CHAPTER VII

SUMMARY, FINDINGS AND SUGGESTIONS
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The present day Indian society is experiencing a path breaking socio-economic and political changes. Factors such as rapid urbanisation, growing industrialisation, unprecedented rural-urban migration along with population explosion have caused a drastic change in the conditions of the life of the workers and in their characteristics. The informal sector and the volume of workers in this sector have increased at a faster rate. The informal (unorganised) workers work without any job guarantee as they have to work according to the whims and fancies of their employers. The obvious reasons behind this are the lack of employment opportunities in the formal sector and the absence of awareness of the hazards of the unorganised sector. These workers lack the bargaining capacity and the organisational strength and therefore continue to work under deplorable conditions. Most of them belong to the category of unskilled or semi skilled workers with insecure employment and inadequate wage for an occasional urban level of living, particularly for those with a large family and more dependents.

The workers in informal sector in Chennai City are generally engaged in satisfying regular human wants and capital generating activities like construction. There is a dearth of literature on the status and working conditions of construction workers in Chennai City. Available evidence has shown that construction workers in Chennai City are unorganised, uncohesive, heterogeneous, socially and economically backward and for most part of the year remain unemployed. The construction industries in Chennai City employ informal workers in large numbers. The study focuses its attention on the profiles, working conditions and employment and the
economic correlates of the status of the life of the construction workers in Chennai City. It attempts to explore the socio-economic conditions of construction workers in Chennai City in a broader perspective. The aim is to study this unexplored area and to offer a few suggestions for implementation of schemes for the betterment of this unwept, for unsung and unacknowledged sector of humankind. The country needs them and their services and it is time that the nation should take care of them in the name of humanity.

SUMMARY OF THE FINDINGS

The present study has been conducted on the construction workers of Chennai City. The study has chosen multi-stage sampling method in order to select 300 respondents. They have been selected from the sample corporation divisions by using systematic random sampling method. Objectives and hypotheses have been formulated in order to show the nature of the study. Keeping these objectives in view, different aspects of the construction workers have been described. In consonance with the objectives and the preliminary information, hypotheses were formulated. These hypotheses were tested and verified on the basis of the data collected from the respondents. A brief description about informal workers in general and construction workers in particular in Chennai City have been discussed in the second and third chapters of the study. The purpose is to show an overall picture of the informal workers and to offer justification to call construction workers as a typical case of urban informal workers. In the light of this information, a general analysis of the construction workers has been summarised. The general characteristics, employment, working conditions and the economic conditions of construction workers have been presented.
The data collected through interview schedules have been analysed on the basis of the demographic and social structure of the respondents and their households. According to the nature of their occupation, construction workers were grouped into Mason, Perial, Chithal, Carpenter, Painter, Plumber and Electrician. Perial form the largest proportion of construction workers. They accounted for 33 per cent of the total sample construction workers followed by Mason, Chithal, Painter, Plumber, Carpenter and Electricians in the descending order. Mason was almost equally represented in all the selected divisions of Chennai City, whereas a majority of the Carpenters and plumbers were from North Chennai and Painters and Electricians were from Central Chennai.

The age group of 30 to 40 years claim the largest share among the respondents and formed 40 per cent of the total. Nearly half (49.1 per cent) of the women respondents were from this age group. It has been found that only 18.3 per cent of the respondents are women of whom 98.2 per cent belonged to Chithal category. Every four out of 5 construction workers are Tamil speaking which inferred that a majority hailed from within the state and there seems to be little inter-state migration among construction workers. In terms of religion, the largest group of construction workers are Hindus (96 per cent) followed by Christians and others. The caste-classification of the respondents revealed that Scheduled caste happens to be the dominant caste group and they account for 36 per cent of the total respondents. The other prominent caste group is Vanniar who, along with Scheduled castes, comprised 63.7 per cent of the total. It is revealed that these two castes are categorized as the downtrodden and most backward classes respectively.
There is no worker from the forward castes among the sample workers. The \( \chi^2 \) value obtained accepted the null hypothesis of no relationship between workers from different communities and different categories of construction work.

In respect of literacy status, nearly three-fifths (59.3 per cent) of the respondents were literates. The literacy level is the lowest among Chithals and the highest among Carpenters and Electricians. Except at the middle school level, the number of literates decline as the educational level went up.

The average size of the household for the sample as a whole is 4.06. Masons and Carpenters had the largest household size while the smallest was that of Electrician. The household composition revealed that the proportion of children to the total population is 25.8 per cent as compared to the 70.6 per cent of the working age population and 3.6 per cent of the aged population. In all these categories, men outnumbered women. Nuclear type of families accounted for 84 per cent of the households and the joint families for 13 per cent. The remaining 3 per cent are uni-member households. The proportion of joint-families is more among the Carpenters and less among Electricians. A majority of the respondents have reported that they are married. The proportion of married respondents is 84 per cent as against 12 per cent unmarried. The divorced and separated respondents constitute only 4 per cent. The proportion of married respondents varied from 92.3 per cent in the category of Carpenter to 66.7 per cent among Electricians.

According to the migratory status, 48.3 per cent of the sample households are classified as migrant households. A little less than one third of the households have migrated to Chennai City about 20 or more years
ago. Another 27.5 per cent of the respondent households have migrated to Chennai City about 10 years ago. It is revealed from the survey that a majority of the migrant construction workers are from the neighbouring districts of Chennai City and migrants from far-away districts as well as from other states constitute an insignificant proportion. Non-availability of work in rural areas and job search are the reasons cited for migration by 67.9 per cent of the migrants and the other important reason centred on poverty. It is known that a majority of the households maintained connections with their native place and paid visits to their native places. However, 90.4 per cent of the respondents of migrant households are not willing to go back to their native place in order to settle down.

In respect of general health, the responses indicated that 39.7 per cent of the households had members reported sick or ill health at the time of the survey. The largest proportion of sick persons is found among Chithal households and the persons of good health are larger among Electrician households. Thus, it can be inferred that health condition improves along with increased income. It was found that more than one-third of the households had patients suffering from water-prone diseases. Classifying the illness, Rheumatism was cited as the disease among 16.8 per cent of members are reported sick followed by general fever and stomach-ache in the proportions of 14.3 per cent each. Further enquiries on the nature and agency of treatment for the illness revealed that 52.1 per cent of those who suffered illnesses were treated in both private and government dispensaries. About 25 per cent were treated in government hospitals at free cost. It is found that a majority of the family planning acceptors (76.6 per cent) were women and they belonged to the category of Chithals.
The proportion of students in the age-group of 5 to 14 years, not attending the school, are only nine children out of 209. It is interesting to note that out of the nine children, four have not enrolled in schools, four dropped out at some stage of their studies and one child is employed as child labourer. In general, it is felt that the respondents pay much importance to the education of their children.

It is found that 47 per cent of the respondents are smokers, 41.7 per cent consume liquor, 38 per cent of respondents are cinema goers and 8.7 per cent are gamblers. They spent an average expenditure of Rs.56.18 on these habits per month.

Considering the economic status, it can be understood that 45.5 per cent of the sample population are considered as earners and 54.5 per cent dependents. The number of dependents per earner has been computed as 1.2.

The conditions of employment of the construction workers are furnished in the fifth chapter. The overall work experience of the construction workers is computed as 15.29 years with a standard deviation of 7.6799. It has been observed that workers with relatively less experience are found more in less skilled works. About the working status, only 3 per cent of the total respondents were reported as trainees. Classification of the respondents according to the type of employer revealed that more than half (54 per cent) of the Chithal depended on daily labour market for employments. They are followed by Perial, Mason and Painter. Those who depended least on daily labour market are Plumber, Carpenter and Electrician.
The length of the working day for 86 per cent of the respondents is mostly 8 hours. More than 8 hours of work per day was reported among 13.7 per cent of the respondents. The mean working hours in a working day has been computed as 8.19 hours with a standard deviation of 0.543. On an average, the respondents found employment in 4.19 days per week and 17.15 days in a month. It means that nearly half of a month they remained unemployed. Among the respondents, Mason is the highly paid class. No Mason works for a wage less than Rs.130 per day. The lowest paid class among construction workers is Chithal. It has been found that 98.2 per cent of them are employed for less than Rs.100 per day. The mean daily wage computed for the respondents is Rs.133.23 in a day with a standard deviation of 32.62. In order to analyse the increment in the wages over the years, the wage at the time of training has been compared with the number of years of experience of the respondents. The value of Karl Pearson’s correlation coefficient is -0.538. It showed that the wage at the time of training decreases with increase of experience of the respondents. The inquiry revealed that 59.3 per cent of the respondents did not change their first occupation. However, 82.9 per cent of the Mason and 91 per cent of the Chithal changed their occupation in the past. Thus among Masons and Chithals there seems to be more change in occupation. They have been drawn from rural manual workers. Electricians did not change their occupation. While comparing the occupations of the past with those of the present, it can be understood that though their previous occupations related to construction work, nevertheless there was a kind of gradual shift from less-skilled to skilled work. Among the total respondents only 4.7 per cent reported of having an additional occupation. In order to know occupational
change and the nature of heredity, the occupation of the father of the respondents has been obtained. It has been revealed that only 19.33 per cent of the respondents inherited the occupation of their father. It is surprising to note that none of the carpenters inherited the occupation of the father whereas carpentry has been once considered as a caste-based occupation.

It is evident from the data that only 14.3 per cent of the respondents are not satisfied with the present job. Job uncertainty is cited as the most important reason for job dissatisfaction (72.1 per cent) followed by low earnings (14 percent), long distance (7 percent) and poor working conditions (7 percent). However, it could be understood that only 5.7 per cent of the respondents had shown interest in changing their present occupation. Those who expressed strongly against job changes are Carpenters, Mason and Chithal for different reasons. Of the 17 respondents interested in changing the present occupation, 41.2 per cent did not make any attempt to find a new job. Lack of money for investment happens to be the major reason for not getting the desired job for 40 per cent of those who attempted a job change. Of the total respondents, 17 per cent replied that they did not undergo any training. Every seven out of ten (70.6 per cent) of them belonged to the category of Chithals. Of the 249 examined, 92 per cent learnt the skill through on job training.

With regard to the distance between the place of residence and workspot, the mean distance calculated is 4.32 Kms with a standard deviation of 1.65. It ranged from a minimum of 2 Kms to the maximum of 10 Kms. Nearly one-fourth of the respondents (24.7 per cent) scale the distance
on foot, another 36.3 per cent on cycles and 36.7 per cent on transport buses.

Monthly income analysis of the construction workers showed that 55.3 per cent of the respondents earned an income between Rs.2000 to Rs.3000 per month. The average monthly income of the respondents has been computed as Rs.2309.93 with a standard deviation of 713.1287. The Karl Pearson's coefficient has been worked out in order to assess the degree of relationship between the number of working days in a month and the monthly income of the respondent. The 'r' value computed shows 0.661 at 0.01 significance level. It showed that there exists a high degree of positive correlation between the monthly income of the respondent and the number of working days in a month. It is evident from the data that 13.3 per cent of the respondents received some benefits other than wages. In terms of mode of wage payment, 61.3 per cent of the sample construction workers are paid on daily basis, 48 per cent on weekly basis and 0.7 received wages on monthly basis. It is revealed that 27 per cent of the respondents faced problems in settling wages with their present employer. It is interesting to note that 202 out of 300 respondents (67.3 per cent) are working through some middlemen. Of them, 71.8 per cent of them are aware of the wages given by the employer. Among the different categories of middlemen, 68.3 per cent are co-workers. It has been revealed during this survey that 66 per cent of the respondents have been working under the present employer for less than one week.

A majority of the respondents (35 per cent) valued higher labour productivity as the important determinant of labour demand. Low wages,
accommodative behaviour and physical ability are said to be other determinants ranked in the order of preference.

The exploitative nature of the construction industry forms the basis for the establishment of Welfare Board for the construction workers. This would also be justified if the awareness of the respondents about various schemes is assessed. It is revealed that 26.7 per cent of the respondents are members of different trade Union. More than two-fifths (42.5 per cent) of them are affiliated to Tamil Nadu Construction Worker's Central Welfare Union (CWCU) and half of them are affiliated to Tamil Nadu Construction Worker's Central Union (CWCU). The political trade unions attract only small number of construction workers. The Tamil Nadu Government formed Tamil Nadu Construction Worker's Welfare Board (TNCWWB) in 1994 to improve the conditions of construction workers. It is surprising to see that 73.3 per cent of the respondents are not aware of TNCWWB. Of those aware of it 96.3 per cent are member of TNCWWB. The $\chi^2$ value has been computed by using the multi-nominal logistic regression model. In order to find the goodness of fit chi-square statistics, awareness about TNCWWB has been taken as the dependent variable and category of the construction workers as the only factor. The $\chi^2$ value observed is less than the table value corresponding to 6 degrees of freedom at 0.05 significance level. Hence the null hypothesis of all construction workers not aware of the policies and programmes of the Government is accepted and hence the alternative hypothesis is rejected. Further, inquires reveal that only 28.3 per cent of the respondents are aware of minimum wages, 79.7 per cent of workers not
aware of equal remuneration Act, 73.3 per cent are not aware of accident compensation, and 77 per cent are not aware of insurance cover.

Construction workers are engaged in activities which exert more physical labour and they were inflicted by health hazards and accidents. Though the construction workers get relatively better wage, they experience involuntary unemployment and uncertainty. The TNCWWB launched various schemes for their betterment of them, however, the hapless were not aware of the schemes.

Regarding the economic conditions of construction workers, the present study has related to the monthly household income, monthly household expenditure, forms and the level of savings, ownership of property and indebtedness. Household income is derived mainly from the work of the members of the household. Nearly two-thirds (65.1 per cent) of the aggregate household income has obtained from the respondents, 33.8 per cent by other members in the household and only 1.1 per cent from other sources. This proportion varied between different classes of the household income. The percentage contribution of respondents to the household income decreased when respondents move forward in their income classes. It is revealed that the higher income among the high income households were due to the increased contribution by more members of the household.

The frequency distribution of households according to average monthly income indicates a heavy concentration of households in the lower income classes of Rs.2000-3000 and Rs.3000 - 4000. Around 34.7 per cent of the households are within the income range between Rs.2000-3000 and for another 33 per cent they fall between Rs.3000 and Rs.4000. The average
monthly income per household computed stands at Rs.3576.73 and the average monthly per capita income is Rs.880.25.

Considerable variation of household income has been revealed among various categories of construction workers. The percentage contribution of respondent to the household seems to be maximum among Electrician and minimum among Chithal. The average monthly household income of the Carpenters has been recorded as Rs.4358.46. The lowest average monthly household income of Rs.3328.69 has been recorded among Perial. The range of variation, therefore, is not extensive for all the groups. The average monthly per capita income of Electrician figured as the largest with Rs.1164.21 while the lowest for Painter with and income of Rs.817.69 as compared to the overall average monthly per capita income of Rs.880.25.

The monthly expenditure per household amounted to Rs.3337.54 for sample households as a whole. Average expenditure per adult equivalent comes to Rs.930.39. The frequency distribution of households according to average monthly household expenditure revealed that 66 per cent of the households spend between Rs.2250 and Rs.3750. Among the broad items of expenditure, food constituted on average 51.67 per cent of the total, rent or maintenance accounts for 13.32 per cent, fuel constitutes 5.79 per cent, clothing for 4.8 per cent and other items 7.45 per cent.

Variation in average monthly household expenditure among various categories of construction workers indicates a similarity of positions. The average monthly household expenditure on food, rent or maintenance, fuel, clothing is in the descending order for all categories of construction workers. The average monthly expenditure of the Carpenter households is the
maximum of Rs.3872 and the minimum in the case of Chithal with Rs.3127.33. If one compares income with expenditure, it is seen that expenditure measured 93.3 per cent of income. The difference between the average monthly household income and expenditure seems to be a maximum of Rs.485 in the case of Carpenter and a minimum of Rs.38.93 in the case of Plumber. It has been found that among all categories, construction worker household's average monthly household income exceeds the average monthly household expenditure. However, it can be seen that the difference between average monthly household income and expenditure in the lower income classes show a gap between income and expenditure but the surplus tended to mount up sharply in the higher income classes.

The household income was taken separately as the dependent variable and household size as the single predictor variable. The linear regression equation is used to find out the correlation value. The 'r' value computed between household income and household size is 0.463 at 0.01 levels. The $R^2$ value is 0.212 having a 'r' value of 0.463 and 't' value of 9.016 at 0 significance level. In another linear regression model, household expenditure and adult equivalent size were taken as the criterion and predictor values respectively. The 'r' value computed is 0.68 at 0.01 levels. The $R^2$ value obtained is 0.463 having the $\beta$ value of 256.58 and 't' value 16.02 at 0 significance level. The high positive 'r' value significance $R^2$ value, high $\beta$ and 't' value at 0 level significance connote the acceptance of the alternative hypothesis and the rejection of the null hypothesis. Moreover, the
influence of adult equivalent size on household expenditure is more than the influence of household size on household income.

When household savings is discussed, 22.3 per cent of the respondents reported to be having banking habits. Among those who had bank pass books, 70 per cent claimed account in commercial banks, 26.9 per cent in cooperative banks and 3 per cent in other banks. Out of the 300 households, 299 (99.7 per cent) reported to be in possession of assets. The households in lesser income groups possess lesser volume of assets. It was found that more than 70 per cent of the households possessed assets valued less than Rs.30000 and only 7 per cent of the households valued more than 120000. The average value of household assets was more for Electrician of Rs.56833.33 and the lowest of Perial of Rs.25627.27. The value of average household asset for the entire household was computed as Rs.35165.67.

With respect to household debt, 58.3 per cent of the households were reported to be in debt. The percentage ratio of debtors in the higher income classes show less variation and in ranges from 29 per cent to 37 per cent. Among the debtors Mason borrowed a huge amount.

Income determination of a household is multi-dimensional in nature. In order to analyse the multi-dimensionality of income correlates, as many as twelve predictor variables and the criterion variable (household income) were subjected to correlation analysis by using Pearson Product-Moment Correlation.

Out of the twelve variables entered as predictor variables of household income determination, only five variables came out highly correlated with household income and high Beta values. The selected variables include a
number of income earners, total household savings, total value of household assets; number of days worked in a month and fathers’ occupation. The computation of the correlation index among all five variables resulted in an inter correlation matrix. This relationship may be attributed to the cumulative status of the life of the construction workers over a period of time. Those households with more assets have better opportunities to earn higher income. On the whole, the number of income earners, total value of household assets, and total number of days worked in a month and total household savings emerged as the important predictors of household income.

In order to find out the association of household income to the number of income earners, total value of household assets, the number of days worked in a month and total household savings, a linear relationship is assumed. To throw more light on the predictor variables determining household income, a household income function is constructed by taking household income as the criterion variable and five predictor variables.

The estimation of the regression equation is done by zero-run regression analysis. Of the five variables entered, four turned out to be significant at 1 per cent level. Father’s occupation is the insignificant variable and it was dropped from the equation.

The number of income earners was the most significant variable statistically. It is evident that the t and value F value were high and the ‘P’ value was significant at 0.00 levels. The sign of coefficient was positive implying that households with more number of earners have high household income. The second important variable influencing the household income is
household assets and the 't' value of the variable is found significant at 1 per cent level. The third variable (number of days worked in a month) is significant at high 'F' and 't' values at 0 per cent level. The fourth variable is the household savings which has high 'F' and 't' value significant at 0 per cent level.

The adjusted coefficient is nearly 60 per cent. The error term is nearly 40 per cent. Moreover the F value is found to be highly significant at 0 per cent level. It means that for every Rs.100 increase in household income, 60 per cent of the increase is due to the influence of the four predictor variables. Of this, the number of income earners alone decide more than 47 per cent of the increase, with every increase of Rs.100 in household income.

Consumption pattern of lower income people determines the standard of living to a larger extent. In order to determine the multi dimensionality of expenditure correlates, five predictor variables were selected which comprise household income, expenditure on food, expenditure on clothing household debt and adult equivalent size. The predictor variables were correlated with the criterion variable, household expenditure.

All the selected predictor variables showed a high degree of positive correlation with the total household expenditure. In order to find out the association of household expenditure (criterion variable) and the predictor variables such as total household income, total food expenditure, adult equivalent size, expenditure on cloth and total household debt, a linear relationship was assumed. After the examination of multicollinearity, all the five predictor variables were accepted and retained in keeping with the theoretical specification of the regression equation. The step-wise regression
method has been carried out for the estimation of coefficients of the predictor variables which has also minimized the problem of multicollinearity. All the variables are found significant and therefore turned out to be the accepted variables.

The household income is the most significant variable statistically. It is highly significant because of the high $\beta$ and 't' value. Moreover the 'p' value is significant at 0.00 levels. The sign of coefficient is positive implied that households with more income spent more. The second most important variable affecting the household expenditure was the expenditure on food. The 't' value of the variable was high at 0.00 per cent level of significance. The third variable influencing the household expenditure is the expenditure on cloth followed by total household debt and adult equivalent size. The 't' value of all these variables was high at 0.00 per cent level of significance except household adult equivalent size.

Scope for further Research

1. A comparative study of the socio-economic conditions of formal and informal construction workers can be studied to understand the socio-economic dynamics of the society.

2. The changing paradigm of construction technology after globalisation and its impact on the employment of informal workers can be studied.

3. A comparative analysis of other informal workers with informal construction workers can be made.

4. The occupational absorption of the migrants immediately after migration generally starts with unskilled construction work and
gradually graduates either vertically or horizontally in the occupational plane. Therefore the occupational pattern and occupational change of the migrant workers can be taken up for a separate study.

5. At present, the corporate sector is making inroads into the construction industry. A separate study can be made on the impact of the entry of corporate sector on construction industry.

Suggestions

1. Effort should be taken to bring all informal construction workers under the Tamil Nadu Construction Workers Welfare Board. These workers can be certified on the basis of their skill and the minimum wage eligible for their daily work may be fixed.

2. Periodical training camps can be conducted to up-date the technical knowledge of construction workers since skill upgradation is a must for these workers in the modern technology.

3. In order to inculcate the savings habit among the construction workers and to offer contingency loan during the off-season, a scheme can be started for the purpose, by the TNCWWB.

4. Construction involves risk to life or it may cause disability, hence the minimum safety measures, such as group insurance, should be made compulsory while they are at work.

5. In order to arrest the exodus from rural areas, the suggested benefits for urban informal construction workers should equally be extended to the rural construction workers. There has been a conversion of rural agricultural workers into urban informal construction workers after migration. The TNCWWB should act as the portal of the conversion by
disseminating the practical knowledge of construction work to such trainees.

6. Some categories of construction work are traditionally undertaken by the respective castes. Efforts should be taken to professionalize the skills of different categories of construction work.

7. It will show better results if construction workers are registered area-wise and organised under different area offices. Such a net-work can easily attract the attention of the construction workers toward the Board and they can benefit out of it.

The study gives a comprehensive demographic, social and economic background of the construction workers in Chennai City. It covers multi-dimensional issues of the urban construction workers with regard to the circumstances related to their life and the perceptions about the environment. It is found that a larger proportion of the workers have been getting a relatively better wage. Though the Government of Tamil Nadu took some vital measures to improve the living conditions of the workers, a majority of the respondents were not aware of it. Consequently, it has a direct bearing on their life. The workers were highly unorganised because they evince lesser participation in unions. They suffer from all kinds of miseries and go through various hazards of life since they are not aware of the available welfare measures. The awareness and skill of the workers play a significant role in the living and working conditions of the workers. The employment conditions, employability and job opportunities directly or indirectly affect their role and status in society.
It can be inferred from the analysis that the construction activities will definitely increase and have to contribute much to the employment sector as millions are there wanting to move to better housing. The economic status of construction workers also will continue to be more or less the same since they are unorganised, either illiterate or less literate and belong to socially downtrodden classes. A majority of them are migrants from agricultural sector expecting to have a better living in urban areas. Builders and flat promoters encroach into the construction activities, especially in urban areas. In addition to this, mechanisation largely reduces the employment opportunities of the construction workers because of the labour saving technology of the corporate sector. Hence, labour laws should be adequately implemented to achieve the desired objectives of the government. Along with this, it is imperative on the part of the government to make group insurance system compulsory and to impart technical knowledge to the unskilled construction workers to improve their employability. The construction workers build houses for the economically better-off people and the living standards of these workers should be made at least economically sufficient.
BIBLIOGRAPHY