frequency	Percent
2001	39	13.0
2002	74	24.7
2003	65	21.7
2004	45	15.0
2005	77	25.7
Total	300	100.0

Table 3.6
Households According to Type Of Family

Type	Frequency	Percent
Nuclear	265	88.3
Joint	35	11.7
Total	300	100.0

Table 3.7
House Building and Number of Occupants

Number of Occupants	Frequency	Percent
2	40	13.3
3	64	21.3
4	123	41.0
5	57	19.0
6 and above	16	5.3
Total	300	100.0

Table 3.8
Average Number of Occupants Per House

Family composition	Mean	Std. Deviation
No. of occupants per house	2.82	1.058
No. of employed members per house	1.66	.553

Table 3.9
Number of Employed Members

Number of Employed Members	Frequency	Percent
1	112	37.3
2	180	60.0
3	6	2.0
4 and above	2	.7
Total	300	100.0

Table 3.10
Family Composition

Family composition	Mean	Std. Deviation
No. of grown up members	2.31	.693
No. of growing members	1.80	.750

Table 3.11
Monthly Income From Salary and Other Sources

Income	Husband		Wife		Others		Other Sources	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Below 5000	0	.00	0	.00	0	.00	127	42.3
5000 to 7500	39	13.0	45	15.0	8	2.7	50	16.7
7500 to 10000	73	24.3	74	24.7	4	1.3	5	1.7
10000 to 15000	107	35.7	51	17.0	6	2.0	0	.00
15000 to 20000	56	18.7	23	7.7	1	.3	0	.00
20000 to 30000	25	8.3	2	.7	1	.3	0	.00
Above 30000	0	.00	2	.7	1	.3	0	.00
Total	300	100.0	197	65.7	21	7.0	182	60.7
Missin	0	.00	103	34.3	279	93.0	118	39.3
Total	300	100.0	300	100.0	300	100.0	300	100.0

Table 3.12
Total Monthly Income

Income	Frequency	Percent
Below 10,000	36	12.0
10,000 to 20,000	88	29.3
20,000 to 30,000	47	15.7
30,000 to 40,000	73	24.3
40,000 to 50,000	27	9.0
Above 50,000	29	9.7
Total	300	100.0

Table 3.13
Monthly Domestic Expenses

Income	Frequency	Percent
Below 5000	65	21.7
5000 to 10000	184	61.3
10000 to 15000	48	16.0
15000 and above	3	1.0
Total	300	100.0

Table 3.14
Residential Status Before House Construction

Stay status	Frequency	Percent
With parents	215	71.7
In quarters	33	11.0
In rented house	52	17.3
Total	300	100.0

Table 3.15
Rent Paid for Rented Houses

Rent amount	Frequency	Percent
Below Rs.1500	7	2.3
1500 to 3000	34	11.3
3000 to 5000	9	3.0
5000 and above	2	.7
NA	248	82.7
Total	300	100.0

Table 3.16
Size Of Rented House

Size in sq.ft	Frequency	Percent
Below 1000	13	4.3
1000 to 1500	31	10.3
1500 to 2000	6	2.0
2000 and above	2	.7
NA	248	82.7
Total	300	100.0

Table 3.17 (a)
Cross Tabulation of Size of Rented and Constructed House Building

Size of rented house in sq.ft	Size of house building				Total
	Below 1000 sq.ft	1000 to 1500 sq.ft	1500 to 2000 sq.ft	2000 sq.ft and above	
Below 1000	3 23.1%	8 61.5%	2 15.4%	0 .0%	13 100.0%
1000 to 1500	1 3.2%	19 61.3%	8 25.8%	3 9.7%	31 100.0%
1500 to 2000	0 .0%	1 16.7%	4 66.7%	1 16.7%	6 100.0%
2000 and above	0 .0%	1 50.0%	1 50.0%	0 .0%	2 100.0%
NA	44 17.7%	133 53.6%	61 24.6%	10 4.0%	248 100.0%
Total	48 16.0%	162 54.0%	76 25.3%	14 4.7%	300 100.0%

Table 3.17 (b)
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.845(a)	12	.156
Likelihood Ratio	18.455	12	.103
Linear-by-Linear Association	1.381	1	.240

Table 3.18 (a)
Cross Tabulation on the Size of House Building and Time
Taken for Completion

Size of house building	Time taken for completion					Total
	Less than 6 months	6 to 12 months	12 to 18 months	18 to 24 months	24 months and above	
Below 1000 sq.ft	3 6.3%	11 22.9%	17 35.4%	7 14.6%	10 20.8%	48 100.0%
1000 to 1500 sq.ft	6 3.7%	65 40.1%	48 29.6%	22 13.6%	21 13.0%	162 100.0%
1500 to 2000 sq.ft	2 2.6%	28 36.8%	23 30.3%	18 23.7%	5 6.6%	76 100.0%
Above 2000 sq.ft	0 .0%	5 35.7%	6 42.9%	2 14.3%	1 7.1%	14 100.0%
Total	11 3.7%	109 36.3%	94 31.3%	49 16.3%	37 12.3%	300 100.0%

Table 3.18 (b)
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.264(a)	12	.284
Likelihood Ratio	14.651	12	.261
Linear-by-Linear Association	1.061	1	.303
N of Valid Cases	300		

Table 3.19 (a)**Number of Occupants and Size of House Building**

No. of occupants	Size of house building				Total
	Below 1000 sq.ft	1000 to 1500 sq.ft	1500 to 2000 sq.ft	2000 sq.ft and above	
2	0	27	9	4	40
	.0%	67.5%	22.5%	10.0%	100.0%
3	9	35	17	3	64
	14.1%	54.7%	26.6%	4.7%	100.0%
4	27	63	27	6	123
	22.0%	51.2%	22.0%	4.9%	100.0%
5	8	30	18	1	57
	14.0%	52.6%	31.6%	1.8%	100.0%
6	4	7	5	0	16
	25.0%	43.8%	31.3%	.0%	100.0%
Total	48	162	76	14	300
	16.0%	54.0%	25.3%	4.7%	100.0%

Table 3.19 (b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.135(a)	12	.112
Likelihood Ratio	24.484	12	.017
Linear-by-Linear Association	2.966	1	.085

Table 3.20 (a)**Size of House Building and Number of Income Sources**

Income Sources	Size of house building				Total
	Below 1000 sq.ft	1000 to 1500 sq.ft	1500 to 2000 sq.ft	2000 sq.ft and above	
1	18	25	7	0	50
	36.0%	50.0%	14.0%	.0%	100.0%
2	21	64	23	8	116
	18.1%	55.2%	19.8%	6.9%	100.0%
3	8	68	38	4	118
	6.8%	57.6%	32.2%	3.4%	100.0%
4	1	5	8	2	16
	6.3%	31.3%	50.0%	12.5%	100.0%
Total	48	162	76	14	300
	16.0%	54.0%	25.3%	4.7%	100.0%

Table 3.20 (b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	38.090(a)	9	.000
Likelihood Ratio	38.208	9	.000
Linear-by-Linear Association	24.312	1	.000

Table 3.21 (a)
Size of House Building and Location

House-Building location	Size of house building				Total
	Below 1000 sq.ft	1000 to 1500 sq.ft	1500 to 2000 sq.ft	2000 sq.ft and above	
Corporation	1	31	13	5	50
	2.0%	62.0%	26.0%	10.0%	100.0%
Municipality	12	52	33	3	100
	12.0%	52.0%	33.0%	3.0%	100.0%
Panchayath	35	79	30	6	150
	23.3%	52.7%	20.0%	4.0%	100.0%
Total	48	162	76	14	300
	16.0%	54.0%	25.3%	4.7%	100.0%

Table 3.21 (b)
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.682(a)	6	.002
Likelihood Ratio	23.100	6	.001
Linear-by-Linear Association	11.993	1	.001

Table 3.22 (a)
Year wise Total Cost of House Building in (Rs)

Year of construction	Size of house building	Mean	N	Std. Deviation
2001	Below 1000 sq.ft	393000.00	6	147125.79
	1000 to 1500 sq.ft	799695.65	23	261861.07
	1500 to 2000 sq.ft	1180625.00	8	447855.50
	2000 sq.ft and above	1500000.00	2	707106.78
	Total	851179.49	39	415222.31
2002	Below 1000 sq.ft	530833.33	12	185249.62
	1000 to 1500 sq.ft	956847.83	46	344611.47
	1500 to 2000 sq.ft	1457142.86	14	839769.82
	2000 sq.ft and above	2334000.00	2	941866.23
	Total	1019635.14	74	584735.12
2003	Below 1000 sq.ft	589230.77	13	228271.09
	1000 to 1500 sq.ft	1043000.00	31	459907.59
	1500 to 2000 sq.ft	1573500.00	20	278705.18
	2000 sq.ft and above	2600000.00	1	
	Total	1139430.77	65	538687.75
2004	Below 1000 sq.ft	614285.71	7	291138.97
	1000 to 1500 sq.ft	1192863.64	22	1543033.32
	1500 to 2000 sq.ft	1635000.00	15	865396.27
	2000 sq.ft and above	2700000.00	1	
	Total	1283733.33	45	1244704.48
2005	Below 1000 sq.ft	625000.00	10	133853.15
	1000 to 1500 sq.ft	1232625.00	40	390674.93
	1500 to 2000 sq.ft	1755263.16	19	466337.60
	2000 sq.ft and above	3025000.00	8	462137.88
	Total	1468896.10	77	741686.65
Total	Below 1000 sq.ft	561208.33	48	207943.01
	1000 to 1500 sq.ft	1051166.67	162	672323.66
	1500 to 2000 sq.ft	1568289.47	76	617020.96
	2000 sq.ft and above	2654857.14	14	726238.66
	Total	1178616.67	300	761086.20

Table 3.22 (b)
Paired Samples Statistics

Pair	Mean	N	Std. Deviation
Total cost of house building (Rs)	1178616.67	300	761086.200
Estimated cost before the construction (Rs)	940283.33	300	543436.209

Table 3.22 (c)
Paired Samples Test

Pair	Paired Differences					t	df	Sig. (2-tailed)
	Mean Lower	Std. Deviation	Std. Error Mean	95% Confidence of the Difference Interval				
				Lower	Upper			
Total cost- Estimated cost	238333.333	546914.803	31576.141	176193.709	300472.958	7.548	299	.000

Table 3.23 (a)
Cost Overrun and Location

House-Building location	Costs	Mean	N	Std. Deviation
Corporation	Total cost	1386100.00	50	768937.30
	Estimated cost	1135800.00	50	665245.35
Municipality	Total cost	1246040.00	100	672771.09
	Estimated cost	1033550.00	100	542292.78
Panchayat	Total cost	1064506.67	150	797877.84
	Estimated cost	812933.33	150	465512.34

Table 3.23 (b)
Paired Samples Test on Location and Cost Overrun

House-Building Location		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Corporation	Total cost- Estimated cost	250300.000	237406.072	33574.289	182829.941	317770.059	7.455	49	.000
Municipality	Total cost- Estimated cost	212490.000	352499.975	35249.997	142546.357	282433.643	6.028	99	.000
Mechayath	Total cost- Estimated cost	251573.333	706025.337	57646.727	137662.640	365484.026	4.364	149	.000

Table 3.24 (a)
Cost Overrun and Income Group

Income	Costs	Mean	N	Std. Deviation
Below 10,000	Total cost	821388.89	36	474438.93
	Estimated cost	660694.44	36	439626.71
10,000 to 20,000	Total cost	1024011.36	88	871202.18
	Estimated cost	796306.82	88	414041.26
20,000 to 30,000	Total cost	1010319.15	47	510178.36
	Estimated cost	787553.19	47	371098.35
30,000 to 40,000	Total cost	1329397.26	73	685799.83
	Estimated cost	1058904.11	73	508629.86
40,000 to 50,000	Total cost	1379555.56	27	552026.22
	Estimated cost	1142592.59	27	472249.87
Above 50,000	Total cost	1797344.83	29	918970.39
	Estimated cost	1484827.59	29	832301.54

Table 3.24 (b)

Paired Samples Test based on Income and Cost Overrun

Income	Total cost and estimated cost	Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Upper	Lower			
Below 10,000	Total cost- Estimated cost	160694.444	144034.484	24005.747	111960.187	209428.702	6.694	35	.000
10,000 to 20,000	Total cost- Estimated cost	227704.545	777751.181	82908.555	62914.816	392494.275	2.746	87	.007
20,000 to 30,000	Total cost- Estimated cost	222765.957	393002.390	57325.290	107376.133	338155.782	3.886	46	.000
30,000 to 40,000	Total cost- Estimated cost	270493.151	488587.395	57184.829	156497.277	384489.024	4.730	72	.000
40,000 to 50,000	Total cost- Estimated cost	236962.963	521685.617	100398.444	30591.006	443334.920	2.360	26	.026
Above 50,000	Total cost- Estimated cost	312517.241	389209.145	72274.324	164470.000	460564.482	4.324	28	.000

Table 3.25 (a)
Cost Overrun and Size of House Building

Size of house building	Total cost and estimated cost	Mean	N	Std. Deviation	Std. Error Mean
Below 1000 sq.ft	Total cost	561208.33	48	207943.012	30013.988
	Estimated cost	451250.00	48	199236.575	28757.323
1000 to 1500 sq.ft	Total cost	1051166.67	162	672323.664	52822.736
	Estimated cost	845092.59	162	355718.358	27947.874
1500 to 2000 sq.ft	Total cost	1568289.47	76	617020.968	70777.159
	Estimated cost	1348289.47	76	570032.486	65387.211
2000 sq.ft and above	Total cost	2654857.14	14	726238.661	194095.447
	Estimated cost	1503571.43	14	946748.339	253029.137

Table 3.25 (b)**Paired Samples Test on Size and Cost Overrun**

Size of house building	Total cost and estimated cost	Paired Differences					t	df	Sig. (2-tailed)
		Mean Lower	Std. Deviation Upper	Std. Error Mean Lower Upper	95% Confidence Interval of the Difference				
					Lower	Upper			
Below 1000 sq.ft	Total cost-Estimated cost	109958.33	83845.52	12102.06	85612.11	134304.55	9.086	47	.000
1000 to 1500 sq.ft	Total cost-Estimated cost	206074.07	589811.76	46339.98	114561.48	297586.65	4.447	161	.000
1500 to 2000 sq.ft	Total cost-Estimated cost	220000.00	190320.36	21831.24	176509.93	263490.06	10.077	75	.000
2000 sq.ft and above	Total cost-Estimated cost	1151285.71	1167716.40	312085.33	477066.33	1825505.09	3.689	13	.003

Table 3.26**Reasons For Variation in Cost**

Reasons	Responses		Percent of Cases
	N	Percent	
Price escalation	194	33.5%	72.9%
Change in plan	84	14.5%	31.6%
Additional construction	84	14.5%	31.6%
Ornamentation	36	6.2%	13.5%
Delay in completion	150	25.9%	56.4%
Social pressure	23	4.0%	8.6%
Any other (Specify)	8	1.4%	3.0%
Total	579	100.0%	217.7%

Table 3.27
Size Wise Break-up of Total Cost

Size of house building	Items	Cost			Mean of 'percentage to total'
		N	Mean	Std. Deviation	
Below 1000 sq.ft	foundation	48	84181.25	31191.45	15.00
	structure	48	140302.08	51985.75	25.00
	wood	48	67345.00	24953.16	12.00
	electrification	48	44896.66	16635.44	8.00
	sanitary	48	56120.83	20794.30	10.00
	plastering	48	44896.66	16635.44	8.00
	flooring	48	56120.83	20794.30	10.00
	painting	48	39284.58	14556.01	7.00
	miscellaneous	48	28060.41	10397.15	5.00
	Total cost of house building	48	561208.33	207943.01	
1000 to 1500 sq.ft	foundation	162	157675.00	100848.54	15.00
	structure	162	262791.66	168080.91	25.00
	wood	162	147163.33	94125.31	14.00
	electrification	162	84093.33	53785.89	8.00
	sanitary	162	105116.66	67232.36	10.00
	plastering	162	73581.66	47062.65	7.00
	flooring	162	105116.66	67232.36	10.00
	painting	162	73581.66	47062.65	7.00
	miscellaneous	162	42046.66	26892.94	4.00
	Total cost of house building	162	1051166.67	672323.664	
1500 to 2000 sq.ft	foundation	76	188194.73	74042.51	12.00
	structure	76	376389.47	148085.03	24.00
	wood	76	266609.21	104893.56	17.00
	electrification	76	125463.15	49361.67	8.00
	sanitary	76	156828.94	61702.09	10.00
	plastering	76	109780.26	43191.46	7.00
	flooring	76	172511.84	67872.30	11.00
	painting	76	125463.15	49361.67	8.00
	miscellaneous	76	47048.68	18510.62	3.00
	Total cost of house building	76	1568289.47	617020.96	
2000 sq.ft and above	foundation	14	318582.85	87148.63	12.00
	structure	14	610617.14	167034.89	23.00
	wood	14	530971.42	145247.73	20.00
	electrification	14	185840.00	50836.70	7.00
	sanitary	14	212388.57	58099.09	8.00
	plastering	14	132742.85	36311.93	5.00
	flooring	14	318582.85	87148.63	12.00
	painting	14	265485.71	72623.86	10.00
	miscellaneous	14	79645.71	21787.15	3.00
	Total cost of house building	14	2654857.14	726238.66	

Table 3.28 (a)

Location Wise Break Up Of Total Cost

House-Building location	items	Cost			percentage
		N	Mean	Std. Deviation	Mean
Corporation	foundation	50	187185.00	91071.18	13.92
	structure	50	337435.00	180867.88	24.54
	wood	50	221124.00	146090.78	15.34
	electrification	50	108708.00	58950.26	7.90
	sanitary	50	134250.00	72199.14	9.80
	plastering	50	92767.00	49537.40	6.82
	flooring	50	147700.00	89136.21	10.46
	painting	50	108297.00	70179.98	7.56
	miscellaneous	50	48634.00	22774.38	3.66
	Total cost of house building	50	1386100.00	768937.30	
Municipality	foundation	100	167115.60	77454.50	13.92
	structure	100	303913.20	156794.33	24.61
	wood	100	195704.00	131798.32	14.93
	electrification	100	98683.20	50813.31	7.97
	sanitary	100	122604.00	61556.93	9.94
	plastering	100	85988.80	41164.11	7.06
	flooring	100	132200.8000	79153.18	10.39
	painting	100	95819.6000	62850.98	7.42
	miscellaneous	100	44010.8000	18833.62	3.76
	Total cost of house building	100	1246040.00	672771.09	
Panchayath	foundation	150	148508.00	110527.11	14.28
	structure	150	261319.46	193739.55	24.72
	wood	150	160948.80	134723.99	14.37
	electrification	150	84076.00	61653.85	7.96
	sanitary	150	104281.60	75679.26	9.92
	plastering	150	73598.26	51353.84	7.15
	flooring	150	111257.86	86366.99	10.28
	painting	150	80407.20	65812.71	7.32
	miscellaneous	150	40109.46	28476.23	3.99
	Total cost of house building	150	1064506.67	797877.84	

Table 3.28 (b)
ANOVA Table on Element-wise Cost

cost	F	Sig.
cost of foundation * House-Building location	3.234	.041
cost of structure * House-Building location	3.921	.021
cost of wood * House-Building location	4.39	.013
cost of electrification * House-Building location	4.117	.017
cost of sanitary * House-Building location	4.153	.017
cost of plastering * House-Building location	3.844	.022
cost of flooring * House-Building location	4.140	.017
cost of painting * House-Building location	3.942	.020
cost of miscellaneous * House-Building location	2.402	.092

Table 3.28(c)
ANOVA Table on Location wise differences in the mean values of percentage to total cost

	F	Sig.
P_Foundation * House-Building location	2.590	.077
P_Structure * House-Building location	2.353	.097
P_Wood * House-Building location	5.230	.006
P_Electrification * House-Building location	1.992	.138
P_Sanitary * House-Building location	1.992	.138
P_Plastering * House-Building location	6.292	.002
P_Flooring * House-Building location	2.353	.097
P_Painting * House-Building location	2.195	.113
P_Miscellaneous * House-Building location	6.655	.001

Table 3.29
Area of Land Owned before Construction

Area	Frequency	Percent
Below 10 cents	58	19.3
10 to 25 cents	203	67.7
25 to 50 cents	17	5.7
50 cents and above	22	7.3
Total	300	100.0

Table 3.30 (a)
Asset Value Before Construction

Area of land owned		Assets holding before constructing house(Rs)	Total cost of house building (Rs)	To sell the house, what price do you expect(Rs)
Below 10 cents	Mean	543126.38	731637.93	1086637.93
	N	58	58	58
	Std. Deviation	309734.124	329993.870	635123.546
10 to 25 cents	Mean	710241.28	1291576.35	2049507.39
	N	203	203	203
	Std. Deviation	619500.660	824366.590	1152472.484
25 to 50 cents	Mean	1190000.00	1348411.76	3882352.94
	N	17	17	17
	Std. Deviation	762200.761	759306.679	1281227.582
50 cents and above	Mean	1303990.45	1183500.00	4645454.55
	N	22	22	22
	Std. Deviation	1658717.660	526473.420	5044348.773
Total	Mean	748660.33	1178616.67	2157583.33
	N	300	300	300
	Std. Deviation	738141.923	761086.200	1924616.865

Table 3.30 (b)
ANOVA Table on Asset Position

	F	Sig.
Assets holding before constructing house(Rs) * Area of land owned	8.446	.000
Total cost of house building (Rs) * Area of land owned	9.130	.000
To sell the house, what price do you expect(Rs) * Area of land owned	29.607	.000

Table 3.31 (a)
Asset Position Before And After House Construction

Year of construction	Area of land owned	Assets holding before constructing house(Rs)	Total cost of house building (Rs)	To sell the house, what price do you expect(Rs)
2001	Below 10 cents	180000.00	626000.00	1840000.00
	10 to 25 cents	526571.72	889344.83	2017241.38
	25 to 50 cents	80000.00	800000.00	2000000.00
	50 cents and above	2959447.50	868750.00	10500000.00
	Total	720214.62	851179.49	2864102.56
2002	Below 10 cents	633898.24	675882.35	958823.53
	10 to 25 cents	847573.33	1139955.56	1867777.78
	25 to 50 cents	1640000.00	950600.00	4600000.00
	50 cents and above	1135714.29	1130285.71	3957142.86
	Total	879284.73	1019635.14	2041216.22
2003	Below 10 cents	726675.29	668235.29	1020588.24
	10 to 25 cents	727351.50	1308825.00	1968750.00
	25 to 50 cents	950000.00	1390000.00	3100000.00
	50 cents and above	1116666.67	1133333.33	3033333.33
	Total	762269.85	1139430.77	1856923.08
2004	Below 10 cents	286947.50	687500.00	925000.00
	10 to 25 cents	640329.17	1348555.56	2083333.33
	25 to 50 cents	1233333.33	856666.67	4166666.67
	50 cents and above	1250000.00	1950000.00	6000000.00
	Total	675547.56	1283733.33	2293333.33
2005	Below 10 cents	421586.00	913666.67	1098333.33
	10 to 25 cents	728711.13	1588679.25	2259433.96
	25 to 50 cents	1166666.67	2616666.67	4333333.33
	50 cents and above	508333.33	1225000.00	1900000.00
	Total	668772.47	1468896.10	2086038.96
Total	Below 10 cents	543126.38	731637.93	1086637.93
	10 to 25 cents	710241.28	1291576.35	2049507.39
	25 to 50 cents	1190000.00	1348411.76	3882352.94
	50 cents and above	1303990.45	1183500.00	4645454.55
	Total	748660.33	1178616.67	2157583.33

Table 3.31 (b)
ANOVA Table on Year-wise Asset Position

	F	Sig.
Assets holding before constructing house(Rs) * Year of construction	.934	.444
Total cost of house building (Rs) * Year of construction	6.053	.000
To sell the house, what price do you expect(Rs) * Year of construction	1.883	.113

Table 3.32 (a)
Annual Maintenance Cost and Size of House Building

Size of house building	Annual maintenance cost of the house				Total
	Below 5000	Below 7500	Below 10000	Above 10000	Below 5000
Below 1000 sq.ft	15	33	0	0	48
	31.3%	68.8%	.0%	.0%	100.0%
1000 to 1500 sq.ft	43	61	53	5	162
	26.5%	37.7%	32.7%	3.1%	100.0%
1500 to 2000 sq.ft	7	26	35	8	76
	9.2%	34.2%	46.1%	10.5%	100.0%
2000 sq.ft and above	1	7	4	2	14
	7.1%	50.0%	28.6%	14.3%	100.0%
Total	66	127	92	15	300
	22.0%	42.3%	30.7%	5.0%	100.0%

Table 3.32 (b)
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	52.043(a)	9	.000
Likelihood Ratio	67.240	9	.000
Linear-by-Linear Association	33.241	1	.000
N of Valid Cases	300		

Table 3.33
Number of Sources of Loan

No. of Sources	Frequency	Percent
.00	5	1.7
1.00	34	11.3
2.00	57	19.0
3.00	89	29.7
4.00	85	28.3
5.00	21	7.0
6.00	4	1.3
7.00	1	.3
8.00	4	1.3
Total	300	100.0

Table 3.34
Average Amount of Loan and Source

Sources	N	Mean
Bank loan Amt	183	462349.73
LIC policy Amt	22	306818.18
LIC housing, finance, HDFC Amt	60	364500.00
Provident fund Amt	162	156604.94
Co-op. bank Amt	75	254640.00
Money lending Amt	15	115333.33
Friends & relatives Amt	114	145947.37
Land sold Amt	84	323714.29
Sale of gold Amt	147	122589.80
Any other(specify)	61	247647.54

Table 3.35**Installment Payable and Repayment Period**

Sources	N	Average Installment Payable	Std. Deviation	Average Repayment Period	Std. Deviation
Bank loan IP	183	4496.86	2111.23	12.62	3.90
LIC policy IP	22	4272.73	3848.46	11.41	3.60
LIC housing, finance, HDFC IP	60	3328.75	1266.07	12.10	4.24
Provident fund IP	162	3447.57	1635.17	3.57	1.66
Co-op. bank IP	75	3109.92	1344.64	9.16	7.37
Money lending RP	--	--	--	1.00	.00
Any other IP	20	2107.35	1437.94	10.26	5.40

Table 3.36**Size of Installment Payable**

Installment	Frequency	Percent
Less than 5000	119	39.7
5000 to 10000	115	38.3
10000 to 15000	49	16.3
Greater than 15000	6	2.0
NA	11	3.7
Total	300	100.0

Table 3.37 (a)**Total Monthly Income and Total Installment Payable**

Total Monthly Income	Total Installment Payable					Total
	Less than 5000	5000 to 10000	10000 to 15000	Greater than 15000	NA	
Below 10,000	25	10	1	0	0	36
	69.4%	27.8%	2.8%	.0%	.0%	100.0%
10,000 to 20,000	43	36	5	0	4	88
	48.9%	40.9%	5.7%	.0%	4.5%	100.0%
20,000 to 30,000	18	20	7	2	0	47
	38.3%	42.6%	14.9%	4.3%	.0%	100.0%
30,000 to 40,000	17	28	21	3	4	73
	23.3%	38.4%	28.8%	4.1%	5.5%	100.0%
40,000 to 50,000	6	12	8	0	1	27
	22.2%	44.4%	29.6%	.0%	3.7%	100.0%
Above 50,000	10	9	7	1	2	29
	34.5%	31.0%	24.1%	3.4%	6.9%	100.0%
Total	119	115	49	6	11	300
	39.7%	38.3%	16.3%	2.0%	3.7%	100.0%

**Table 3.37 (b)
Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	51.222(a)	20	.000
Likelihood Ratio	58.293	20	.000
Linear-by-Linear Association	24.538	1	.000

Table 3.38 (a)
Total Monthly Income and Regularity and Repayment of Loan

Total Monthly Income	Are you regular in repaying your debts		Total
	Yes	No	Yes
Below 10,000	29	5	34
	85.3%	14.7%	100.0%
10,000 to 20,000	71	12	83
	85.5%	14.5%	100.0%
20,000 to 30,000	36	11	47
	76.6%	23.4%	100.0%
30,000 to 40,000	50	17	67
	74.6%	25.4%	100.0%
40,000 to 50,000	23	2	25
	92.0%	8.0%	100.0%
Above 50,000	27	1	28
	96.4%	3.6%	100.0%
Total	236	48	284
	83.1%	16.9%	100.0%

Table 3.38 (b)
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.261(a)	5	.048
Likelihood Ratio	11.458	5	.043
Linear-by-Linear Association	.469	1	.493
N of Valid Cases	284		

Table 3.39
Reasons for Default

Reasons for Default(a)	Responses		Percent of Cases
	N	Percent	N
Difficulties in meeting day to day expenses	33	56.9%	76.7%
Contingencies in family	17	29.3%	39.5%
Notice on other loans	6	10.3%	14.0%
Any other reason(Specify)	2	3.4%	4.7%
Total	58	100.0%	134.9%

Table 3.40
Management of Financial Crisis

Management of crisis	Responses		Percent of Cases
	N	Percent	
Fresh loans raised	38	17.0%	26.6%
Personal borrowings	107	47.8%	74.8%
P F loan	52	23.2%	36.4%
Assests sold	18	8.0%	12.6%
Matured investments	9	4.0%	6.3%
Total	224	100.0%	156.6%

Table 3.41 (a)
Savings Within 1 Year And After 1 Year Of The Construction

Financial position within 1 year, savings were	After 1 year, savings were				Total
	Increasing	Decreasing	No change	No savings	
Increasing	5	1	2	4	12
	41.7%	8.3%	16.7%	33.3%	100.0%
	5.8%	1.9%	3.6%	3.8%	4.0%
Decreasing	61	39	25	24	149
	40.9%	26.2%	16.8%	16.1%	100.0%
	70.9%	72.2%	44.6%	23.1%	49.7%
No change	12	6	18	12	48
	25.0%	12.5%	37.5%	25.0%	100.0%
	14.0%	11.1%	32.1%	11.5%	16.0%
No savings	8	8	11	64	91
	8.8%	8.8%	12.1%	70.3%	100.0%
	9.3%	14.8%	19.6%	61.5%	30.3%
Total	86	54	56	104	300
	28.7%	18.0%	18.7%	34.7%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3.41 (b)
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	93.581(a)	9	.000
Likelihood Ratio	92.208	9	.000
Linear-by-Linear Association	61.853	1	.000

Table 3.42 (a)
Debt Within 1 Year And After 1 Year Of The Construction

Debt within 1 year	Debt after 1 year			Total
	Increasing	Decreasing	No change	
Increasing	52	72	14	138
	37.7%	52.2%	10.1%	100.0%
	61.9%	50.7%	18.9%	46.0%
Decreasing	6	32	17	55
	10.9%	58.2%	30.9%	100.0%
	7.1%	22.5%	23.0%	18.3%
No change	26	38	43	107
	24.3%	35.5%	40.2%	100.0%
	31.0%	26.8%	58.1%	35.7%
Total	84	142	74	300
	28.0%	47.3%	24.7%	100.0%
	100.0%	100.0%	100.0%	100.0%

Table 3.42 (b)
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.205(a)	4	.000
Likelihood Ratio	42.363	4	.000
Linear-by-Linear Association	22.842	1	.000

Table 3.42(c)

Balancing of Home Budget and Time Taken

No. of years	Frequency	Valid Percent
1	25	8.3
2	146	48.7
3	1	.3
3	52	17.3
4	41	13.7
5	24	8.0
6	3	1.0
Not Balanced	8	2.7
Total	300	100.0

Table 3.43 (a)**Total Monthly Income and Debt Trap Due To House Construction**

Total Monthly Income	Debt trap due to house construction		Total
	Yes	No	
Below 10,000	18	18	36
	50.0%	50.0%	100.0%
10,000 to 20,000	39	49	88
	44.3%	55.7%	100.0%
20,000 to 30,000	16	31	47
	34.0%	66.0%	100.0%
30,000 to 40,000	21	52	73
	28.8%	71.2%	100.0%
40,000 to 50,000	4	23	27
	14.8%	85.2%	100.0%
Above 50,000	7	22	29
	24.1%	75.9%	100.0%
Total	105	195	300
	35.0%	65.0%	100.0%

Table 3.43 (b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.524(a)	5	.013
Likelihood Ratio	15.108	5	.010
Linear-by-Linear Association	12.710	1	.000
N of Valid Cases	300		

Table 3.44 (a)**Total Installment Payable Coded and Debt Trap**

Total Installment Payable	Debt trap due to house construction		Total
	Yes	No	Yes
Less than 5000	56	63	119
	47.1%	52.9%	100.0%
5000 to 10000	32	83	115
	27.8%	72.2%	100.0%
10000 to 15000	16	33	49
	32.7%	67.3%	100.0%
Greater than 15000	1	5	6
	16.7%	83.3%	100.0%
NA	0	11	11
	.0%	100.0%	100.0%
Total	105	195	300
	35.0%	65.0%	100.0%

Table 3.44 (b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.136(a)	4	.002
Likelihood Ratio	20.598	4	.000
Linear-by-Linear Association	12.973	1	.000

Table 3.45**Income Tax Benefit Received**

Income Tax	Frequency	Percent
Less than 5000	98	32.7
5000 to 10000	26	8.7
10000 to 15000	47	15.7
15000 to 20000	7	2.3
Above 20000	9	3.0
Missing	113	37.7
Total	300	100.0

Table 3.46(a)**Feeling of House Construction as a Good Investment**

	Frequency	Percent
Yes	232	77.3
No	49	16.3
Not sure	19	6.3
Total	300	100.0

Table 3.46(b)**Feeling of Waste on the Investment Made**

	Frequency	Percent
Yes	52	17.3
No	248	82.7
Total	300	100.0

Table 3.47**Wasteful Components on House Construction**

Components	Frequency	Percent
Electrical components	2	.7
Flooring	6	2.0
Kitchen	2	.7
Ornamentation	20	6.7
Size of the house	6	2.0
Toilets	14	4.7
Wood	2	.7
NA	248	82.7
Total	300	100.0

Table 3.48**Utility of House Constructed and Satisfaction Level**

Satisfaction level	Frequency	Percent
Somewhat satisfied	59	19.7
Dissatisfied	8	2.7
Satisfied	233	77.7
Total	300	100.0

Table 3.49**Readiness To Construct The Same House**

Preference to construct a house like one already constructed	Frequency	Percent
Yes	140	46.7
No	160	53.3
Total	300	100.0

Table 3.50 (a)
Requirements of Building Size Change

Preference	Frequency	Percent
Increase	58	19.3
Decrease	102	34.0
Total	160	53.3
Missing	140	46.7
Total	300	100.0

Table 3.50 (b)
Requirements of Functional Utility Change

Preference	Frequency	Percent
Increase	157	52.3
Decrease	3	1.0
Total	160	53.3
Missing System	140	46.7
Total	300	100.0

Table 3.50 (c)
Required Changes in Ornamentation

Preference	Frequency	Percent
Increase	35	11.7
Decrease	125	41.7
Total	160	53.3
Missing System	140	46.7
Total	300	100.0

Table 3.50 (d)
Material Quality and Changes in Mind

Preference	Frequency	Percent
Improve	135	45.0
Reduce	25	8.3
Total	160	53.3
Missing System	140	46.7
Total	300	100.0

Table 3.50 (e)
Requirement Regarding Location Change

Preference	Frequency	Percent
Required	56	18.7
Not required	104	34.7
Total	160	53.3
Missing System	140	46.7
Total	300	100.0

Table 3.51(a)**Preference For The Same Financing Schemes**

Preference	Frequency	Percent
Yes	249	83.0
No	51	17.0
Total	300	100.0

Table 3.51(b)**Reasons for Changing Finance Options**

	Frequency	Percent
Availability of loans at cheaper rates	1	.3
Co-op loan is still pending. Money lending-Difficult to repay	1	.3
Difficulties in repayment	1	.3
Except personal borrowing	1	.3
Interest rate is very high	1	.3
Interior rate is high	1	.3
Loom creates tension always	1	.3
Money lending - a trap	1	.3
Money lending finance is not viable	1	.3
New house will be built by selling the present one	1	.3
Not necessarily	1	.3
Rate of interest is increasing month by month	1	.3
Will prefer a housing loan	1	.3
Without any loan is preferred	1	.3
Missing	286	95.3
Total	300	100.0

Table 3.52 (a)**Practice of Calculating Interest on Investments**

	Frequency	Percent
Yes	162	54.0
No	138	46.0
Total	300	100.0

Table 3.52 (b)**Calculation of Loss Due to Delay in Completion**

	Frequency	Percent
Yes	103	34.3
No	197	65.7
Total	300	100.0

Table 3.53
Preference Regarding Low Cost House

Preference	Frequency	Percent
Yes	157	52.3
No	143	47.7
Total	300	100.0

Table 3.54**Responses Regarding Ways to Reduce Cost of Building**

Low Cost(a)	Responses		Percent of Cases
	N	Percent	N
Reduction in the size of building	120	24.3%	77.4%
Reduction in the cost of wood	114	23.1%	73.5%
Reduction in the cost of flooring	59	12.0%	38.1%
Reduction in the cost of toilets	30	6.1%	19.4%
Reduction in the cost of kitchen	40	8.1%	25.8%
Reduction in the cost of ornamentation	87	17.6%	56.1%
Reduction in the cost of electrical & plumbing	43	8.7%	27.7%
Total	493	100.0%	318.1%

Table 3.55**Reasons for not Constructing Low Cost Houses**

Reason	Frequency
Lack of social acceptance	9
Family opinion was not favourable	6
Psychological reasons	4
Problems of mosquitoes, pests etc. inside	2
Lack of proper advice	3
Inside humidity during rainy season	2
Effect of globalisation and influence of MNCs	4
By mistake	3
Total	33

Table 3.56(a)

**Multiple Response Analysis on
Reasons for constructing the house rather than buying**

Reasons	Responses		Percent of Cases
	N	Percent	N
Location advantage	224	51.0%	80.3%
Own choice for plan and design	215	49.0%	77.1%
Total	439	100.0%	157.3%

Table 3.56(b)

Other Reasons for Constructing than Buying the House

Reason	Frequency
Ancestral and own land used for house construction	11
To ensure quality work	6
Nearness to family circle	4
Nearness to public facilities like school, transportation	5
For mental satisfaction	2
To construct a low cost house	1
Total	29

Table 3.57

Future Preference for Low Cost House

Preference	Frequency	Percent
Yes	157	52.3
No	143	47.7
Total	300	100.0

Table 3.58**Satisfaction With the Present House on Specific Aspects**

Aspects	No. of Responses "satisfied"	Percentage
Proximity to schools	293	97.7
Proximity to hospitals	267	89.0
Proximity to market	288	96.0
Proximity to places of worship	233	77.7
Proximity to places of entertainment	197	65.7
Proximity to public conveyance road with 1km	297	99.0
Proximity to public conveyance rail within 5 km	180	60.0
Proximity to public conveyance air within 15km	82	27.3

Table 3.59

**Multiple Response Analysis On
Negative Feeling In Constructing The House**

Negative Feelings(a)	Responses		Percent of Cases
	N	Percent	N
It creates lot of tension	237	31.9%	87.1%
It requires some knowledge about construction	188	25.3%	69.1%
It overshoots our estimate	169	22.7%	62.1%
It is difficult to coordinate the workers	150	20.2%	55.1%
Total	744	100.0%	273.5%

Table 3.60 (a)**Generation of Income From Investment In The House**

Income from house	Frequency	Percent
Yes	25	8.3
No	275	91.7
Total	300	100.0

Table 3.60(b)**Source of Income from House Building**

Source of income	Frequency	Percent	Valid Percent
Renting out	7	2.3	28.0
Paying guests	11	3.7	44.0
Own business	5	1.7	20.0
Any other	2	.7	8.0
Total	25	8.3	100.0
Missing System	275	91.7	
Total	300	100.0	

Table 3.60(c)**Monthly Income Generated from House Building**

Amount	Frequency	Percent	Valid Percent
Less than 2500	6	2.0	24.0
2500 to 5000	15	5.0	60.0
5000 to 7500	2	.7	8.0
7500 to 10000	2	.7	8.0
Total	25	8.3	100.0
Missing System	275	91.7	
Total	300	100.0	

Table 3.61 (a)**Size of Rented House and Rent Paid**

Size of rented house in sq.ft	If rented, the rent paid was					Total
	Below Rs.1500	1500 to 3000	3000 to 5000	5000 and above	NA	
Below 1000	5	8	0	0	0	13
	38.5%	61.5%	.0%	.0%	.0%	100.0%
1000 to 1500	2	23	5	1	0	31
	6.5%	74.2%	16.1%	3.2%	.0%	100.0%
1500 to 2000	0	2	4	0	0	6
	.0%	33.3%	66.7%	.0%	.0%	100.0%
2000 and above	0	1	0	1	0	2
	.0%	50.0%	.0%	50.0%	.0%	100.0%
NA	0	0	0	0	248	248
	.0%	.0%	.0%	.0%	100.0%	100.0%
Total	7	34	9	2	248	300
	2.3%	11.3%	3.0%	.7%	82.7%	100.0%

Table 3.61 (b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	487.859(a)	16	.000
Likelihood Ratio	300.709	16	.000
Linear-by-Linear Association	281.995	1	.000

Chapter 4

PERSONAL FINANCE AND HOUSE CONSTRUCTION

Chapter 4

PERSONAL FINANCE AND HOUSE CONSTRUCTION

*Money causes pain in getting,
In the keeping, pain and fretting;
Pain in loss and pain in spending;
Damn the trouble never ending*

Panchathantra

In the last chapter a thorough analysis was made with respect to various aspects of house construction. This chapter is devoted for a discussion on personal finance of the house owners.

4.1 INTRODUCTION

There is nothing in the world that cannot be influenced by money. Financial reasons were cited as the major cause for divorce abroad. Money manipulates everything, corrupts everything, divides everything and spoils everything. It might sound strange, but money can make people decide even whether to have a child or not. Marriages are influenced by money. Even to invite a friend to home is decided on the basis is of money.

If one looks at money from another angle, one will be shocked by the fact that human life is influenced by an inanimate thing such as money. Wind, thunder, lightening, etc. have mobility, at least. Whereas money doesn't even have the mobility. Money is not needed by the organism to survive. It is as if one has created a psychic demon. It could be really worthwhile to look into the phenomenon. Then only one can be free from the clutches of money.

There are many interpretations of money. One was money is like amoeba. It multiplies by itself. If someone deposits some money in a bank without he doing anything it multiplies. The concept of Time value of money reveals that the money one receives in future is not equal to the money one has in hand. It actually meant the old adage 'a bird in hand is worth two in the bush', or the famous quotation 'Ready money is Aladdin's lamp'. Hence money became almost a sovereign. It made people understand that when they have money, they have no time to talk about economics.

There is logic in what people say about money. Money is like the air one breathes. The presence of air is never noticed but its absence is always felt. One cannot think to live without money. But one should not live for money. Money can give people satisfaction and not happiness. This means that people should be able to go beyond money. There are two things one could do. Live like a *sadhu*. Money cannot beat them. Other being is the live like a king (if you have money to live like a king). Then again money cannot beat. But all of us are in between these two extremes. We have to liberate ourselves from the clutches of money. When we consider a king and a *sadhu* one will know for sure that there is no question of money. At both levels one can have financial freedom.

One thing that is not included in the study of behavioural economics is the social pressure or pressure from the peer group. This is one pressure very visible in Kerala. If one analyse from economics stand point one can easily conclude that it is not the cost of living that has upset the Kerala society but the standard of living. If one analyzes the increase in the price of vegetables during the last ten years, one would realize that almost all the prices have doubled or tripled. But salary of people have also more than doubled. Then where is the room for financial

problem? The problem is due to the fact that a large number of products are added to one's the basket of standard of living.

If one analyses a household in Kerala, one would find it difficult to find a house without colour T.V., music system, telephone, two wheeler, gas oven, water connection, newspaper, some magazines, etc. When one compares this with the Tamil society, one will know the difference. Here the pressure is high, especially when one compares oneself with one's immediate neighbours. Every attempt is made by the individuals to keep up with the Joneses. If one watches the public distribution system in Kerala, one can find that only very few people make use of it. But if one looks at the number of suicides, Kerala tops the list and again in Kerala only one does come across family suicides. One wonders why people go to such extremes in a State noted for high literacy and widespread education. In the majority of cases, it has been pointed out that the basic reason for the tragic situation is money or reasons connected with money. People do forget the fact that the previous generation with large families and limited employment opportunities lived here in peace and happiness and yet not without problems, but they did not commit suicides.

Home Extension Loans: The purpose of this loan is the extension of existing houses like addition of rooms, toilet facilities etc. Such loans fall under the category of home loans.

Home Improvement Loans: These loans are provided mainly for repairs and maintenance of existing houses. These could include internal and external repairing, waterproofing and roofing, complete interior renovation, tiling and flooring etc.

Home Purchase Loans: Finance provided for the purchase of ready-made houses.

Land Purchase Loans: These loans are being provided for the purchase of land for the purpose of construction of residential houses.

The loan amount generally depends on the period for which the loan is needed and the repayment capacity of the borrower. The amount of the loan is also subject to the estimated value of property and clear title deeds of the borrower. The rate of interest on these loans depends on a number of factors such as the tenure of the loan, loan amount, purpose of loan, repayment capacity of borrowers and the cost of the fund of the financier. Both, floating and fixed rates are offered to home loan borrowers. The repayment of the loan is generally done through the equated monthly installment method. In case of borrowers expecting a reasonable growth in their future income, installments may be on a graduated basis. The Banks and the HFCs also levy a fee for processing the application and it varies from 0.5 per cent to 1 per cent of the loan amount. In addition they also charge an administrative fee of 1 per cent of the loan amount.

4.2 ECONOMIC SCENARIO

The Indian economy exhibited strong performances over the years especially after the introduction and liberalisation of monetary and fiscal policies encouraging investments in the key sectors like infrastructure, services, manufacturing and external trade etc. According to Central Statistical Organisation (CSO) estimates, the real Gross Domestic Product (GDP) growth accelerated from 7.5 per cent in 2004-05 to 8.1 per cent in 2005-06 (more recent estimates places the growth rate at 8.4 per cent in 2005-06). The construction sector including housing, exhibited double digit growth rates over a three year period. The buoyancy in growth is likely to continue in future and the economy may reach a growth rate of 10 per cent in the coming years. Indian financial markets remained orderly during 2005-06. Similarly, the inflation also remained within the manageable limits of 5 per cent

or slightly above during the last few years and is expected to remain manageable in the coming years. RBI's Annual Policy Statement for the year 2006-07 as announced on April 18, 2006, also indicated its stance of maintaining price stability in the economy.

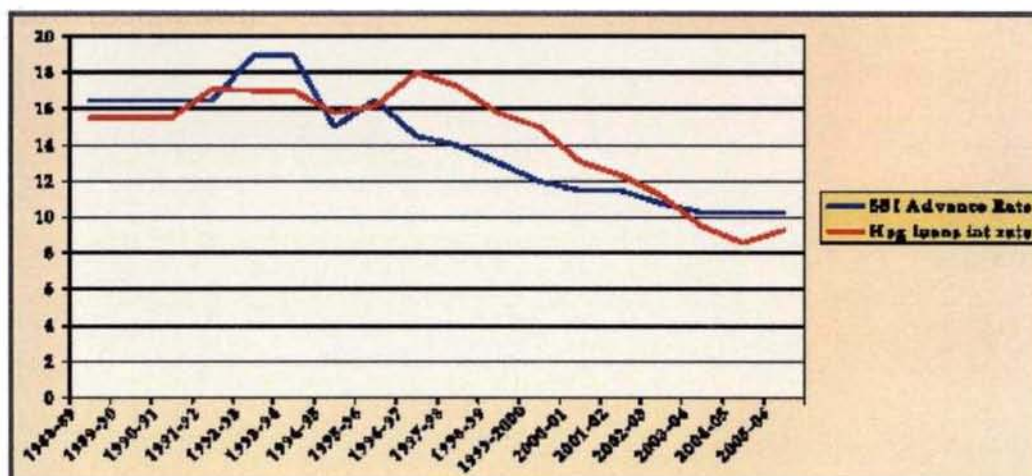
Gross Domestic Savings as a percentage of Gross Domestic Product GDP increased from 28.9 per cent in 2003-04 to 29.10 percent in 2005-06 despite a 1.5 per cent decline in household's savings (22 per cent of GDP in 2004-05). During 2005-06, the saving rate is expected to have gone upto 30 per cent and would remain in the same range in the coming years also.

4.2.1 Interest Rates and the Scenario for Housing Loans

Interest rates largely remained benign, including those on housing loans, and are expected to remain competitively affordable in the coming years also. However, in recent times, the rate has started to move up as can be witnessed from the fact that during the last one-year period, interest rates on housing loans have been increased twice by about 50 bps. Chart 4.1 on indicates the movement of SBI PLR, as well as interest rates on housing loans over the period 1988 to 2005.

Chart 4.1

Chart Showing Movement of Interest Rates



4.2.2 Housing Investment and GDP

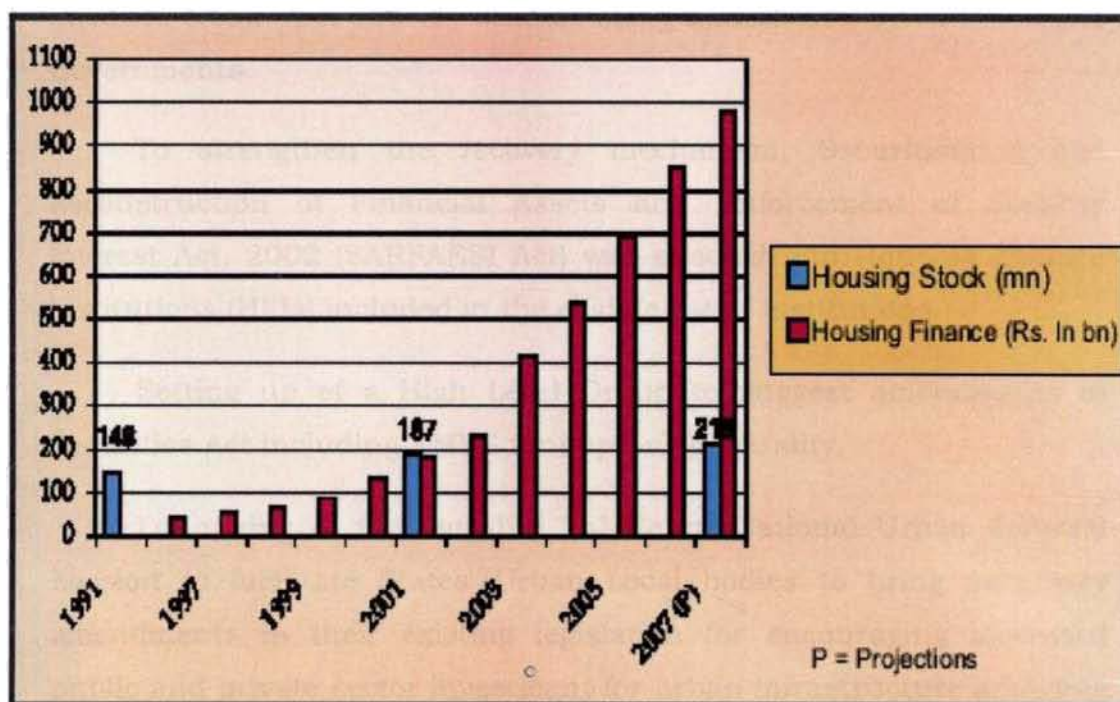
The accelerated growth of housing finance has resulted in an increase in its share in the GDP. Outstanding housing loans as a percentage of GDP has risen from 3.4 per cent in 2001 to 7.25 per cent in 2005 and 8.50 per cent in 2006 (estimated). The figure has been pegged at about 9 per cent by the end of the 10th Plan i.e. 2007. In view of the increased investment in the services sector, which contributes about 50 per cent to the nation's GDP, and growth in urbanization, it is expected that the share of housing in GDP and GFCF would go up substantially in the coming years.

4.2.3 Fiscal Concessions and its Impact on Housing Loans

The fiscal concessions provided to individuals under Section 88 of the IT Act (now Section 80 C wherein the deductible amount is up to Rs. 1 lakh as compared to Rs.20,000 earlier u/s 88 of the IT Act) in 1995 and Section 24 (B) in 1999 (deductible amount of interest repayment is up to Rs. 1.50 lakh), have led to an increase in demand for housing loans resulting in increased disbursements of housing finance by primary lenders over the years. As a result, housing stock in the country increased from 148 million units in 1991 to 187 million units in 2001 and is expected to have further gone to 218 million units in 2007. The following Graph 2.3 indicates the position of housing stock vis-a-vis the housing finance during the period 1996-2007(Estimated).

Chart 4.2

Chart Showing Impact of Enabling Fiscal Environment on Growth of Housing Stock and Housing Finance Disbursals by Banks and HFCs



4.2.4 Government Initiatives

The National Housing and Habitat Policy was adopted by the Government in 1998 with the main aim of facilitating an investment environment for housing. It was revised in 2005. Accordingly, the Task Force set up by the Ministry of Urban Affairs and Employment submitted its recommendation on Urban Housing and Habitat Policy, suggesting inter-alia, setting up of a National Shelter Fund and Risk Fund with the initial corpus from the Government, to serve the underserved segments.

Fiscal concessions to individuals increased under Section 80C of the IT Act [rebate up to Rs. 1 lakh in respect of repayment of principal],

Section 24(2) [interest deduction up to a limit of Rs. 1.50 lakh in respect of properties acquired or constructed with borrowed capital and self occupied.]

Two Million Housing Programme, which is being monitored annually by the Ministry of Urban Affairs and Poverty Alleviation. This includes credit cum subsidy scheme being undertaken by various State Governments.

To strengthen the recovery mechanism, Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act) was enacted and Housing Finance Institutions (HFIs) included in the eligible list of institutions.

Setting up of a High Level Group to suggest amendments in Securities Act including RMBS for improving liquidity.

Launching of the Jawahar Lal Nehru National Urban Renewal Mission to facilitate States'/Urban Local bodies to bring necessary amendments in their existing legislation for encouraging increased public and private sector investment for urban infrastructure including housing.

To improve the habitat conditions in rural areas, construction of 60 lakh houses in rural areas under "Bharat Nirman" announced.

Foreign Direct Investments (FDIs) allowed up to 100 percent under the automatic route in townships, housing, built-up infrastructure and construction development projects to catalyze investment in a vital infrastructural sector of the economy. FDI has also been opened up for construction-development projects over 50,000 square meters including housing, hotels and resorts, hospitals, commercial premises and educational institutes. However, a minimum investment gap of \$10 million in 100 percent FDI projects and \$5 million in joint venture projects has been prescribed. Further, the

existing 40- hectare stipulation has been reduced to 10 hectares for investment under FDI.

A policy was introduced in April, 2000 for setting up of Special Economic Zones (SEZ) in the country with a view to provide an internationally competitive and hassle free environment for exports. The policy provides for setting up of SEZ's in the public, private, joint sector or by State Governments. In terms of this policy, the SEZs will include inter-alia the facilities like world class residential premises and social services

The Indian housing finance market has grown fairly significantly during the last few years. Fiscal incentives for investment in housing for households and treatment of housing finance as Priority Sector lending for banks have been two of the main factors contributing to growth in this market. However, a large part of the industry portfolio has been acquired in the present low-interest rate scenario and during the period when economic conditions have been relatively stable.

The key to further growth in the Indian housing finance market, as elsewhere in the world, is the ability of housing finance firms (including banks) to trade their portfolio. Securitization has been one of the most important risk-sharing arrangements in the housing finance market, the world over. It has been proved that securitization can help lower the cost of credit, broaden the pool of investors. And borrowers and lessen the variability in availability of capital for the housing finance firms.

Success in the development of the securitization market depends on the ability to understand the behavior of underlying mortgage assets under varied economic conditions for different market segments.

The knowledge of borrower, property and loan characteristics is critical to understanding the nature of risk associated with packages of securitized assets. Towards this end, NHB conducted a study of the credit and prepayment characteristics for a sample of housing loan portfolios across different geographical markets. The objective was to identify relevant tools in respect of pricing of securitized assets and determine factors, which would contribute in the choice of credit enhancement instruments. In addition, the study was expected to facilitate product design, credit analysis processes and pricing decisions by the housing finance institutions.

4.3 HOUSE CONSTRUCTION AND PERSONAL FINANCE

In order to ascertain the personal financial practices of the respondent's 15 questions were asked on the different aspects of personal financial practices. Each question was provided with five alternatives with scores ranging from five to one. So the total score possible is 75 ie., 15 questions multiplied by score five. One important thing to be noted that there is no cut off with regard to the score and the attempt is only to see to what extent the personal financial practices exists that can be read on the basis of score.

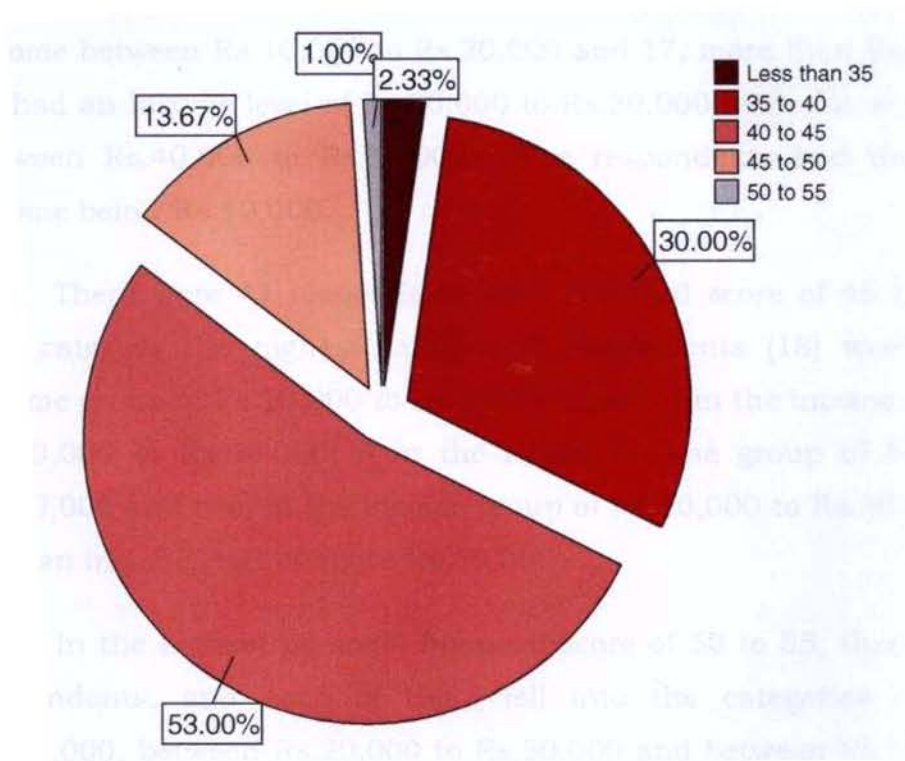
The 15 questions consists of investment plan, retirement plan, tax plan, plan to increase income and decrease expenditure, priority based spending plan, planning for non-recurring expenses and budgeting belongs to the planning aspect a loan whereas questions like importance of financial freedom, clarity regarding short term objectives, clarity regarding long term objectives, maintaining financial accounts and comparing income and expenditure with budgeted one are a process related to the

administrative aspects of the personal financial plan. It is to this score various associations are found out.

4.3.1 Personal Financial Practices of the Respondents

An attempt was made to obtain the personal financial practices of the respondents in relation to house construction. An assessment was made with the help of a schedule, which carried 15 questions on personal financial practices. The questions raised to measure up the quality of the personal financial practices were with the help of a schedule, which was standardized and used in various studies. After collecting the data an attempt was made to distribute the respondents on the basis of personal financial score. Then this score was used to find various associations like income, education, occupation etc. Given below is the analysis of the data collected.

Fifteen questions were asked to the respondents to assess their personal financial practices. All the questions had five marks. Out of 15 questions asked except the first three questions, the rest has five alternatives. The aggregate mark of each respondent was assessed against the total score of 75 marks. The more marks of the respondent showed that his personal financial practices are better than the other respondents who had lesser marks. The questions raised were all standard questions which were used for different studies. Associations of various aspects of house construction were calculated in the light of financial score to assess the impact. Given below is the analysis of the data collected.

Chart 4.3**Chart showing personal financial score of house owners**

As per the Table 4.1, majority of the respondents i.e., 159 (53%) had a score between 40 and 45 and 90, a score between 35 and 40, 41 (41.7%), had a score between 45 and 50 while 3 persons (1%) the highest score between 50 and 55. Seven people had a score of less than 35.

4.3.2 Personal Financial Score and Monthly Income

As per the Table 4.2(a), the association between personal financial score and the monthly income of the respondents are worked out. It may be noted that majority of the respondents (159) had a score of 40 to 45. Out of this, 52 persons had an income of Rs.10,000 to Rs.20,000, 35, an income of Rs.30,000 to Rs.40,000 and 27, an income of Rs.20,000 to Rs.30,000, 12, an income of Rs.40,000 to Rs.50,000

and 11 the highest income of above Rs.50,000. 22 people had the lowest income below Rs.10,000.

In the category of 35 to 40 where there were 90 respondents, maximum (23) had an income between Rs.30,000 to Rs.40,000, 18, an income between Rs.10,000 to Rs.20,000 and 17, more than Rs.50,000. 15 had an income level of Rs.20,000 to Rs.30,000 while 12, an income between Rs.40,000 to Rs.50,000. Five respondents had the lowest income below Rs.10,000.

There were 41 respondents with financial score of 45 to 50, in this category the highest number of respondents (18) were in the income group of Rs.10,000 to Rs.20,000 and 12, in the income group of Rs.30,000 to Rs.40,000; 8 in the lowest income group of less than Rs.10,000 and two, in the income group of Rs.20,000 to Rs.30,000 and one, an income level of above Rs.50,000.

In the highest personal financial score of 50 to 55, there were 3 respondents, and each of them fell into the categories of below Rs.10,000, between Rs.20,000 to Rs.30,000 and between Rs.30,000 to Rs.40,000.

There were 36 people in the category of less than Rs.10,000 income. Of that, 22 had a financial score of 40 to 45; eight, a score of 45 to 50; five, a score of 35 to 40 and one, a score of 50 to 55. In the category of Rs.10,000 to Rs.20,000 monthly income there were 88 people, of that 52 had a score of 40 to 45; 18, a score of 45 to 50 and another 18, a score of 35 to 40. In the income of Rs.20,000 to Rs.30,000 there were 47 people, of which 27 had a score of 40 to 45; 15, a score of 35 to 40; two, a score of 45 to 50 and one, score 50 to 55. In the category of Rs.40,000 to Rs.50,000 there were 27 respondents, of which 12 each had a score of 35 to 40 and 40 to 45 respectively, 3 had a score of less than 35. The category of above Rs.50,000, there were 29 people of that 17 had a score of 35 to 40; 11, a score of 40 to 45; one, a

score of 45 to 50. A glaring observation is that in almost all the income groups, majority of the respondents have financial score of 40 to 45, which is much above 50% marks of 75.

The association between personal financial score categories and total monthly income has been analysed statistically using chi-square and the values are shown in Table 4.2(b). The likelihood ratio is nil (0.000). Since the significance level of chi-square test is less than 0.05, it is concluded that there is statistically significant association between personal finance score and total monthly income.

4.3.3 Personal Finance Score and Education

As per Table 4.3(a) showing the personal financial score and educational qualification, one could see that 27 respondents were under graduates. 14 respondents in this category had the score of 40 to 45 while 8, a score of 45 to 50 and five, a score of 35 to 40. There were 108 graduates among the respondents and among this category 50 respondents had a score of 40 to 45; 31, a score of 35 to 40 while 25, a score of 40 to 45. Two had a score of 50 to 55 and one, less than 35.

There were 107 post graduates and 63 of them had a score of 40 to 45; 35 had a score of 35 to 40; six, a score of 45 to 50 and four, less than 35. There were 58 professionals, among whom 32 had a score of 40 to 45 and 20, a score of 35 to 40; three, a score 45 to 50 and one, a score of 50 to 55 and two, a score of less than 35. Irrespective of the educational level, majority of the respondents had a score of 40 to 45.

The Association between the personal financial score categories and the educational qualification of the house owners were analysed by using the statistical tool of chi-square test and the value of likelihood ratio as per Table 4.3(b) is 0.003, which is less than 0.05. Since the significance level of the test is less than 0.05, it is concluded that there

is statistically significant association between personal finance score and educational level.

4.3.4 Personal Finance Score and Occupation

Table 4.4(a) shows the different categories of occupants and they were doctors, engineers, supervisors, college/university teachers, non-supervisory, school teachers and others. Among the 18 doctors, 10 had a score of 40 to 45 and seven, a score of 35 to 40 and one, a score between 45 and 50. Among the 24 engineers, 16 had a score of 40 to 45; seven, a score of 35 to 40 and one, less than 35. Of the supervisory category there were 93 respondents and the majority (42) had a score of 40 to 45; 32, had a score of 35 to 40 while 15, a score of 45 to 50 and one, a score of 50 to 55. Among 23 university/college teachers 13 had a score of 40 to 45; eight, a score of 35 to 40 while two, less than 35. Among the 58 non-supervisory respondents 33 had a score of 40 to 45; 12, a score of 45 to 50 while 10, a score of 35 to 40. Two had scored 50 to 55 and one, less than 35. Among the 28 school teachers 19 had a score of 40 to 45; seven, a of score 35 to 40 and two, a score of 45 to 50. Among 56 others, 26 had a score of 40 to 45; 19, a score of 35 to 40 and 11, a score of 45 to 50.

The association between personal financial categories and the occupational status of the house owners were tested statistically by applying chi-square test and the value of likelihood ratio as per Table 4.4(b) is 0.019. Since the significance level of the test is less than 0.05, it is concluded that there is statistically significant association between personal finance score and occupation.

4.3.5 Personal Finance Score and Age at the Time of House Construction

It can be seen from Table 4.5(a), out of the 300 respondents, majority (168); 56% of the respondents have constructed their houses within the age limit of 30 to 40. 105 respondents (35%) had

constructed their house between the age of 40 to 50; 11 respondents (3.7%) had constructed their houses when they are above 50 years and 16 (5.3%) constructed their houses when they were below 30 years.

As per Table 4.5(b) it can be seen from the chi-square test that the significance level of the test is greater than 0.05 and there is no statistically significant association between the personal finance score and the age at the time of construction. Hence it is concluded that there is no association between the age of house owners and their house construction.

4.3.6 Personal Financial Score and Size of the Building

As per the Table 4.6(a), those who had a score of less than 35; five respondents constructed houses between 1000 to 1500 sq.ft. and two respondents constructed house of more than 2000 sq.ft. Among the people who had a score 35 to 40, 54 respondents constructed houses of 1000 to 1500 sq.ft. while 25 respondents constructed houses of 1500 to 2000 sq.ft. Eight, houses of less than 1000 sq.ft and three, houses above 2000 sq.ft. Among the respondents who had a score of 40 to 45; 83 constructed houses of 1000 to 1500 sq.ft.; 40, of 1500 to 2000 sq.ft. 28, below 1500 sq.ft. while eight, houses of 2000 sq.ft. and above. Among the respondents who had a score of 45 to 50; 19 constructed houses of the size 1000 to 1500 sq.ft.; 11, houses of 1500 to 2000 sq.ft. and 10, houses below 1000 sq.ft and one, above 2000 sq.ft. Among the three respondents, who had a score of 50 to 55, two, houses below 1000 sq.ft. and one, house between 1000 sq.ft. to 1500 sq.ft.

Here the association between personal financial score categories of house owners and the size of house building is analysed statistically by applying chi-square test. As per Table 4.6(b) the likelihood ratio is found to be 0.034. Since the significance level of the test is less than

0.05, it is concluded that there is statistically significant association between personal financial score and the house building.

4.3.7 Total Cost of House Building

From Table 4.7(a), it can be seen that very few respondents i.e., 38 (12.7%) out of 300 had constructed houses costing less than Rs.5 lakhs. 121 respondents (40.3%) constructed houses costing Rs.10 to 15 lakhs while 70 (23.3%), constructed houses costing Rs.10 to 15 lakhs, 53 (17.7%), constructed houses costing Rs.15 to 20 lakhs, three (4%), constructed houses costing Rs.20 to 25 lakhs and 15 (5%), constructed houses costing above Rs.25 lakhs. If we take the mean value of the cost we will see that roughly 50% of the respondents, constructed houses costing above Rs.10 lakhs. It is true that none of the respondents with a personal financial score of 50 to 55 constructed houses costing above Rs.10 lakhs and only very few who have a score of 45 to 50 constructed houses costing above Rs.10 lakhs. On the basis of the data it cannot be concluded strongly that there is an association between personal financial score and the total cost of the house though there is an inclination to that.

Here the association between personal financial score of the categories of house owners and their total cost of house building is analysed in Table 4.7(b) statistically by applying chi-square test and the likelihood ratio is 0.406 which is much greater than 0.05. Since the significance level of the test is greater than 0.05, it is concluded that there is no statistical significant association between personal finance score and the total cost of house building.

4.3.8 Personal Finance Score and the Cost Over-run

Operational Definition: Cost overrun is defined as the excess cost incurred over the estimated cost for completing the work.

It can be seen from the Table 4.8(a), as the financial score increases, the difference between actual cost and estimated cost is reducing. There are only three respondents with personal financial score of 50 to 55, and out of them, two respondents had a variation of cost overrun less than a lakh rupees and the other, a cost overrun of one to two lakhs.

There were seven respondents with personal financial score less than 35 of which two had a cost overrun of rupees four to five lakh of rupees, two had a cost overrun of two to three lakh rupees, one, in between rupees one and two lakh and the remaining two, a cost overrun of less than rupees one lakh.

Out of the 90 respondents who had a personal financial score of 35 to 40; 38 had, cost over run of rupees one to two lakh, 13, cost overrun of rupees two to three lakh; seven, cost overrun of three to four lakh and the remaining two, cost overrun of rupees four to five lakh.

There were 159 respondents with a personal financial score of 40 to 45. Out of these 63 had a cost overrun of less than rupees one lakh; 48, cost overrun of rupees one to two lakh, 32, cost overrun of rupees two to three lakh; nine, cost overrun of rupees three to four lakh and the remaining seven, cost overrun in between rupees four and seven lakh.

There were 41 respondents with personal financial score of 45 to 50 of whom 21 had a cost of overrun of less than rupees one lakh, 17, cost overrun between rupees one and two lakh, two, cost overrun between rupees two and three lakh and one, a cost overrun of rupees four to five lakh.

The statistical significance of the association between personal financial score categories and the cost overrun is tested by applying chi-square test and as per Table 4.8(b) the likelihood ratio obtained is

0.046. Since the significance level of the test is less than 0.05, it is concluded that there is statistically significant association between personal finance score and differences in the estimation of costs.

4.3.9 Personal Financial Score and Balancing of Home Budget

Usually there will be a financially tough situation once the house construction is over. But those who are aware of this will prepare themselves financially to handle the situation. This should be true for those who had high personal financial score as they are supposed to be doing the ground work to avoid the situation. Table 4.9(a) shows that how many of the respondents were able to balance their home budget after house construction and the relationship it was with the personal financial score. Out of the 300 respondents, 170 (56.7%) respondents revealed that their home budget were not balanced after construction of their houses while 130 (43.3%) revealed that their home budget is balanced after house construction. Out of the 170 respondents who revealed that their home budgets were not balanced 50 respondents belong to the personal financial score category of 35 to 40; 94, to the personal financial score category of 40 to 45 and 23 to the personal financial score category of 45 to 50, two to the category of less than 35 and the remaining one to the category of 50 to 55. 168 respondents out of 170 are supposed to have personal financial practices but it is worth noting that their home budgets are not balanced after their house construction. The same is reflected in the chi-square test applied for analyzing the association between house construction and balancing of home budget.

The association between home budget and house construction is tested statistically and the results are shown in Table 4.9(b). Here the likelihood ratio is 0.499 which is much greater than 0.05. Since the significance level of the test is greater than 0.05, it is concluded that

there is no statistically significant association between personal finance score and the balancing of home budget.

4.3.10 Personal Finance Score and Total Loan Taken

The personal financial score categories and the total loan category of the house owners are cross tabulated in Table 4.10(a). Among the 300 respondents five had not taken any housing loan. Seven persons had a personal finance score less than 35; 90, had the score between 35 and 40; 159 the score between 40 and 45; 41, the score between 45 and 50 and the remaining three, the score between 50 and 55. Out of the seven respondents who had the personal finance score less than 35, had taken a housing loan of less than Rs.5 lakhs, three, housing loans ranging from Rs.5 to 10 lakh, two persons, housing loan between Rs.10 to Rs.15 lakh and the remaining one, had taken the housing loan of Rs.15 to Rs.20 lakh.

Out of the 90 respondents who had the personal finance score between 35 and 40, one respondent had not taken any housing loan, 26 had taken housing loan of less than Rs.5 lakh, 36 persons, housing loan between Rs.5 lakh and Rs.10 lakhs, 16, housing loan between Rs.10 to Rs.15 lakh, nine, the loan between Rs.15 to Rs.20 lakh and the remaining two, housing loan of above Rs.20 lakhs.

Among the 159 respondents who had personal financial score between 40 and 45; three respondents had not taken any housing loan, 64 respondents had taken housing loan of less than Rs.5 lakh. The majority (59 respondents) took housing loan ranging from Rs.5 to Rs.10 lakh; 16, loan between Rs.10 to Rs.15 lakh, 13, loan between Rs.15 and Rs.20 lakh and the remaining four housing loan worth above Rs.20 lakhs.

Out of the 41 respondents who had personal finance score between 45 and 50, one respondent had not taken any housing loan.

21 respondents took housing loan of less than Rs.5 lakh, 14, housing loan ranging from Rs.5 to 10 lakh, four, loan of Rs.10 to Rs.15 lakh and the remaining one, housing loan between Rs.15 and Rs.20 lakh. It may be noted that nobody from this group had taken housing loan above Rs.20 lakh.

Out of the three respondents who had the maximum personal finance score between 50 and 55, two, had taken housing loan of less than Rs.5 lakh and the remaining one, housing loan between Rs.5 and Rs.10 lakh. It may be noted that nobody from the group having a personal finance score above 50 had taken any housing loan exceeding Rs.10 lakhs.

The association between personal finance score categories and the total loan amount category is statistically tested by using chi-square and the values are given in Table 4.10(b). Since the significance level of the test is greater than 0.05 it is concluded that there is no statistically significant association between the personal finance score and the categories of loan amount. There is a common belief that persons who are having good personal finance score will manage their finances within the available resources and here the test disproves that belief. Here the analysis reveals that even the persons with high personal finance score are not reluctant to go for high amount of housing loans.

4.3.11 Repaying of Debts

Over the past few years, the steady growth registered in housing finance disbursements by various financial institutions indicates continued buoyancy in the industry. The housing finance disbursement has shown a significant increase during the year 2004-05. The total disbursements of housing finance stood at Rs.76,819 crores registering an overall growth of 41.47%. The five year compounded annual growth rate (CAGR) as on 2004-05 stood at 32.15.

Home loan products are offered by almost all banks. Even for purchasing real estate or for buying a flat or for home improvement or home extension loans are given. The EMI and rate of interest is decided, taking into account a number of factors such as, the loan amount, market value of the land or building, tenure of loans etc. The loan amount generally depends on the period for which the loan is needed and the repayment capacity of the borrower. The repayment of the loan is generally done through the equated monthly installment method. It is worth to note that the outstanding housing loans granted by the scheduled commercial banks for three years is given below. As per Table 4.11 the region wise classification of outstanding loans by scheduled commercial banks as on 31st March of the years 2003, 2004 and 2005 gives the following details.

With regard to the Northern region the total amount of housing loan outstanding for the year 2003 was Rs.8,847.42 crore, for the year 2004, it was Rs.16,223.69 crores and for the year 2005, it was Rs.23,904.4 crores.

With regard to the North-Eastern region, the total amount of housing loan outstanding for the year 2003 was Rs.872.83 crore, for the year 2004, it was Rs.948.42 crore and for the year 2005, it was Rs.1,774.91 crore.

With regard to the Eastern region, the total amount of outstanding housing loans for the year 2003 was Rs.5,160.08 crore, for the year 2004, it was Rs.7,850.20 crore and for the year 2005, it was Rs.1,162.52 crore.

For the Central region the total amount of outstanding housing loan for the year 2003 was Rs.5,308.72 crore, for the year 2004, it was Rs.8,702.37 crore and for the 2005, it was Rs.13,132.03 crore.

For the Western region the total amount of outstanding housing loan for the year 2003 was Rs.10,053.44 crore, for the year 2004 it was Rs.1,19,944.49 crore and for the year 2005, it was Rs.29,488.74 crore.

With regard to the Southern region, the total amount of outstanding housing loan for the year 2003 was Rs.18,824.42 crore, for the year 2004, it was Rs.31,677.26 crore and for the year 2005, it was Rs.47,334.42 crore. It may be noted that for all the years the Southern region that includes Kerala tops with the highest amount of outstanding housing loans.

With regard to the state of Kerala the total amount of outstanding housing loans during the years 2003, 2004 and 2005 were Rs.3,402.46 crore, Rs.5,559.1 crore and Rs.8,801.54 crore respectively.

4.3.12 Regularity in Repaying Housing Loans

In the present study, there were 300 respondents who had constructed non low cost houses and out of which 284 respondents had taken housing loans from various financial institutions and here an attempt was made to see whether there is any association between personal financial score and debt repayment. The regularity of repaying housing loan is cross tabulated with personal financial score of the house owners in Table 12(a).

Out of the 284 respondents who had taken housing loans, 236 respondents (83.1%) revealed that they are regular in repaying their debts and only 48 respondents (16.9%) revealed that they are irregular in making repayment of the housing loans. Out of the 48 respondents

who are irregular in repaying their debts, the majority (29) had a personal financial score between 40 to 45; 13, the score between 35 and 40; three, the score between 45 and 50; two, the score less than 35 and the remaining one, the score between 50 and 55. Here it may be observed that majority of the housing loans are deducted from the salary of the respondent at source. Hence the possibility of not repaying is remote. In fact this is not going to have much relationship with personal financial score as the deduction at many a time is compulsory and the same is supported by the statistical test conducted.

The association between repaying of housing loans and the personal financial score of the house owners is tested statistically by applying chi-square test and as per Table 12(b) the likelihood ratio is found to be 0.259. Since the significance level of the test is greater than 0.05, it is concluded that there is no statistically significant relation between personal financial score with repaying of debts.

4.3.13 Debt Trap Due to House Construction

Now-a-days falling in debt trap especially after house construction is more or less a common phenomenon. The debt trap is a simple expression that the person is not able to service his debts. In other words, it can be simply said that the respondent is not able to pay the installment amount of the housing loan. An attempt is made to see whether there is any association between the debt trap, house construction and financial score. It can be seen from the Table 4.13(a) out of 300 respondents, 195 (65%) revealed that they are not in debt trap while 105 (35%), revealed that they are in debt trap. This figure of 105 is enormous as the individual house construction has resulted in a negative note even though the attempt was to have a bright future in settled home. Among the 105 respondents, 19, had a good financial score of 45 to 50 and two had a financial score of 50 to 55. There are 53 respondents with 40 to 45 score and 28, with 35 to 40 score. It is

disturbing to note that even a good financial score did not keep the respondents away from debt trap. It may be true that the majority may not be experiencing the debt trap, but 35% of the respondents by no means are a negligible number.

The association between personal financial score and debt trap is tested statistically by applying chi-square and the values of significance level are given in Table 4.13(b). Since the significant level of the test is greater than 0.05 it is concluded that there is no statistically significant association between the personal financial score and debt trap. The truth is that higher personal financial score did not help the respondents to get away from debt trap.

4.3.14 Interest on Investment in House Construction

An attempt is made to see whether there is any awareness regarding the interest on investment made in house construction among the respondents. The association is between personal financial score and the calculation of the interest on investment in house construction. It can be seen from Table 4.14(a) that out of the 300 respondents, 162 (54%) had conveyed that they had calculated interest on investment made in house building while 138 (46%), had not calculated interest on the investment on their house building. It may be noted that in this association there is no relationship between personal financial score and the calculation of interest on the investment made. This again should be read in the light of the previous statements made that even those who have good personal financial score are not reflecting it in action.

The statistical significance of the association between interest on investment on house construction and the personal financial score has been tested statistically by applying chi-square test and as per Table 4.14(b) the likelihood ratio is 0.423. Since the significance level of the test is greater than 0.05, it is concluded that there is no statistically

significant association between the personal finance score and the practice of calculating interest on investment made in house building.

4.3.15 Loss due to Delay in Completion

Delay in construction is nothing new but one with awareness of house construction will take into consideration this aspect because loan once taken has to be paid back with interest irrespective of the fact whether house construction is complete or not. As per Table 4.15(a), it can be seen that out of 300 respondents, 197 (65.7%) had not calculated the loss due to delay in completion. 103 respondents (34.3%) had calculated the loss due to delay in construction. A close look at the table shows that in fact except those who had a score 50 to 55, that a very meager number of 2 persons had calculated the loss due to delay while in all other levels of scores those who had personal financial score did not calculate loss due to delay.

The association between personal financial score and the calculation of loss due to delay in construction is analysed by applying chi-square test and as per Table 4.15(b) the likelihood ratio is 0.412. Since the significance level of the test is greater than 0.05, it may be concluded that there is no statistically significant relation between the personal financial score and the practice of calculating loss due to delay.

4.3.16 Utility of the House Constructed

An attempt is made to see the satisfaction level of the respondents regarding the utility of their houses and the personal financial score. As per Table 4.16(a), out of the 300 respondents, 233 (77.7%), were satisfied with their houses constructed. 59 respondents (19.7%) were somewhat satisfied and only 8 respondents (2.7%) were dis-satisfied. Out of the 233 respondents who revealed that they are satisfied with the houses constructed, five had personal financial score

less than 35; 69, between 35 and 40; 126, between 40 and 45; 31, between 45 and 50 and the remaining two had the score in between 50 and 55. Out of the 59 respondents who were somewhat satisfied, two had a personal financial score less than 35; 20 had the score between 20 and 30; 29 had score in between 40 and 45 and the remaining eight, a score between 45 and 50. From this category nobody had got a score above 50. Out of the 8 persons who are dissatisfied with the utility of the houses constructed, one each had the personal score in between 35 and 40 and 50 and 55, four had the score in between 40 and 45 and remaining had a score in between 45 and 50.

It is a common belief that while constructing the house nobody is bothered of the finance but they are very much conscious in enhancing the maximum utility of the house. This belief is proved while testing the statistical significance of the association between personal financial score of house owners and the utility of the house constructed. The statistical tool applied is chi-square test and the likelihood ratio shown as per Table 4.16(b) is 0.504 which is much greater than 0.05. Since the significance level of the test is greater than 0.05, it is concluded that there is no statistically significant association between the personal finance score and the feeling of the utility of house.

4.3.17 Personal Finance Score and the Feeling of the House Constructed as a Good Investment

Table 4.17(a) shows that of the 300 respondents, 232 revealed that they hold the view that houses constructed were a good investment while 49 believed that it was not, and 19, were not sure. An analysis on the basis of personal financial score shows that 114 respondents out of the 232 had a score of 40 to 45. 78 respondents out of 232 had a personal financial score between 35 to 40 while 31 respondents out 232, a score of 45 to 50. Three respondents had a score of 50 to 55 and six, less than 35. Among the 49 respondents who answered negatively 36 had a personal financial score 40 to 45; seven, a score of

45 to 50; five, a score of 35 to 40 and one, a score less than 35. Out of the 19 respondents who were not sure, nine had a score of 40 to 45, three, a score of 45 to 50 and seven, a score of 35 to 40.

It can be seen from the Table 4.17(b) the association between the personal financial score categories and the feeling on house as a good investment is statistically tested by applying chi-square test and the likelihood ratio is found to be 0.033. Since the significance level of the test is less than 0.05 it is concluded that there is statistically significant association between personal finance score and the feeling of house as a good investment.

4.3.18 Awareness of the Economic House

An attempt is made to ascertain whether the respondents are aware of low cost house construction or not. For this purpose the responses of the respondents in the light of their personal financial score is analysed. This is shown in Table 4.18(a). It can be seen from the table that out of the 300 respondents, 242 (80.7%) are aware of this concept while 58 (19.3%) are not at all aware of this. However, among these 300 respondents none of them had constructed an economic house clearly shows that they have heard the concept but has not assimilated it and that is why it is not reflected in action.

It can be seen from the Table 4.18(b) the significance level of the test is greater than 0.05, it is concluded that there is no statistically significant association between personal finance score and the awareness of economic house. Here one can say that the earlier statement that the depth of knowledge regarding economic house is inadequate stands proved.

4.3.19 Willingness to Construct the same House

It is general principle whoever is satisfied with a thing or an activity will do it again in the same spirit the question was put to the respondents whether they will construct a house like the one they had constructed again. 160 (53.3%) respondents (Ref. Table 4.18) out of 300 had said that they will not, while 140 respondents (46.7%) said they will. It again shows the respondents are far away from being satisfied with the house that they had constructed. This feeling was for all the respondents irrespective of whether they had a good personal financial score or not. In fact at majority of those who said no had better financial score than others who said yes. This shows that there is no association between personal financial score and the house constructed and more or less this was a feeling across whole set of the respondents. The chi-square test applied on this also shows that there is no association between personal financial score and the question will you construct a same house again. The significant level of the test is greater than 0.05.

4.4 CONCLUSION

In this chapter we have analysed the relationship between the personal financial practices of the respondents and this house construction. For the purpose of measuring personal financial score the schedule was used and the association between the score and various factors like education, occupation, monthly income, house as an investment etc. was found. But the single factor i.e., the inability to control cost of construction of houses and that too in relation to the estimated cost have revealed that even respondents who have high financial score could not escape from the cost overrun. Sad to say that in the case of those people who are in debt trap, their inability to balance the home budget increases their debt and reduces savings and

put them in a vicarious circle. This is an eye opener and a warning signal even to those who practice personal finance. The gist of the analysis is that it will be always better to keep the house construction expenditure within the estimated cost in order to escape from the debt trap.

Chapter 4 - TABLES

Table 4.1

Personal Finance Score and Number of Respondents

Personal Finance Score	Frequency	Percent
Less than 35	7	2.3
35 to 40	90	30.0
40 to 45	159	53.0
45 to 50	41	13.7
50 to 55	3	1.0
Total	300	100.0

Table 4.2(a)

Personal Finance Score and Monthly Income

Personal Finance Score Categories	Total Monthly Income						Total
	Below 10,000	10,000 to 20,000	20,000 to 30,000	30,000 to 40,000	40,000 to 50,000	Above 50,000	
Less than 35	0	0	2	2	3	0	7
	.0%	.0%	28.6%	28.6%	42.9%	.0%	100.0%
35 to 40	5	18	15	23	12	17	90
	5.6%	20.0%	16.7%	25.6%	13.3%	18.9%	100.0%
40 to 45	22	52	27	35	12	11	159
	13.8%	32.7%	17.0%	22.0%	7.5%	6.9%	100.0%
45 to 50	8	18	2	12	0	1	41
	19.5%	43.9%	4.9%	29.3%	.0%	2.4%	100.0%
50 to 55	1	0	1	1	0	0	3
	33.3%	.0%	33.3%	33.3%	.0%	.0%	100.0%
Total	36	88	47	73	27	29	300
	12.0%	29.3%	15.7%	24.3%	9.0%	9.7%	100.0%

Table 4.2(b)

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	49.716(a)	20	.000
Likelihood Ratio	54.058	20	.000
Linear-by-Linear Association	26.300	1	.000
N of Valid Cases	300		

Table 4.3(a)**Personal Finance Score and Educational Qualification**

Personal Finance Score Categories	Educational Qualification				Total
	Undergraduate	Graduate	Postgraduate	Professional	
Less than 35	0	1	4	2	7
	.0%	14.3%	57.1%	28.6%	100.0%
35 to 40	5	31	34	20	90
	5.6%	34.4%	37.8%	22.2%	100.0%
40 to 45	14	50	63	32	159
	8.8%	31.4%	39.6%	20.1%	100.0%
45 to 50	8	24	6	3	41
	19.5%	58.5%	14.6%	7.3%	100.0%
50 to 55	0	2	0	1	3
	.0%	66.7%	.0%	33.3%	100.0%
Total	27	108	107	58	300
	9.0%	36.0%	35.7%	19.3%	100.0%

Table 4.3(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.574(a)	12	.006
Likelihood Ratio	29.840	12	.003
Linear-by-Linear Association	12.402	1	.000
N of Valid Cases	300		

Table 4.4(a)**Personal Finance Score and Occupation**

Personal Finance Score Categories	Occupation							Total
	Doctor	Engineer	Supervisory	Non supervisory	School teacher	College/ University teacher	Others	Doctor
Less than 35	0	1	3	1	0	2	0	7
	.0%	14.3%	42.9%	14.3%	.0%	28.6%	.0%	100.0%
35 to 40	7	7	32	10	7	8	19	90
	7.8%	7.8%	35.6%	11.1%	7.8%	8.9%	21.1%	100.0%
40 to 45	10	16	42	33	19	13	26	159
	6.3%	10.1%	26.4%	20.8%	11.9%	8.2%	16.4%	100.0%
45 to 50	1	0	15	12	2	0	11	41
	2.4%	.0%	36.6%	29.3%	4.9%	.0%	26.8%	100.0%
50 to 55	0	0	1	2	0	0	0	3
	.0%	.0%	33.3%	66.7%	.0%	.0%	.0%	100.0%
Total	18	24	93	58	28	23	56	300
	6.0%	8.0%	31.0%	19.3%	9.3%	7.7%	18.7%	100.0%

Table 4.4(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.943(a)	24	.105
Likelihood Ratio	40.490	24	.019
Linear-by-Linear Association	.323	1	.570

Table 4.5(a)**Personal Finance Score Categories and Age at the time of House Construction**

Personal Finance Score Categories	Age at the time of constructing the house				Total
	Below 30 years	30 to 40 years	40 to 50 years	Above 50 years	
Less than 35	0	1	6	0	7
	.0%	14.3%	85.7%	.0%	100.0%
35 to 40	7	50	31	2	90
	7.8%	55.6%	34.4%	2.2%	100.0%
40 to 45	8	91	55	5	159
	5.0%	57.2%	34.6%	3.1%	100.0%
45 to 50	1	25	11	4	41
	2.4%	61.0%	26.8%	9.8%	100.0%
50 to 55	0	1	2	0	3
	.0%	33.3%	66.7%	.0%	100.0%
Total	16	168	105	11	300
	5.3%	56.0%	35.0%	3.7%	100.0%

Table 4.5(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.835(a)	12	.156
Likelihood Ratio	15.920	12	.195
Linear-by-Linear Association	.144	1	.705

Table 4.6(a)**Personal Finance Score Categories and Size of House Building**

Personal Finance Score Categories	Size of house building				Total
	Below 1000 sq.ft	1000 to 1500 sq.ft	1500 to 2000 sq.ft	2000 sq.ft and above	
Less than 35	0	5	0	2	7
	.0%	71.4%	.0%	28.6%	100.0%
35 to 40	8	54	25	3	90
	8.9%	60.0%	27.8%	3.3%	100.0%
40 to 45	28	83	40	8	159
	17.6%	52.2%	25.2%	5.0%	100.0%
45 to 50	10	19	11	1	41
	24.4%	46.3%	26.8%	2.4%	100.0%
50 to 55	2	1	0	0	3
	66.7%	33.3%	.0%	.0%	100.0%
Total	48	162	76	14	300
	16.0%	54.0%	25.3%	4.7%	100.0%

Table 4.6(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.930(a)	12	.015
Likelihood Ratio	22.326	12	.034
Linear-by-Linear Association	5.023	1	.025
N of Valid Cases	300		

Table 4.7(a)**Personal Finance Score and Total Cost of House Building**

Personal Finance Score Categories	Total Cost of House Building						Total Less than 5 Lakhs
	Less than 5 Lakhs	5 - 10 Lakhs	10 to 15 Lakhs	15 to 20 Lakhs	20 to 25 Lakhs	Above 25 Lakhs	
Less than 35	0	3	2	0	0	2	7
	.0%	42.9%	28.6%	.0%	.0%	28.6%	100.0%
35 to 40	9	36	24	16	2	3	90
	10.0%	40.0%	26.7%	17.8%	2.2%	3.3%	100.0%
40 to 45	22	60	39	28	1	9	159
	13.8%	37.7%	24.5%	17.6%	.6%	5.7%	100.0%
45 to 50	6	20	5	9	0	1	41
	14.6%	48.8%	12.2%	22.0%	.0%	2.4%	100.0%
50 to 55	1	2	0	0	0	0	3
	33.3%	66.7%	.0%	.0%	.0%	.0%	100.0%
Total	38	121	70	53	3	15	300
	12.7%	40.3%	23.3%	17.7%	1.0%	5.0%	100.0%

Table 4.7(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.081(a)	20	.392
Likelihood Ratio	20.853	20	.406
Linear-by-Linear Association	2.989	1	.084
N of Valid Cases	300		

Table 4.8(a)
Personal Finance Score Categories and Cost Overrun

Personal Finance Score Categories	Difference between actual cost and estimated cost					Total
	Less than 1 Lakh	1 to 2 Lakhs	2 to 3 Lakhs	3 to 4 Lakhs	4 to 5 lakhs	
Less than 35	2	1	2	0	2	7
	28.6%	14.3%	28.6%	.0%	28.6%	100.0%
35 to 40	30	38	13	7	2	90
	33.3%	42.2%	14.4%	7.8%	2.2%	100.0%
40 to 45	63	48	32	9	7	159
	39.6%	30.2%	20.1%	5.7%	4.4%	100.0%
45 to 50	21	17	2	0	1	41
	51.2%	41.5%	4.9%	.0%	2.4%	100.0%
50 to 55	2	1	0	0	0	3
	66.7%	33.3%	.0%	.0%	.0%	100.0%
Total	118	105	49	16	12	300
	39.3%	35.0%	16.3%	5.3%	4.0%	100.0%

Table 4.8(b)
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.312(a)	16	.029
Likelihood Ratio	26.637	16	.046
Linear-by-Linear Association	6.819	1	.009
N of Valid Cases	300		

Table 4.9(a)**Personal Finance Score and Balancing of Home Budget**

Personal Finance Score Categories	Home budget		Total
	Balanced	Not balanced	Balanced
Less than 35	5 71.4%	2 28.6%	7 100.0%
35 to 40	40 44.4%	50 55.6%	90 100.0%
40 to 45	65 40.9%	94 59.1%	159 100.0%
45 to 50	18 43.9%	23 56.1%	41 100.0%
50 to 55	2 66.7%	1 33.3%	3 100.0%
Total	130 43.3%	170 56.7%	300 100.0%

Table 4.9(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.356(a)	4	.500
Likelihood Ratio	3.363	4	.499
Linear-by-Linear Association	.276	1	.599
N of Valid Cases	300		

Table 4.10(A)**Personal Finance Score Categories and Total Loan Taken**

Personal Finance Score Categories	Total Loan Amount						Total
	NA	0 to 5 lakhs	5 to 10 lakhs	10 to 15 lakhs	15 to 20 lakhs	Above 20 lakhs	
Less than 35	0	1	3	2	1	0	7
	.0%	14.3%	42.9%	28.6%	14.3%	.0%	100.0%
35 to 40	1	26	36	16	9	2	90
	1.1%	28.9%	40.0%	17.8%	10.0%	2.2%	100.0%
40 to 45	3	64	59	16	13	4	159
	1.9%	40.3%	37.1%	10.1%	8.2%	2.5%	100.0%
45 to 50	1	21	14	4	1	0	41
	2.4%	51.2%	34.1%	9.8%	2.4%	.0%	100.0%
50 to 55	0	2	1	0	0	0	3
	.0%	66.7%	33.3%	.0%	.0%	.0%	100.0%
Total	5	114	113	38	24	6	300
	1.7%	38.0%	37.7%	12.7%	8.0%	2.0%	100.0%

Table 4.10(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.258(a)	20	.761
Likelihood Ratio	17.254	20	.636
Linear-by-Linear Association	10.664	1	.001
N of Valid Cases	300		

Table 4.11
Regional Outstanding Housing Loans of Scheduled Commercial Banks

(Rs. in crore)

Region / State/UT	2003		2004		2005	
	No. of A/cs	Amount Outstanding	No. of A/cs	Amount Outstanding	No. of A/cs	Amount Outstanding
<i>Northern Region Total</i>	324745	8847.42 (60.73)	460908	16223.69 (83.37)	2728238	23904.4 (47.34)
<i>North-Eastern Region Total</i>	51168	872.83 (101.00)	51658	948.42 (8.66)	201611	1774.91 (87.14)
<i>Eastern Region Total</i>	350881	5160.08 (39.06)	429764	7850.20 (52.13)	1280547	11162.52 (42.19)
<i>Central Region Total</i>	327828	5308.72 (46.33)	365121	8702.37 (63.93)	1466941	13132.03 (50.90)
<i>Western Region Total</i>	415731	10053.44 (39.90)	586151	19944.49 (98.38)	3301689	29488.74 (47.85)
Southern Region						
Andhra Pradesh	294235	4746.90	279997	7118.63	1302152	11183.51
Karnataka	223695	5294.18	279465	9369.49	1683107	14294.02
Kerala	195958	3402.46	270818	5559.10	1035382	8801.54
Tamil Nadu	257529	5304.67	305928	9507.54	1486868	12862.14
Lakshadweep	16	0.23	37	1.28	322	2.87
Pondicherry	4295	75.98	5179	121.22	21908	190.34
<i>Southern Region Total</i>	975728	18824.42 (52.28)	1141424	31677.26 (68.28)	5529739	47334.42 (49.43)
Total All India	2446081	49066.91 (49.48)	3035026	85346.43 (73.94)	14508765	126797.02 (48.57)

Source: Basic Statistical Returns, RBI (figures in parenthesis indicate percentage growth)

Table 4.12(a)**Personal Finance Score Categories and Regularity in Loan Repayment**

Personal Finance Score Categories	Are you regular in repaying your debts		Total
	Yes	No	
Less than 35	5	2	7
	71.4%	28.6%	100.0%
35 to 40	75	13	88
	85.2%	14.8%	100.0%
40 to 45	117	29	146
	80.1%	19.9%	100.0%
45 to 50	37	3	40
	92.5%	7.5%	100.0%
50 to 55	2	1	3
	66.7%	33.3%	100.0%
Total	236	48	284
	83.1%	16.9%	100.0%

Table 4.12(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.968(a)	4	.291
Likelihood Ratio	5.287	4	.259
Linear-by-Linear Association	.291	1	.590
N of Valid Cases	284		

Table 4.13(a)**Personal Finance Score Categories and Debt Trap**

Personal Finance Score Categories	Debt trap due to house construction		Total
	Yes	No	
Less than 35	3	4	7
	42.9%	57.1%	100.0%
35 to 40	28	62	90
	31.1%	68.9%	100.0%
40 to 45	53	106	159
	33.3%	66.7%	100.0%
45 to 50	19	22	41
	46.3%	53.7%	100.0%
50 to 55	2	1	3
	66.7%	33.3%	100.0%
Total	105	195	300
	35.0%	65.0%	100.0%

Table 4.13(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.623(a)	4	.328
Likelihood Ratio	4.461	4	.347
Linear-by-Linear Association	2.191	1	.139

Table 4.14(a)**Personal Finance Score and Awareness of Interest on the Investment**

Personal Finance Score Categories	Calculated the interest on the investment made		Total
	Yes	No	
Less than 35	6	1	7
	85.7%	14.3%	100.0%
35 to 40	49	41	90
	54.4%	45.6%	100.0%
40 to 45	85	74	159
	53.5%	46.5%	100.0%
45 to 50	20	21	41
	48.8%	51.2%	100.0%
50 to 55	2	1	3
	66.7%	33.3%	100.0%
Total	162	138	300
	54.0%	46.0%	100.0%

Table 4.14(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.504(a)	4	.477
Likelihood Ratio	3.878	4	.423
Linear-by-Linear Association	.969	1	.325
N of Valid Cases	300		

Table 4.15(a)**Personal Finance Score and Awareness of Loss Due to Delay**

Personal Finance Score Categories	Calculate the loss due to delay in completion		Total
	Yes	No	
Less than 35	2	5	7
	28.6%	71.4%	100.0%
35 to 40	32	58	90
	35.6%	64.4%	100.0%
40 to 45	49	110	159
	30.8%	69.2%	100.0%
45 to 50	18	23	41
	43.9%	56.1%	100.0%
50 to 55	2	1	3
	66.7%	33.3%	100.0%
Total	103	197	300
	34.3%	65.7%	100.0%

Table 4.15(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.091(a)	4	.394
Likelihood Ratio	3.957	4	.412
Linear-by-Linear Association	.856	1	.355
N of Valid Cases	300		

Table 4.16(a)**Personal Finance Score and Satisfaction Level in the House Constructed**

Personal Finance Score Categories	Satisfied with regard to the utility of your house			Total
	Somewhat satisfied	Dissatisfied	Satisfied	
Less than 35	2 28.6%	0 .0%	5 71.4%	7 100.0%
35 to 40	20 22.2%	1 1.1%	69 76.7%	90 100.0%
40 to 45	29 18.2%	4 2.5%	126 79.2%	159 100.0%
45 to 50	8 19.5%	2 4.9%	31 75.6%	41 100.0%
50 to 55	0 .0%	1 33.3%	2 66.7%	3 100.0%
Total	59 19.7%	8 2.7%	233 77.7%	300 100.0%

Table 4.16(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.852(a)	8	.086
Likelihood Ratio	7.303	8	.504
Linear-by-Linear Association	.250	1	.617

Table 4.17(a)**Personal Finance Score and Feeling of Good Investment**

Personal Finance Score Categories	The house constructed is a good investment			Total
	Yes	No	Not sure	
Less than 35	6	1	0	7
	85.7%	14.3%	.0%	100.0%
35 to 40	78	5	7	90
	86.7%	5.6%	7.8%	100.0%
40 to 45	114	36	9	159
	71.7%	22.6%	5.7%	100.0%
45 to 50	31	7	3	41
	75.6%	17.1%	7.3%	100.0%
50 to 55	3	0	0	3
	100.0%	.0%	.0%	100.0%
Total	232	49	19	300
	77.3%	16.3%	6.3%	100.0%

Table 4.17(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.848(a)	8	.086
Likelihood Ratio	16.706	8	.033
Linear-by-Linear Association	1.361	1	.243
N of Valid Cases	300		

Table 4.18(a)**Personal Finance Score and Awareness of the Concept of Economic House**

Personal Finance Score Categories	Aware of the concept of economic house		Total
	Yes	No	
Less than 35	5	2	7
	71.4%	28.6%	100.0%
35 to 40	70	20	90
	77.8%	22.2%	100.0%
40 to 45	130	29	159
	81.8%	18.2%	100.0%
45 to 50	34	7	41
	82.9%	17.1%	100.0%
50 to 55	3	0	3
	100.0%	.0%	100.0%
Total	242	58	300
	80.7%	19.3%	100.0%

Table 4.18(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.840(a)	4	.765
Likelihood Ratio	2.362	4	.669
Linear-by-Linear Association	1.427	1	.232
N of Valid Cases	300		

Table 4.19(a)**Personal Finance Score and Future Housing Investment Decision**

Personal Finance Score Categories	Will you construct a house like this		Total
	Yes	No	Yes
Less than 35	5	2	7
	71.4%	28.6%	100.0%
35 to 40	45	45	90
	50.0%	50.0%	100.0%
40 to 45	73	86	159
	45.9%	54.1%	100.0%
45 to 50	17	24	41
	41.5%	58.5%	100.0%
50 to 55	0	3	3
	.0%	100.0%	100.0%
Total	140	160	300
	46.7%	53.3%	100.0%

Table 4.19(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.234(a)	4	.264
Likelihood Ratio	6.418	4	.170
Linear-by-Linear Association	3.249	1	.071
N of Valid Cases	300		

Chapter 5

PERSONAL FINANCE OF LOW COST HOUSE OWNERS

Chapter 5

PERSONAL FINANCE OF LOW COST HOUSE OWNERS

“To Adam, paradise was home. To the good among the descendents home is paradise”

Hare

5.1 INTRODUCTION

In the last chapter described the personal financial practices of the salaried employees who had constructed their houses since year 2000. The discussion further showed that even those who followed personal financial practices had failed in controlling cost overruns in constructing houses. This chapter focuses the low cost housing, as it is one of the ways through which cost of house construction can be kept under control. The low cost construction will be more suitable to the low income or economically weaker sections. This technology can also be used by others to reduce the cost of house construction. Usually the people with more insight in financial matters are supposed to go for economic housing. An attempt is made in this chapter to see the personal financial practices of those who constructed economic houses and its impact on their personal finance.

5.1.1 UN Intervention

The UN declaration of 1987 as the International Year of Shelter for Homeless prompted the governments of most countries to pay attention to the housing problem of the poor. The national as well as state governments in India also planned and implemented several programmes to help the weak and needy. Though the strategy was to solve the problem by the year 2001, the available statistics indicate that

the absolute number of houseless population did not decline in any substantial manner.

5.1.2 State Intervention

State intervention in the housing sector, as part of its support and security strategy to help the poor, with several novel programmes and schemes has earned laurels. They are often projected as models to be emulated in the third world countries.

5.2 GOVERNMENT PRIORITY

But scientific studies on the suitability and acceptability of public housing schemes clearly indicate that partial financial assistance did not help the target groups to satisfy their housing needs. Non availability of appropriate building technology, low-cost raw materials and poor beneficiary participation in the building process are reported to be the major constraining factors. It has been pointed out that (a) technology is often unavailable (b) even if technology is available, it is neither affordable nor acceptable to the EWS and (c) local building technology institutions are not responsive to the specific needs of the economically weaker sections.

The housing boom experienced in the state of Kerala since the mid-seventies paved the way for intermediation in different layers of modern construction process.

The government also accorded the highest priority in providing housing to economically weaker sections. Several novel housing programmes and schemes focused on the poor have been launched and successfully implemented during this period. About 80% of the housing support provided by the state has gone to EWS. The subsidy provided to EWS houses has increased from Rs.9,000 in 1992 to Rs.35,000 per house in 1998 and again to Rs. 75,000 in 2003 for a

few specified categories. During the 9th Five-Year Plan period a total amount of about Rs. 1,063 crore was mobilized from financial institutions for housing. Local self-government institutions gave financial support to construction of 2,82,281 houses during 1997-2001. The District Panchayats of Thiruvananthapuram, Kollam and Thrissur formulated a Total Housing Programme with focus on EWS.

Technical change is generally evolutionary and is based on knowledge, experience and skills of both innovators and end-users. 'The generation of new technological knowledge and the introduction of new technologies can be viewed as the cause and the consequence of punctuated economic growth and increasing returns' (Arrow, 2000). A country's technical progress results from a combination of research, invention, development and innovation development thinking'.

5.3 APPROPRIATE TECHNOLOGY

Important objectives of such R&D programmes are: (a) developing suitable building materials from locally available raw materials; (b) improving the durability of traditional building materials by making suitable modifications in the composition of raw materials or by modifying manufacturing process; (c) evolving new construction technologies; and (d) developing new building technologies to improve the speed and reduce the cost of construction. The concern of appropriate Technology (AT) is to supply materials for the basic structure to build structurally durable and functionally adequate houses at a cost the poor sections will be able to bear (UNIDO, 1980).

For instance, (a) the traditional thatched roof often looks beautiful but it is non-durable. Thatch gives cool interior, but it needs annual replacement. A tile roof is durable but it needs costly timber. Modern ferro-cement shells and other new concrete systems of roofing absorb and retain lot of heat from the sun. Joints also leak from constant expansion; (b) corrugated iron sheets corrode after a few years and

transmit the sun's radiation into the house and often make extra expense times the costs to structure on fixtures and fittings and the associated services (Parry, 1980); (c) Asbestos-cement-sheet roofing is expensive and a health risk is involved with asbestos dust (Ibid).

The primary objective of appropriate building technology is to provide durable houses at minimal affordable costs. The proponents of AT argued that the poorer sections of the community are to be helped to build structurally durable and functionally adequate houses at a cost they will be able to bear. The materials should be such as are available locally and that do not require much specialised skill in their use. The basic purpose of such a strategy is to enable the poor and the needy people to own dwellings that would serve as a store of value and an appreciating asset. That in turn would relieve them from continual maintenance and eventual replacement of their non-durable dwellings. Durable houses become capital assets. AT for the production of durable building materials in the developing countries has thus an important social dimension or redistributive implication.

5.4 COST REDUCATION METHODS

Following are the measures to reduce the cost of house construction:

Roofing Alternatives developed in Premier R & D institutions

SI No	Material	Inputs
1	Composite T-beam Roof	Pre-cast tile panels, pre-cast concrete or ferro-cement or cuddapah slabs
2	Ribbed Slab	Pre-cast tile panels, pre-cast concrete or ferro-cement or cuddapah slabs
3	Modified Filler Slab Roof	Mangalore tiles, reinforced concrete
4	Hourdi Tile Roof	Similar to filler slab roof. The filler material here is hourdi or baliyapatanam tile

5	Micro Concrete Roofing (MCR) tiles	MCR is a sloping roof tile made up on cement fine aggregate and colouring pigments mixed in water
6	Un-Reinforced Pyramidal Roof	Bricks, cement, sand, stone aggregate and reinforcing steel
7	Coconut Shell Panel System	Coconut shells, cement, sand, stone, mild steel bars
8	Brick Funicular Shells	Bricks, cement mortar
9	Precast RC Filler Slab	Mixer, moulds for blocks and shuttering and vibrator for slabs; fly ash, cement, lime, steel and aggregates
10	Precast Thin Ribbed Slab	Moulds, shuttering panels, mixers, vibrators, cement and aggregates
11	Precast Concrete Panel System	Moulds, vibrators, cement, sand, stone, aggregate and reinforcing steel
12	Precast RC Plank and Joist	Moulds, light hoisting equipment, cement, aggregate and steel reinforcement
13	Prefab Brick Panel System	Burnt clay bricks, cement, sand, coarse aggregate and reinforcing steel
14	Fire Retardant for Thatch Roofing	Bamboo, non-erodable mud plaster (bitumen + kerosent + mud) and thatch material
15	Madras Terrace Roofing	Burnt bricks, lime mortar, concrete and madras tiles
16	Jack Arch Roofing	Bricks, cement concrete and steel

5.4.1 Alternative for all Materials

SI. No	Materials	Inputs
1	Stabilised Mud Blocks	Clay, sand and any stabilising agent (cement mortar, lime mortar, soil-cement mortar, lime-pozzolana mortar or mud mortar)
2	Building Blocks from Laterite soils (Latoblocks)	Laterite soil is mixed with a binder and moulded into blocks in a press
3	Clay-Fly Ash Bricks	Clay and fly ash are mixed and bricks are moulded and fired in the usual way
4	Sand -Lime Bricks	Siliceous sand and hydrated lime are mixed and moulded under pressure

Alternative materials for Mortars and Plasters

SI No	Material	Inputs
1	Stabilised mud mortars and soil-based plasters	Cementations binder could be made up of mud, lime, cement or combinations of them. Lime pozzolana cements could also be used.
2	Rice Husk Hydraulic Pozzolana	Rice husk, clay and
3	Non-erodable mud plaster	Sand-base mud and ordinary soil, wheat or paddy straw
4	Multi-Blend Cement	Cement clinker, flyash, blast furnace slag and low grade gypsum

Alternatives for doors and windows and finish

- Ferro cement products
- Coir - cement board
- Fibrous Gypsum plaster board
- Coir - cashew nut shell liquid board
- Coconut husk particle board
- Glass reinforced gypsum composite Polycoir

5.5 UN GUIDELINES

The developing (or the Third World) countries were the worst sufferers of the housing problem because of the high per capita cost involved in its solution. Though many countries experienced housing shortage, little cohesive approach had emerged to address this question until recently. The major factors, which point to the possibility of solving the question, are the availability of low-cost and sustainable techniques in house construction, developed land sites, and indigenous construction materials. Still another crucial factor that calls for special attention in house construction is the gender dimension, the relationship between women and housing.

It is against this backdrop that a world body like the United Nations entered the scene. A large amount of research and awareness

creation efforts has followed. Moreover, the year 1987 was declared by the UN as the International Year for Shelter for the Homeless (IYSH). The most comprehensive strategic initiative from the UN in the housing sector was the declaration of the Global Strategy for the Year 2000 (GSS, 2000). Two important aspects put forward by the UN while formulating housing policies and schemes are the following:

- i) The government should assume the role of a facilitator only - i.e., an enabling approach on the part of government;
- ii) While the main emphasis is on the low-income population groups, it is not limited to any one group, but, rather, is based on a comprehensive view of all demand factors.

According to the Global Policy, the public sector should concentrate on areas like infrastructure provision, which people are not able to meet themselves, rather than attempt to shoulder the entire burden of shelter production and distribution. Public sector should facilitate the shelter production efforts of other participants, including the formal and the informal private sector, small entrepreneurs, civic and community groups, voluntary organisations, and private individuals. The global initiatives thus imparted a holistic approach to the housing question.

5.6 GSS 2000

The main objective of the Global Strategy is to facilitate adequate shelter for all by the year 2000. 'Shelter for all' means affordable shelter for all groups in all types of settlements, meeting basic requirements of tenurial security, structural stability, and infrastructure support with convenient access to employment and community services and facilities.

5.7 HOUSING SCHEMES IN KERALA: A BRIEF HISTORICAL ACCOUNT

An ambitious 'One Lakh Housing Scheme' (OLHS) was successfully implemented in Kerala during 1971-76. It was a Centrally-sponsored

scheme implemented through the community blocks in the State with the active support of NGOs. The scheme aimed at constructing 100 houses in every *panchayat* of the State. Type design of houses, clustered pattern, active involvement of voluntary agencies, etc., were the highlights of the scheme. Though the initial plan was to construct one lakh houses, only about sixty thousand houses were built due to constraints of funds.

Another important scheme implemented by the State in the housing sector is the SASH Housing Scheme. SASH stands for Subsidised Aided Self-Help. One-third of the cost was given as subsidy by the government. It was aided due to the involvement of voluntary agencies and the governmental assistance other than funds that were rendered to the beneficiaries. The scheme was launched in 1983 and under this scheme, 32,000 houses were constructed.

Apart from these two schemes, many voluntary agencies and co-operative bodies are implementing housing schemes on their own in the State. The presence of a large volume of the educated unemployed in the rural workforce, and a not-so-bright housing situation in the State, as well as the potential of the housing sector to offer work to skilled, semiskilled, and unskilled labour, open up new possibilities for solving the dual problems of unemployment and housing, through well thought-out participatory programmes.

5.7.1 Centrally Sponsored Housing Schemes

Though housing is a State subject, 80 per cent of funds in rural housing is received from the Central Government. Such a high degree of participation of the Centre indicates its concern in this sector. Several schemes tuned to the policies of the Five-Year Plans have been implemented right from the inception of Five-Year planning. Table 4.1 gives a sample list of rural development schemes implemented under various Five-Year Plans.

As seen from the Table, a scheme for housing was introduced as early as in 1957. During the Sixth, Seventh, and Eighth Plan periods, increased attention is seen to have been given to rural housing.

5.7.2 Jawahar Rozgar Yojana (JRY) and rural housing

Jawahar Rozgar Yojana (JRY) is the massive, employment-generating, Central scheme in operation since 1989. This scheme envisages asset creation in the rural areas while generating employment opportunities to the rural population. Schemes benefiting SC/STs, below the poverty line, may also be taken up under JRY.

The ratio between the shares of the Central and the State governments in financing of JRY is 80:20, which, as already stated, shows the high involvement of Central Government in the rural development sector. The total JRY allocation is apportioned in the ratio 70:15:15 among the three tiers (district, block, and village) of the *panchayat* system; 22.50 per cent of the funds is exclusively earmarked for SC/ST beneficiaries.

In general, houses are constructed by *panchayats* for SCs/STs from their allotted share. So, in a *panchayat*, housing schemes implemented by District *panchayat*, Block *panchayat*, and *grama* (village) *panchayat* come up. Earlier when the JRY allocation for District Rural Development Authority (DRDA) was 20 per cent, the scheme used to be known as '22.50 per cent of 20 per cent scheme'.

JRY being a Centrally-sponsored scheme, designed for implementation throughout India, suffers from an important limitation as was pointed out by S.R Maheshwari.

"It is too much to expect a central agency to identify the priorities in each region. At the same time, the experience of handing over the funds to the panchayat raj institutions has not been an unmixed success. Indeed, there remains unresolved a basic question. The

dilemma between the limits of centralised functioning and the embarrassment of controlled decentralised finances is genuine, and a satisfactory solution is still awaited."

The three Centrally-sponsored schemes selected for the study are IAY, MWS, and CAPART-COSTFORD, a non-governmental, voluntary agency. Since MWS, originally meant for irrigation wells, is diverted into housing in Kerala and adheres to the norms of IAY, a detailed description of IAY will cover MWS as well.

The funds for CAPART-COSTFORD scheme come from IAY. Hence, the basic norms of the CAPART-COSTFORD scheme will also be in line with those of IAY with, of course, major differences in the participatory role of beneficiaries and in the pattern of disbursement of funds. In respect of interventions by voluntary agencies, this scheme shows differences with respect to implementation.

5.7.3 Indira Awaas Yojana (IAY)

In June 1985, the Union Minister for Finance made an announcement in Parliament earmarking a part of Rural Landless Employment Guarantee Programme (RLEGP) funds for construction of micro-habitats and housing units for Scheduled Castes, Scheduled Tribes, and freed bonded labourers with a view to making the rural employment programmes more effective. IAY was created in pursuance of this announcement. Programmes like National Rural Employment Programme (NREP) and RLEGP were merged into a single rural employment programme from 1 April 1989 and came to be known as Jawahar Rosgar Yojana (JRY). IAY was made one of the three schemes under JRY.

The Ministry of Rural Areas and Employment has been implementing various employment and area development programmes for the benefit of the rural population particularly people below the poverty

line. These programmes have different schemes and sub-schemes with specific objectives.

The government felt subsequently that these different schemes could be rationalised and simplified so that those with mutually exclusive objectives could be implemented independently. Accordingly, a committee was set up by the Government of India to suggest measures to streamline and restructure JRY and other rural employment and beneficiary-oriented programmes. Acting on the recommendations of the Committee, the Ministry decided to merge the Rural Housing Schemes with Indira Awaas Yojana, and make it an independent scheme with effect from 1 January 1996.

5.7.4 AT for Cost Reduction

An attempt was made to see to what extent appropriate technology was used to reduce the cost of construction of the houses. In fact this technology is called low cost housing technology. The objective of this was to find out to what extent the cost was reduced by using this technology. It is also an objective to find out the personal financial practices of low cost house owners because the very idea of low cost house construction is a clear indication of personal financial practices of the house owners. The following is the result of survey conducted in this direction.

5.8 RESULTS OF THE SURVEY

A comparison of the non-low cost (Table 5.1(a)) house owners and low cost house owners with regard to the time taken for completion reveals that 11 out of 300 (3.7%) non-low cost house owners and 11 out of 30 (36.7%) of low cost house owners were able to complete their house construction in less than six months. 109 out of 300 (36.3%) of non-low cost house owners and 17 out of 30 (56.7%) of low cost house owners took six to 12 months for completing their house construction.

94 out of 300 (31.3%) of non low cost house owners into 2 out of 30 (6.7%) low cost house owners took 12 to 18 months for the completion of their house construction. 49 (16.3%) out of 300 non low cost house owners took 18 to 24 months for completing their house construction and 37 out of 300 (12.3%) non low cost house owners took more than 24 months for completing the house construction.

The association between time taken for completion and ownership category based on house type is statistically tested in Table 5.1(b) by using chi square test. Since the significance level of the likelihood ratio is less than 0.05 it is concluded that there is statistically significant association between the categories of house ownership and time taken for house construction.

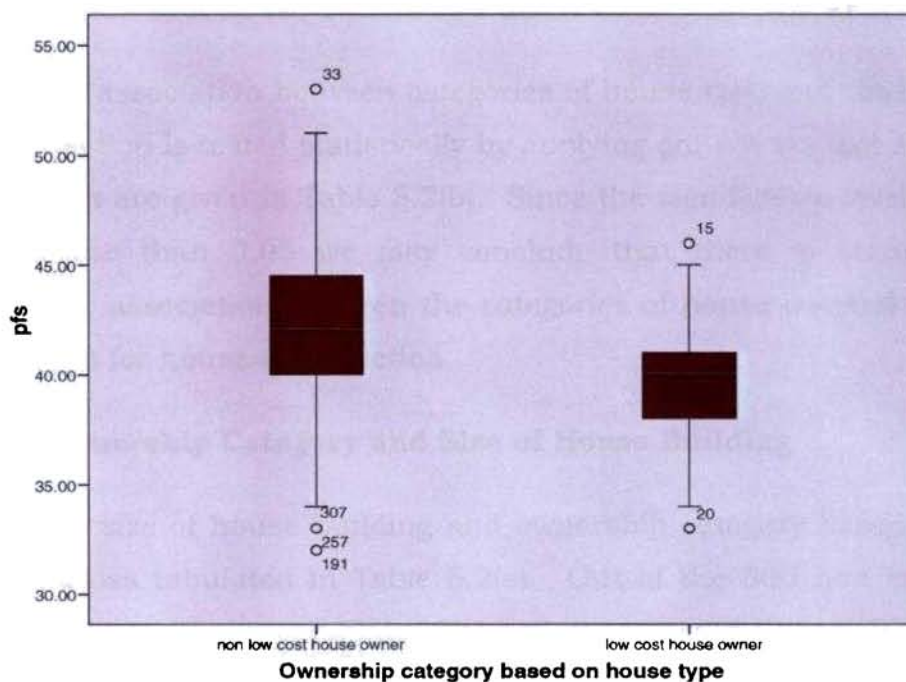
It may be noticed that the low cost house owners took less time than the non low cost house owners for completing their house construction. Not even a single low cost house owner had taken more than 18 months for the building construction whereas 86 respondents (28.6%) among the non low cost house owners took more than 18 months for completing their house construction.

5.8.1 Low cost Vs. Non low cost housing

Applying independent sample t-test makes a comparison of the personal financial practices between non low cost house owners and low cost house owners. The mean value of personal finance score of the 300 non low cost house owners is 42.1433 and the mean value of personal finance score of 30 low cost house owners is 39.433. The difference between the mean values of personal finance score obtained for both the categories of house owners are visible in the following diagram (Chart 5.1). The independent sample t-test shows that the difference between the mean values of personal financial score is statistically significant among the low cost and non low cost house owners.

Chart 5.1

Chart Showing Personal Financial Score Based on House Type



As per the diagram where score of personal financial practices is taken Y-axis and ownership house category on X-axis. It is clear from the picture that average personal financial score of non low cost house owners is more than that of the low cost house owners. Therefore it is concluded that the non low cost house owners are having a better personal financial planning than the low cost house owners. Hence the hypothesis 4, the house owners who constructed low cost houses have good personal financial planning is disproved.

5.8.2 Time Taken for Completion and House Type

An attempt was made to see whether there is an association with regard to the time taken for completion of the house based on low cost—non low cost association. As per the Table 5.1(a) 11 respondents from both the groups have taken less than six months to complete the house whereas 109 respondents from non-economic house category and 17 economic house category have taken six to 12 months to complete the process. 94 of the non low cost house owners and two of

the low cost house owners have taken 12 to 18 months to finish the house construction. With regard to 49 non low cost house owners they have taken 18 to 24 months to complete the house construction while 37 of non low cost house owners had taken 24 months and above.

The association between categories of house type and time taken for completion is tested statistically by applying chi-square test and the test values are given in Table 5.2(b). Since the significance level of the test is less than 0.05 we may conclude that there is statistically significant association between the categories of house ownership and time taken for house construction.

5.8.3 Ownership Category and Size of House Building

The size of house building and ownership category based house type is cross tabulated in Table 5.2(a). Out of the 300 non low cost house owners 48 respondents (68%) had constructed their houses in a size less than 1000 sq.ft. whereas not even a single house owner of low cost house owner had constructed a house in that size. 162 house owners out of 300 (54%) non low cost house owners had constructed their houses in the size ranging from 1000 to 1500 sq.ft. whereas 8 out of 30 (26.7%) house owners of low cost houses had constructed their houses of similar size. 76 out of 300 (25.3%) of non low cost house owners had constructed their houses in a size between 1500 and 2000 sq.ft. whereas 22 out of 30 (73.3%) of the owners of low cost houses constructed their houses in the same size. 14 out of 300 (4.7%) of the non low cost house owners had constructed their houses with the size above 2000 sq.ft. whereas not even a single house owner of low cost house had constructed a house in that size. But it may be noticed that the low cost house owners had constructed their houses comparatively in bigger sizes. All the respondents among this category had constructed their houses in the size ranging from 1000 to 2000 sq.ft.

The association between ownership category based on house type and size of house building is tested statistically by using chi-square and the significance values are shown in Table 5.1(b). Since the significance level of the chi-square is less than 0.05, it is concluded that there is statistically significant association between the categories of house ownership and size of the house building. Or in other words with regard to the size of the house even low cost house owners did not reduce the size of the to reduce the investment which points to the fact that they had something else in the mind when they constructed the house.

5.8.4 Ownership Category and Area of Land Owned

A cross tabulation of area of land owned and ownership category based on house type is made in Table 5.3(a). Among the 300 non low cost house owners, 58 respondents (19.3%) had constructed their houses in their own land in less than 10 cents whereas out of the 30 house owners of low cost houses three persons (10%) had constructed their houses in less than 10 cents. 203 respondents out of 300 (67.7%) had constructed their houses in an area of land between 10 and 25 cents whereas 16 out of 30 (53.3%) of the owners of low cost houses had constructed their houses in the area of 10 to 25 cents of land. 17 out of 300 (5.7%) non low cost house owners had constructed their houses in between 25 to 50 cents of land whereas 4 out of 30 (13.3%) of owners of low cost houses had constructed their houses in the land within the same area. 22 out of 300 (7.3%) non low cost house owners had constructed their houses in the land above 50 cents and 7 out of 30 (23.3%) owners of low cost houses had constructed their houses in more than 50 cents of land.

It may be noticed that majority of the house owners of low cost houses were having more land in their possession, 90% of low cost house owners own land above 10 cents.

The association between area of land owned and ownership category based on house type is statistically tested using chi-square and the test values are given in Table 5.3(b). Since the significance level of chi-square test is less than 0.05 it is concluded that there is statistically significant association between the categories of house ownership and area of land owned.

5.8.5 Ownership Category and Cost of House Building

Table 5.4(a) shows that among the 300 non low cost house owners, only 38 persons (12.7%) were able to construct their houses at a cost less than Rs.5 lakh whereas 28 out of 30 (93.3%) owners of low cost houses were able to construct their houses at a total cost of Rs.5 lakh. Out of the 300 non low cost house owners 121 persons (40.3%) had constructed their houses at a total cost ranging between Rs.5 lakh and Rs.10 lakh and two out of 30 (6.7%) house owners of low cost houses had incurred a total cost within that range. 70 out of 300 (23.3%) non low cost house owners had incurred a total cost of Rs.10 lakh to Rs.15 lakh for the house building, 53 out of 300 (17.7%) non low cost house owners had constructed their houses with a total cost in the range Rs.15 lakh to Rs.20 lakh, three out of 300 (1%) of non low cost house owners had constructed their house at a total cost between Rs.20 and Rs.25 lakh and 15 out of 300 (5%) non low cost house owners had constructed their houses at a total cost of more than Rs.25 lakh.

It is worth to noting that not even a single house owner of low cost house had incurred a total cost of more than Rs.10 lakh for his house building whereas 141 non low cost house owners (45%) had incurred a total cost of more than Rs.10 lakh for the completion of their house building.

The association between ownership categories and total cost of house building is tested using chi-square and the various test values

are shown in Table 5.4(b). Since significance level of the chi-square test is 0.05 it is concluded that there is statistically significant association between the categories of house ownership and the total cost of house building.

5.8.6 House Type and Cost Overrun

As per Table 5.5(a) one hundred and eighteen out of 300 (39.3%) non low cost house owners had incurred less than Rs.1 lakh additional costs than the estimated costs whereas 26 out of 30 (86.7%) owners of low cost houses had the difference in actual cost and estimated costs of less than rupees one lakh. Among the house owners who had incurred additional expenditure in between rupees one lakh and rupees two lakh than the estimated cost, 105 out of 300 (35%) are from the non low cost house owners and two out of 30 (6.7%) are from the group of low cost house owners. From the house owners who had incurred additional expenditure between Rs.2 and Rs.3 lakh than the estimated cost, 49 out of 300 (16.3%) are among the non low cost house owners and no one among the low cost house owners had such a difference. From the house owners who had additional expenditure in between three and four lakhs of rupees than the estimated costs, 16 out of 300 (5.3%) are from the non low cost house owners and two out of 30 (6.7%) are from the category of low cost house owners. 12 out of 300 (4%) house owners of non low cost houses had incurred additional expenditure in between Rs.4 to Rs.5 lakhs than their estimated costs but none among the low cost house owners had such a difference.

The association between cost overrun and house type ownership is tested statistically by using chi-square values and the values are shown in Table 5.5(b). Since the significance level of the test is less than 0.05 it may be concluded that there is statistically significant association between the categories of house ownership and difference in actual and estimated costs. It may be noted that even the low cost house owners have failed to contain the cost overrun. Again the cost

overrun had an association with that of the cost overrun than non low cost house owners. Hence it can be categorically said in this activity no personal financial practices are reflected and the actual cost was running away from the estimated cost.

5.8.7 Low cost Housing: The Source of Idea

An attempt was made to understand the source of information that led the house owners to construct low cost house. The Table 5.6 shows the multiple responses of the respondents. Three main sources were identified viz., literature, discussion and media. Among this three, literature and discussion had the equal response of 25 each while media had poor response of five. Here it may be remembered the responses of non low cost house owners to the question why the respondents did not go for non low cost houses. One thing was obvious from the answers given by them that is there is some kind of social stigma attached to low cost housing. Lack of awareness or lack of proper advice with respect to construction of low cost houses points fingers to the institutions set up for promoting construction of low cost houses. It can be concluded that low cost housing technology is not properly propagated. Further it is concluded that it was the literature and the discussion that gave birth to the idea of low cost house owners.

5.8.8 Measures to Reduce Cost

There are many methods by which one could reduce the cost of construction. Eleven different methods to reduce the cost of construction were identified from the related literature and also from the discussion with experts. The methods practically used by the low cost house owners in relation to those identified methods are analysed in Table 5.7. Among the 11 different methods to reduce the cost 30 respondents had used filler materials for concrete roofing. All the low cost house owners (100%) had used country bricks only for the construction. 29 respondents (96.7%) have used rat trap holes instead

of windows and 28 people (93.9%) did not give concrete belting. 27 (90%) respondents had adopted two cost reduction techniques in their house. Firstly, they did not use concrete columns for the construction and secondly they used wooden door frames only for outside walls. Out of 300 respondents, 26 people (86.7%) did the plastering only for the inside walls and there are four house owners who did not give plastering either to the inside or to the outside walls. Nineteen out of 300 house owners (63.3%) had used inbuilt furniture in the houses constructed.

5.8.9 Influences on Decision to Construct the Low Cost House

The influencing factor of the decision to construct low cost houses by the 30 respondents were analysed in Table 5.8 by using multiple response ranking technique. Out of the 30 respondents 24 respondents had ranked reduction in overall cost, as was the first priority. Among the 30 respondents 19 had ranked the construction of low cost houses for a fashion as two. Out of the 30 respondents 25 had ranked opinion of others as the influencing factor in constructing the low cost house as three. There are 24 out of 30 respondents categorically said that their influencing factor in constructing the low cost house is the reduction in overall cost. Hence reduction in overall cost is ranked first as the influencing factor. There are 19 respondents who had responded that they constructed low cost houses for a fashion.

As per this analysis reduction in overall cost as the influencing factor in low cost construction is ranked as one and opinion of other is ranked as two and the construction for a fashion is ranked as three.

5.8.10 Level of Satisfaction in Low Cost Construction

The level of satisfaction of the low cost house owners is measured by using a 5-point scale and the scale is given are satisfied, somewhat

satisfied, neither satisfied nor dissatisfied, somewhat satisfied and dissatisfied. The alternate variables given are functional utility, security feeling, beauty of the house, life period of the house, resale value, cost of house building, coolness inside the house, ventilation, income tax benefits, ease in loan repayment, social status, maintenance cost and building tax. Among these variables, with regard to the building tax, only 6.6% of the low cost house owners had expressed their opinion and the remaining were silent. Hence the analysis on the level of satisfaction with regard to the building tax on low cost houses is dropped. The responses of the respondents are tabulated in Table 5.9.

The analysis reveals that 100% of the low cost house owners are satisfied with regard to the coolness inside the house. Hence it is concluded that all the low cost house owners are satisfied with regard to the coolness in their house.

93.3% of the house owners are satisfied with regard to the cost of house building and in this aspect 3.3% are somewhat satisfied and the remaining 3.3% are neither satisfied nor dissatisfied. So it may be concluded that the low cost house owners are satisfied with regard to the cost of their house building.

With regard to the functional utility 86.7% low cost house owners are satisfied and the remaining 13.3% are somewhat satisfied. It may be noted that nobody had expressed dissatisfaction with the regard to the functional utility. Hence it is concluded that all the low cost house owners are satisfied with regard to the functional utility.

With regard to the ventilation in the low cost houses constructed 53.3% of the house owners are satisfied, 43.3% are somewhat satisfied and 3.3% are neither satisfied nor dissatisfied. So it may be concluded that majority of the low cost house owners are satisfied with regard to the ventilation in their houses.

With regard to beauty of the house 50% of the house owners are satisfied, 46.7% are somewhat satisfied and 3.3% are neither satisfied nor dissatisfied. So it is concluded that majority of the low cost house owners are satisfied with regard to the beauty of their house.

With regard to the variable ease in loan repayment 60% of the house owners are somewhat satisfied and the remaining 40% are satisfied. Therefore it is concluded that the low cost house owners are satisfied with regard to the repayment of their housing loan.

With regard to the security feeling in low cost houses, 73.3% house owners are somewhat satisfied, 16.7% are satisfied and 10% are neither satisfied nor dissatisfied. Hence it may be concluded that majority of the low cost house owners are satisfied with regard to the security feeling of their houses.

With regard to the income tax benefits 90% of low cost house owners neither satisfied nor dissatisfied and the remaining 10% are somewhat dissatisfied. It may be noted that among the low cost house owners nobody is satisfied with regard to the income tax benefits on house construction.

With regard to the life period of the house construction, 76.7% of the house owners are neither satisfied nor dissatisfied, 16.7% are somewhat satisfied, 3.3% are satisfied and the another 3.3% are somewhat dissatisfied.

With regard to the social status 60% of the low cost house owners are neither satisfied nor dissatisfied, 33.3% are somewhat satisfied, 3.3% are satisfied and the remaining 3.3% somewhat dissatisfied.

With regard to the resale value of the low cost houses 73.3% of the house owners are somewhat dissatisfied, 23.3% are neither satisfied nor dissatisfied and the remaining 3.3% are dissatisfied. It

may be noted that in this aspect nobody had expressed satisfaction and hence it is concluded that the low cost house owners are dissatisfied with regard to the resale value of their houses.

With regard to the maintenance cost of low cost houses 36.7% of the house owners are somewhat dissatisfied, 30% are somewhat satisfied, 26.7% are dissatisfied, 3.3% are neither satisfied nor dissatisfied and the other 3.3% are satisfied. It may be noted that only 33.3% of the low cost house owners had expressed some kind of satisfaction with regard to the maintenance cost of their house. Hence it is concluded that the low cost house owners are dissatisfied with regard to the maintenance cost of their houses.

5.8.11 Important Factors Influencing the Satisfaction Level of Low Cost Housing Construction

Data analysis to identify the important factors influencing the satisfaction level of low cost housing construction is attempted using the multi-variate technique *Factor Analysis*.

Factor analysis attempts to identify underlying variables, or factors that explain the pattern of correlations within a set of observed variables. It is often used in data reduction to identify a small number of factors that explain most of the variants observed in a much large number of manifest variables.

Table titled Component Matrix displays coefficients or loadings that relate the variables to the four factors (Components). Loadings are the correlations of the variables with the factors. The correlation between Variable 3 and factor 1 is .777, while the correlation with factor 2 is -.094 only, correlation with factor 3 is -.110 and correlation with factor 4 is -.141. Thus, we can say that Variable 1 is associated with factor 1.

Continuing with this analysis, we find the different variables connected with the different factors. These different factors are named accordingly.

Table 5.10
Component Matrix (a)

No.	Variables	Component			
		1	2	3	4
1	Functional Utility	.027	-.387	.670	.260
2	Security Feeling	.751	.061	.363	.280
3	Beauty of the House	.777	-.094	-	-.141
4	Life Period of the House	.668	.537	-	-.006
5	Resale Value	.049	.524	.260	-.589
6	Cost of House Building	-.060	-.700	.603	.137
7	Ventilation	.732	.147	.174	.149
8	Income Tax Benefits	.061	-.441	-	.221
9	Ease in Loan Repayment	-.347	.607	.119	.531
10	Social Status	.241	.492	-	.355
11	Maintenance Cost	-.559	.699	.189	.139
12	Building Tax	.064	.210	.746	-.194

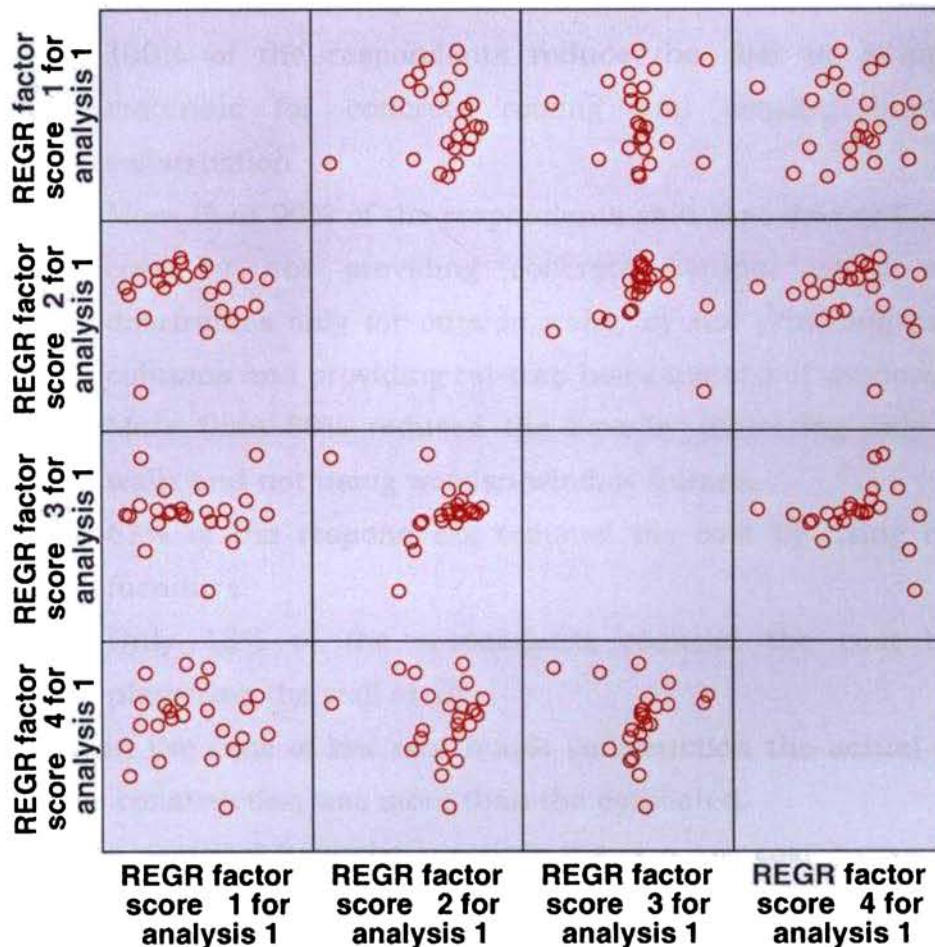
Extraction Method: Principal Component Analysis. A 4 components extracted.

In short, the important factors influencing the satisfaction levels of low cost housing can be identified as follows: initially identify the first factor as Physical aspects constituted by the variables, beauty of the house, security feeling and ventilation. The second factor is found to be Cost aspects constituted by the variables, cost of building,

maintenance cost ease in loan repayment and life period of the house. The third factor is found as Functional and financial utility aspects constituted by building tax, income tax benefits and functional utility. Fourth and the last significant factor may be named as Social acceptance constituted by resale value and social status.

Although the linear correlation between the components is guaranteed to be 0, we should look at plots of the component scores to check for outliers and nonlinear associations between the components. The factor score matrix Chart No.5.2 given below assures the results are reliable since there are no linear or nonlinear correlations visible between the scores.

Chart 5.2



1. With regard to the level of satisfaction in construction of low cost houses:
 - a) 100% of the respondents appreciate the coolness in the house and
 - b) All are satisfied with the functional utility and ease in loan repayment.
 - c) More than 90% of the respondents were satisfied with the feeling of security, beauty of the house, ventilation and cost of house building.
2. Majority (76%) of the respondents were not happy with the resale value and also with the maintenance cost.
3. Majority remained neutral with regard to the life span of the building, income tax benefit and social status.
4. With regard to the measures taken to reduce the cost the Multiple Response Analysis showed:
 - a) 100% of the respondents reduce the cost by using filler materials for concrete roofing and country bricks for construction.
 - b) More than 90% of the respondents said that they reduced the cost by not providing concrete belting, using wooden doorframes only for outside walls, by not providing concrete columns and providing rat-trap holes instead of windows.
 - c) More than 80% reduced the cost by plastering only inside walls and not using wooden window frames.
 - d) 63% of the respondents reduced the cost by using in-built furniture.
 - e) Only 13% of the respondents reduced the cost by not plastering the wall at all.
5. Even in the case of low cost house construction the actual cost of house construction was more than the estimated.
6. On the personal financial practices the non low cost house owners had a better score than the low cost house owners.

7. The Factor Analysis showed that the first principal component extracted was for the physical aspect of the house building and not the cost aspect. The reduction in the cost of construction was resulted in the increase of size of the house. Hence it is concluded that there is no correlation between personal financial score and low cost house owners.

5.9 CONCLUSION

The popular belief that the low cost houses are constructed by those who people who are very conscious about financial matters and with a good personal financial score stands disproved. Even with regard to factors like time taken, cost overrun, investment in housing, size of the house and time taken for completion both the non low cost house owners and low cost house owners have shown a statistically significant association. Personal financial score shows that non low cost house owners have a better score than the low cost house owners. To top it the factor analysis shows the low cost house owners constructed the low cost house not for the purpose of saving money but for other factors. This in fact is a strange revelation.

Chapter 5 - TABLES

Table 5.1(a)

House Type and Time Taken for Completion

Time taken for completion	Ownership category based on house type		Total
	non low cost house owner	low cost house owner	
Less than 6 months	11	11	22
	3.7%	36.7%	6.7%
6 to 12 months	109	17	126
	36.3%	56.7%	38.2%
12 to 18 months	94	2	96
	31.3%	6.7%	29.1%
18 to 24 months	49	0	49
	16.3%	.0%	14.8%
24 months and above	37	0	37
	12.3%	.0%	11.2%
Total	300	30	330
	100.0%	100.0%	100.0%

Table 5.1(b)

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	61.807(a)	4	.000
Likelihood Ratio	51.419	4	.000
Linear-by-Linear Association	35.983	1	.000
N of Valid Cases	330		

Table 5.2(a)**House Type and Size of House Building**

Size of house building	Ownership category based on house type		Total
	non low cost house owner	low cost house owner	
Below 1000 sq.ft	48	0	48
	16.0%	.0%	14.5%
1000 to 1500 sq.ft	162	8	170
	54.0%	26.7%	51.5%
1500 to 2000 sq.ft	76	22	98
	25.3%	73.3%	29.7%
2000 sq.ft and above	14	0	14
	4.7%	.0%	4.2%
Total	300	30	330
	100.0%	100.0%	100.0%

Table 5.2(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.314(a)	3	.000
Likelihood Ratio	32.164	3	.000
Linear-by-Linear Association	14.608	1	.000

Table 5.3(a)**House Type and Area of Land Owned**

Area of land owned	Ownership category based on house type		Total
	non low cost house owner	low cost house owner	
Below 10 cents	58	3	61
	19.3%	10.0%	18.5%
10 to 25 cents	203	16	219
	67.7%	53.3%	66.4%
25 to 50 cents	17	4	21
	5.7%	13.3%	6.4%
50 cents and above	22	7	29
	7.3%	23.3%	8.8%
Total	300	30	330
	100.0%	100.0%	100.0%

Table 5.3(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.593(a)	3	.006
Likelihood Ratio	10.102	3	.018
Linear-by-Linear Association	10.935	1	.001
N of Valid Cases	330		

Table 5.4(a)**House Type and Total Cost of Construction**

Total Cost of House Building	Ownership category based on house type		Total
	non low cost house owner	low cost house owner	
Less than 5 Lakhs	38	28	66
	12.7%	93.3%	20.0%
5 - 10 Lakhs	121	2	123
	40.3%	6.7%	37.3%
10 to 15 Lakhs	70	0	70
	23.3%	.0%	21.2%
15 to 20 Lakhs	53	0	53
	17.7%	.0%	16.1%
20 to 25 Lakhs	3	0	3
	1.0%	.0%	.9%
Above 25 Lakhs	15	0	15
	5.0%	.0%	4.5%
Total	300	30	330
	100.0%	100.0%	100.0%

Table 5.4(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	111.127(a)	5	.000
Likelihood Ratio	90.642	5	.000
Linear-by-Linear Association	45.655	1	.000

Table 5.5(a)**House Type and Cost Overrun**

Difference in actual and estimated costs	Ownership category based on house type		Total
	non low cost house owner	low cost house owner	
Less than 1 Lakh	118	26	144
	39.3%	86.7%	43.6%
1 to 2 Lakhs	105	2	107
	35.0%	6.7%	32.4%
2 to 3 Lakhs	49	0	49
	16.3%	.0%	14.8%
3 to 4 Lakhs	16	2	18
	5.3%	6.7%	5.5%
4 to 5 lakhs	12	0	12
	4.0%	.0%	3.6%
Total	300	30	330
	100.0%	100.0%	100.0%

Table 5.5(b)**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.944(a)	4	.000
Likelihood Ratio	32.617	4	.000
Linear-by-Linear Association	12.875	1	.000
N of Valid Cases	330		

Table 5.6**Multiple Response Analysis on Sources of Idea on Low Cost Housing**

Sources of Idea(a)	Responses		Percent of Cases
	N	Percent	
Literatures	25	45.5%	83.3%
Discussions	25	45.5%	83.3%
Media	5	9.1%	16.7%
Total	55	100.0%	183.3%

Table 5.7**Methods Used for Reducing Construction Cost**

Measures(a)	Responses		Percent of Cases
	N	Percent	
Filler Materials Used For Concrete Roofing	30	12.2%	100.0%
No Concrete Belting Given	28	11.4%	93.3%
Concrete columns not Given	27	11.0%	90.0%
No Plastering To The Walls	4	1.6%	13.3%
Plastering Only For Inside Walls	26	10.6%	86.7%
No Wooden Door Frames	1	.4%	3.3%
Wooden Door Frames Only For Outside Walls	27	11.0%	90.0%
No Wooden Window Frames	25	10.2%	83.3%
Rattrap Holes Given Instead Of Windows	29	11.8%	96.7%
In Built Furniture Used	19	7.7%	63.3%
Country Bricks Only Used	30	12.2%	100.0%
Total	246	100.0%	820.0%

Table 5.8**Influencing Factor on Low Cost House Construction**

Influencing factor	Rank 1		Rank 2		Rank 3		Total	
	N	%	N	%	N	%	N	%
Reduction in overall cost	24	80.0	6	20.0	-	-	30	100
Opinion of others	-	-	5	16.7	25	83.3	30	100
For a fashion	6	20.0	19	63.3	5	16.7	30	100

Table 5.9
Satisfaction Level of Low Cost House Owners

Variable	Satisfied	Somewh at satisfied	Neither satisfied or dissatisfied	Somewh at dissatisfied	Dissatisfied	Total
Functional Utility	86.7	13.3	0	0	0	100.0
Security Feeling	16.7	73.3	10.0	0	0	100.0
Beauty Of The House	50.0	46.7	3.3	0	0	100.0
Life Period Of The House	3.3	16.7	76.7	3.3	0	100.0
Resale Value			23.3	73.3	3.3	100.0
Cost Of House Building	93.3	3.3	3.3	0	0	100.0
Coolness In The House	100.0	0	0	0	0	100.0
Ventillation	53.3	43.3	3.3	0	0	100.0
Income Tax Benefits	0	0	90.0	10.0	0	100.0
Ease In Loan Repayment	40.0	60.0	0	0	0	100.0
Social Status	3.3	33.3	60.0	3.3	0	100.0
Maintenance Cost	3.3	30.0	3.3	36.7	26.7	100.0
Building Tax	3.3	0	0	3.3	0	100.0

Chapter 6

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Chapter 6

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.1 The initial chapter among other things, presented the theoretical framework of the study as well as the status analysis. One thing to be noted in this context is that theory and practice differ in many a situation. This was followed by data analysis and the analysis of personal finance scores and their associations with different variables. Subsequently, economic houses were brought in to ascertain to what extent this is used and the reasons thereof for variation, if any.

6.2 There is a feeling that house construction lands at least some people in the debt trap and that in turn sometimes results in physical and mental setbacks of these people.

6.3 The present study was conducted by formulating five hypothesis. The first hypothesis is house owners are able to construct their houses within the estimated cost. To test this hypothesis the actual cost and estimated cost were compared. The comparison showed that invariably actual cost was much above the estimated cost. Hence the first hypothesis is rejected. The actual as well as the estimated cost were then compared on the basis of time horizon and size of the houses constructed. In both the cases it was found that actual cost was much above the estimated cost and in certain cases the actual cost was almost double that of the estimated cost. The paired T-test also confirmed this.

6.4 The second hypothesis of the study was directed to find out whether there is any cost difference in construction on the basis of location. The hypothesis formulated for this was: "There are differences in the cost of house construction at various stages among different locations". The analysis of data reveals that there is locational difference

in cost of house construction. The cost of house construction, as seen from the data provided by the respondents, is the highest in the Panchayath area and the lowest in the Corporation area. In Municipal area the cost of construction was found to be lower than the Panchayath area and higher than the Corporation area. The statistical test also proved this. The finding also applies to different stages. So the second hypothesis is accepted.

6.5 The third hypothesis was formulated to ascertain the financial comfortability of the house owners after construction of their houses. The common belief in this case is that those who plan personal finance well will be more comfortable with respect to their finance after construction of their houses. The hypothesis formulated with respect to this aspect was: "The house owners who have personal financial planning are financially more comfortable even after their house construction.

6.6 The above issue is analysed under two dimensions viz., (1) their home budget after house construction and (2) debt trap after house construction. Data provided by 170 out of the 300 respondents covered reveal that their home budgets are in deficit after construction of their houses. The chi-square tests also show that there is no positive association between personal financial score and balancing of home budget.

6.7 With respect to the second dimension, viz., debt trap, data show that majority of the respondents are not in debt trap after construction of their houses. Only 105 of the 300 respondents fell into the debt trap after construction of their houses. A scrutiny of the personal financial score of these respondents show that even respondents whose financial score ranged between 40 to 45 and 45 to 50 fall into the debt trap after the completion of their house construction. The chi-square test results shows that there is no positive association between personal financial

score and the debt trap. Under both the dimensions the statistical tests proved that there are no positive associations of personal financial score. Hence the third hypothesis is rejected.

6.8 The fourth hypothesis was formulated to test whether those who have constructed low cost houses have any good personal financial planning. The hypothesis formulated in this case was "The house owners who constructed low cost houses have good personal financial planning".

6.9 Data collected from the respondents show that those who constructed non low cost houses had better personal finance score than those who had constructed low cost houses. The T-test showed that the difference between the mean values of personal financial score is statistically significant among those who constructed low cost and non low cost houses.

6.10 The difference between actual and estimated cost in the case of those who constructed low cost as well as non low cost houses was also statistically worked out. The result showed that there was considerable difference between the actual cost and the estimated cost in the case of both the categories. The factor analysis done also show that there is no correlation between personal financial score and low cost house owners.

6.11 Another fact that came out from the analysis is that there was time overrun in completing house construction in both these categories of respondents.

6.12 With respect to the size of the houses it was found that there was no reduction in size in the case of low cost houses. On the basis of the fact available it was seen that those who constructed low cost houses did not have any superior personal financial planning. Hence the fourth hypothesis stands disproved.

6.13 The fifth hypothesis was formulated to test whether those who constructed low cost houses are satisfied or not. So the hypothesis was formulated as: "The owners of low cost houses are satisfied with regard to the houses they have constructed. The analysis shows that those who constructed low cost houses are satisfied (90%) with respect to factors such as financial utility, cost of construction and coolness inside the house. With respect to ventilation and show (beauty) their satisfaction level is only 50 per cent. But with respect to resale value and maintenance cost they are little bit dissatisfied. So the hypothesis is accepted.

6.14 The analysis with respect to association of income and cost overrun shows that there was difference in cost overrun in the case of different income categories who constructed houses. The maximum cost overrun was seen in the case of respondents whose monthly income was Rs.50,000 and above, and the lowest, among respondents whose monthly income was below Rs.10,000.

6.15 Apart from testing the above mentioned hypothesis, the study has the following objectives. The first in this category was to evaluate the financial difficulties faced by the salaried class after construction for their houses.

The study further revealed that,

- ◆ the financial condition of majority of the respondent house owners have not improved even after two years.
- ◆ the savings of nearly 50% of the respondent house owners decreased within a year of house construction and nearly 30% of the respondents debts increased after one year.
- ◆ 35% of the respondents were in debt trap.

- ◆ there is a statistically significant association between number of income sources and size of the house constructed.
- ◆ there is a statistically significant association between the location and size of the house constructed.
- ◆ there is no statistically significant association between size of the rented house and the house constructed.
- ◆ there is some positive association between the position of debt within one year and after one year.
- ◆ the irregularities in repayment of the loan was largely caused by difficulties in meeting day to day expenses, contingencies in family, other loans etc.
- ◆ there is statistically significant association between monthly income and the debt trap.
- ◆ there are differences in mean values of cost except for the cost of miscellaneous items across locations.
- ◆ there is statistically significant association between the personal finance score and size of the house building.
- ◆ there is a significant association between the personal finance score and the feeling of house as a good investment.
- ◆ there is a statistically significant association between the personal financial score and the education level of the respondents.
- ◆ there is statistically significant relationship between occupational status and personal financial planning

- ◆ there is statistically significant association between personal finance score and the differences in the actual cost and estimated cost of house construction.
- ◆ those who have constructed non low cost houses had a better personal financial score than the low cost house owners.
- ◆ there is no statistically significant association between the personal financial score and the categories of loan amount
- ◆ there is no statistically significant association between the personal financial score and the practice of calculating interest on investment made.

Conclusions

- ❖ The basic problem in house construction was that nobody was able to restrict the construction cost within the estimated limit. This was applicable to individuals with good personal financial score and those who resorted to low cost house construction.
- ❖ Inability to finish the house construction within time lead to cost escalation and this in term forced the individual to go for more loans. If loans are not available from institutions then from money lenders and it lead to imbalanced home budget, no savings, debt trap etc.
- ❖ After the liberalization the financial institutions have become more customer friendly and hence accessibility to more loans were easy and this results in large investments in house buildings.

- ❖ Personal financial practices had associations with monthly income, educational level, occupation, size of the house, etc.
- ❖ A shocking revelation was even those who had very good personal financial score could contain the cost overrun due to various aspects.
- ❖ Another common belief that those who resort to low cost house construction were usually good in personal financial practices was disapproved as with the money saved due to low cost construction was used to build a larger house.
- ❖ Those who had built low cost houses were satisfied with various aspects of house building.
- ❖ Construction of big houses lead to very high consumption of wood.
- ❖ Nobody calculated the total investment on the basis of the rent prevailing in that locality. If one calculates the interest of the money invested on the house construction one could stay in a palace on rent with that amount. The old statement that a “fool built a house and a wise men lives in it” seems to be appropriate.

Recommendations

- Employer certification be made mandatory for taking loans in order to ensure always the minimum net take home salary so that debt trap is avoided.
- Local authorities should accord sanction for house plans of the sizes proportionate to its number of occupants.

- The usage of wood in house construction should be brought down to reduce its adverse impact on economy and ecology.
- Proven cost reducing technologies may be incorporated in the non-low cost building construction. A technology blending is more advisable than the low cost technology.
- Number of electric terminals be restricted to reduce the cost and also to facilitate minimum usage of electricity.
- Orientation programmes may be conducted with the help of local authorities at least for the homebuilders who construct their houses under own supervision.
- Government may initiate the required steps for the promotion of the construction of low cost houses.

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APPENDIX I

Appendix I

HOUSE BUILDING AND PERSONAL FINANCE—A STUDY OF SALARIED EMPLOYEES IN KERALA

Schedule for Interview

Muhammed Aslam
Lecturer
School of Management Studies
CUSAT, Cochin - 22

1. House – building location: Corporation: Municipality:
Panchayath:
2. House Owner:
- a) Owner Husband: Wife:
Joint
- b) Educational Qualification(H): Undergraduate: Graduate:
Postgraduate: Professional:
(W): Undergraduate: Graduate:
Postgraduate: Professional:
- c) Occupation
- Husband: Doctor Engineer
Supervisory Non supervisory
School Teacher College / University Teacher
Others
- Wife: Doctor Engineer
Supervisory Non supervisory
School Teacher College/University Teacher
Others
- d) Age at the time of Constructing the house:
- Husband: Below 30 years. 30 to 40 years.
40 to 50 years. Above 50 years.
- Wife : Below 30 years. 30 to 40 years.
40 to 50 years. Above 50 years.
3. Type of family : Nuclear Joint
- a) No. of occupants : 2 3 4 5 6 & above:
- b) No. of employed members : 1 2 3 4 & above
4. Family composition : Grown up members: Growing:
5. Monthly income from salary:
- a) House owner: 5,000 to 7,500 7,500 to 10,000
10,000 to 15,000 15,000 to 20,000
20,000 to 30,000 30,000 & above
- b) Spouse 5,000 to 7,500 7,500 to 10,000
10,000 to 15,000 15,000 to 20,000
20,000 to 30,000 30,000 & above
- c) Others 5,000 to 7,500 7,500 to 10,000
10,000 to 15,000 15,000 to 20,000
20,000 to 30,000 30,000 & above

- d) Total Monthly Income: Below 10,000 10,000 to 20,000
 20,000 to 30,000 30,000 to 40,000
 40,000 to 50,000 50,000 and above
6. Income from other sources: Below 5,000 5,000 to 10,000
 10,000 to 20,000 20,000 & above
7. Monthly domestic expenses: Below 5,000 5,000 to 10,000
 10,000 to 15,000 15,000 & above
8. a) Monthly Savings before constructing the house:
- b) Financial position after the construction of house:
 Within 1 year, Savings were: Increasing Decreasing
 No change No saving
 Debt: Increasing Decreasing No change
 b) After 1 year, savings were: Increasing Decreasing
 No change No saving
 Debt: Increasing Decreasing No change
 Home Budget: Balanced Not balanced
- c) Number of years taken to balance the home budget: years
9. Where did you stay before constructing the present house?
 With parents In quarters In rented house
10. If rented, the rent paid was:
 Below Rs.1, 500 1,500 to 3,000 3,000 to 5,000
 5,000 and above
11. Size of the rented house in sq. ft.:
 Below 1000 1000 to 1500 1500 to 2000 2000 & above
- 12.a) Year of own house constructing own house:
- b) Time taken for completion : Less than 6 months 6 to
 months
 12 to 18 months 18 to 24 months
 24 months & above
- c) Size of House Building: Below 1000 sq.ft. 1000 to 1500 sq.ft.
 1500 to 2000 sq.ft. 2000 sq.ft. & above
- d) Area of land owned : Below 10 cents. 10 to 25 cents
 25 to 50 cents 50 cents & above
13. Total cost of house building: Amount in Rs.....
14. Estimated cost before the construction: Rs.....
15. Reasons for the variations from the estimated cost: Rank in the order of variation
- | | | |
|-------------------------|--------------------------|-------------|
| Price escalation | <input type="checkbox"/> | due to..... |
| Change in plan | <input type="checkbox"/> | due to..... |
| Additional construction | <input type="checkbox"/> | due to..... |
| Ornamentation | <input type="checkbox"/> | due to..... |
| Delay in completion | <input type="checkbox"/> | due to..... |
| Social pressure | <input type="checkbox"/> | for |
| Any other (specify) | <input type="checkbox"/> | due to..... |
| All the above factors | <input type="checkbox"/> | |
16. Cost of Foundation : Rs. Per Sq. ft. Total cost Rs.....

17. Cost for Structure: Rs.....
18. Total cost for wood :Rs.....
200 & above
19. Total cost incurred for Electrification: Rs.....
20. Total cost incurred for Sanitary work: Rs.....
21. Total cost for Plastering: Rs.....
22. Total cost for sanitary & plumbing: Rs.....
23. Total cost for Painting Rs.....
24. Total cost for decorative works: Rs.....
25. Total cost for compound wall: Rs.....
26. Value of the assets holding before constructing the house: Rs.....
27. If to sell the house, what price do you expect: Rs.....
28. Annual maintenance cost of the house building in rupees:
Below 5000 below 7500 below 10000 above 10000
29. Financing of House building:

Source		Amount in Rs	Interest rate	Installment payable	Repayme nt period
Loan from	Bank				
	L I C policy				
	LIC Housing finance, HDFC, etc.				
	Provident Fund				
	Co-op. Banks				
	Money lending				
	Friends & relatives				
	Land sold				
	Sale of gold				
	Any other (specify)				

30. Amount payable per month towards liabilities:

- EMI of housing loan :
- Other loans :
- Chitty / kuri, etc; :
- Others (specify) :

31. Are you regular in repaying your debts? Yes No

32. If not, reasons for default:

- Difficulties in meeting day to day expenses.
- Contingencies in family.
- Notice on other loans.
- Any other reason (specify)

33. How did you manage the crisis occurred due to default in repayment?

- Fresh loans raised :
- Personal borrowings
- P F loan :
- Assets sold :
- Matured investments :
- Any other (specify) :

34. Did you ever feel that you are in a debt trap due to house construction?
Yes No
35. Annual Income Tax benefit due to housing loan: Rs.....
36. a) Do you feel that the house constructed is a good investment?
Yes No Not sure.
37. b) Do you feel that the investment made in the present house is waste to some extent? Yes No
Which are the components you feel it as wasteful?
1.
2.
3.
4.
38. a) Do you generate any income from the investment in the house?
Yes No
If yes, income generated is by way of:
Renting out Paying guests Home stay tourism
Own business Any other
39. b) Amount of income generated per month : Less than 2,500
2,500 to 5,000 5,000 to 7,500 7,500 to 10,000
10,000 & above
40. Are you satisfied with regard to the utility of your house?
Satisfied Dissatisfied Somewhat satisfied
41. If you are given one more chance:
a) Will you construct a house like this? Yes No
If not, what changes you foresee?
Change in size: Increase Decrease
Functional utility: Increase Decrease
Ornamentation: Increase Decrease
Material quality: Improve Reduce
Location change: Required Not required
- b) Will you prefer a low cost house? Yes
If yes, how will you reduce the cost?
Reduction in the size of building :
Reduction in the cost of wood :
" " " Flooring :
" " " Toilets :
" " " Kitchen :
" " " Ornamentation :
" " " Electrical & Plumbing :
- c) Will you prefer the same financing schemes? Yes No
If not, specify the reason:.....
42. Have you ever calculated the interest on the investment made?
Yes No
43. Did you calculate the loss (interest, etc ;) due to delay in completion?
Yes No
44. Are you aware of the concept of economic house? Yes No

45. Do you have any opinion against this concept? Yes No
 If not, why didn't you prefer to construct it?
 1.
 2.
46. Are you satisfied with the present house on the following aspects?
 a) Proximity to schools Yes No
 b) Proximity to Hospitals Yes No
 c) Proximity to Market Yes No
 d) Proximity to places of worship Yes No
 e) Proximity to places of entertainment Yes No
 f) Proximity to public conveyance facilities through:
 Road within 1 Km. Yes No
 Rail within 5 Km. Yes No
 Air within 15 Km. Yes No
47. Mention the reasons for constructing the house rather than buying.
 a) Location advantage
 b) Own choice for plan and design
 c) Any other, specify

48. Based on your experience, what negative feelings do you have in constructing a house rather than buying or contracting it?
 a) It creates a lot of tension
 b) It requires some knowledge about construction
 c) It overshoots our estimates
 d) It is difficult to coordinate the workers
 e) Any other

49. Do you prepare a family budget? Yes No
50. Do you maintain regular accounts? Yes No
51. Do you have a priority based spending plan? Yes No
52. What is your view on the following aspects?
 Importance of financial freedom is:
 Most essential. Essential. Desirable
 Not essential. Least essential.
53. Clarity regarding short - term financial objectives:
 Very clear. Clear. Undecided
 Not clear. Not at all clear.
54. Clarity regarding long - term financial objectives:
 Very clear. Clear. Undecided
 Not clear. Not at all clear.
55. Practice of family budgeting is followed:
 Quite often Often Occasionally Rarely Never
56. Maintain Family financial accounts:
 Always. Often Occasionally Rarely Never
57. Compare Income and Expenditure with the budgeted one:
 Quite often Often Occasionally Rarely Never

58. Planning for non – recurring expenses:

Always. Often Occasionally Rarely Never

59. Priority based spending plan:

Always. Often Occasionally Rarely Never

60. Plan to increase income and decrease expenditure:

Quite often. Often Occasionally Rarely Never

61. Investment plan:

Very clear. Clear. Undecided

Not clear. Not at all clear.

62. Tax planning:

Always. Often Occasionally Rarely Never

63. Retirement plan:

Highly favourable. Favourable to some extent Neutral

Unfavourable Most unfavourable.

APPENDIX II

Appendix II

HOUSE BUILDING AND PERSONAL FINANCE—A STUDY OF SALARIED EMPLOYEES IN KERALA

Schedule for Collecting Data from Low Cost House Owners

Muhammed Aslam
Lecturer
School of Management Studies
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1. a) Year of constructing the house
- b) Time taken for completion : Less than 6 months 6 to 12 months
12 to 18 months 18 to 24 months
24 months & above
- c) Size of House Building: Below 1000 sq.ft. 1000 to 1500 sq.ft.
1500 to 2000 sq.ft. 2000 sq.ft. & Above
- d) Area of land owned Below 10 cents. 10 to 25 cents
25 to 50 cents 50 cents & above
2. a) Total cost of house building: Amount in Rs.....
- b) Cost per Sq. ft :
3. Estimated cost before the construction: Rs.....
4. Idea derived from: Exhibitions Literatures Discussions
Influence of others Media
5. What are the measures taken to reduce the cost?
 - Filler materials used for concrete roofing
 - No concrete belting given
 - Concrete columns not given
 - No plastering to the walls
 - Plastering only for inside walls
 - Plastering only for outside walls
 - No wooden doorframes
 - Wooden doorframes only for outside walls
 - No wooden window frames
 - Rattrap holes given instead of windows
 - In-built furniture used
 - Country bricks only used
7. Your decision to construct the present house is influenced by:
 - Reduction in the overall cost of building
 - Opinion of others
 - For a fashion

6. Level of satisfaction in construction:

Variable	Satisfied	Somewhat satisfied	Neither satisfied nor dissatisfied	Somewhat dissatisfied	Dissatisfied
Functional utility					
Security feeling					
Beauty of the house					
Life period of the house					
Resale value					
Cost of house building					
Coolness in the house					
Ventilation					
Income tax benefits					
Ease in loan repayment					
Social status					
Maintenance cost					
Building tax					

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