AN ECONOMIC ANALYSIS OF WOMEN CONSTRUCTION WORKERS IN THOOTHUKUDI DISTRICT

[1]P. Shenbagaraj, [2]Dr. Mrs. D. Amutha

[1]Research Scholar, Department of Economics, Kamaraj College, Thoothukudi, Tamil Nadu, India
(Affiliation of Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli 627 012, Tamil Nadu, India)

[2]Associate Professor, Department of Economics, St. Mary's College, Thoothukudi, Tamil Nadu, India
(Affiliation of Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli 627 012, Tamil Nadu, India)

ABSTRACT

The construction workers constitute one of the most significant types of workers in the unorganised sector. Hence, the present study is an attempt to analyze the empowerment of female construction workers in Thoothukudi District of Tamil Nadu. Empowering women is not just for meeting their economic requirements but also universal social development. Thus, it may conclude from the analysis of the findings of the present study that the life of the women tends to be better economically after joining construction work in both rural and urban areas.

Keywords: Women, Construction, Empowerment, Rural, Urban

INTRODUCTION

The construction workers constitute one of the most significant types of workers in the unorganised sector. Construction in recent years has occurred as a growing activity; the growth rate in labour absorption recorded by construction sector is almost thrice as large. Eminent economists argue that liberation from poverty, inequality, unemployment, illiteracy and mass deprivation should recognise as the outstanding goals of any development efforts. Construction workers, as an essential constituent of the labour stock and supply, contribute considerably to the effort of realising them grand goals. Hence, the present study is an exertion to analyse the socio economic conditions of women construction workers and their economic empowerment in Thoothukudi district of Tamil Nadu.

STATEMENT OF THE PROBLEM

Shelter is a significant branch of the economy next only to food and clothing. It enjoys basic significance in all welfare states. Naturally, the construction workers who constitute a vital input

in the industry play a unique role. Construction activity is an integral part of a country's infrastructure and industrial development. It includes hospitals, schools, townships, offices, houses and other buildings; urban infrastructure (including water supply, sewerage, drainage); highways, roads, ports, railways, airports; power systems; irrigation and agriculture systems; telecommunications etc. The construction workers have been consistently assuming added importance in all modern economies over the years.

Besides, the construction sector generates the employment opportunities for the poor people by absorbing rural women labour and unskilled workers; it also provides opportunity for seasonal employment thereby supplementing workers' income from farming; and permits large-scale participation of women workers. Thus the construction sector is one of the largest employers for women in the country. As a matter of fact these female construction workers, who are changing the very face of India with their bare hands, are exploited and discriminated a lot. Hence, the present study is an attempt to analyse the empowerment of female construction workers in Thoothukudi District of Tamil Nadu.

OBJECTIVES OF THE STUDY

The specific objectives of the study are

1. To study the socio–economic conditions of the sample women construction workers in the study area.

2. To measure the income inequality among the respondents before and after joining construction work.

3. To offer suitable suggestions for the improvement of women construction workers.

METHODOLOGY

The study is confined to Thoothukudi district of Tamil Nadu. Thoothukudi district has a large number of construction workers and the construction industry has shown significant growth in the district. Both primary and secondary data have been used for the present study. Thoothukudi district is the universe for the study. The universe was stratified into rural and urban areas. The primary data was obtained from the 25 women construction workers in 7 rural villages (25*7=175) from Thoothukudi District such as *Authoor, Alwarthirunagari, Pudukottai, Muthiahpuram Taruvaikulam, Vilathikulam* and *Puthiyamputhur.* Thus, altogether 175 sample women construction workerswere randomly selected for primary data collection in rural areas by adopting simple random sampling technique. *Similarly,* the researcher has selected 25 women construction workers in 5 urban areas (25*5=125) from Thoothukudi District such as

Thoothukudi, Tiruchendur, Kovilpatti, Sathankulam and Udangudi. Thus, altogether 125 sample women construction workerswere randomly selected for primary data collection in urban areas by adopting simple random sampling technique. Thus 175 respondents from rural and 125 respondents from urban areas, totally 300 women construction workerswere selected for the study. The personal interview method was carried with a pre-tested schedule. The primary data collected pertain to the year 2016-17. Secondary data has collected from various Government reports, Office of the Labour and Employment in Thoothukudi district, research reports, journals, libraries, magazines, books, newspapers internet and various institutions.

RESULTS AND DISCUSSION

The Empowerment of Women construction workers

This present study, the socio-economic profile of the selected women construction workers such as age, family income, family expenditure and savings have discussed. This section deals with socio-economic conditions of the selected women construction workers in the study unit.

Age-wise Classification

Age-wise analysis of the respondents

Sl. No.	Age (In years)	Number of Respondents		Total
		Rural	**Urban**	
1.	Below 30	24(13.71)	12(9.60)	36(12.00)
2.	30 – 40	91(52.00)	65(52.00)	156(52.00)
3.	40 – 50	41(23.43)	34(27.20)	75(25.00)
4.	50 and above	19(10.86)	14(11.20)	33(11.00)
	Total	175 (100.00)	125 (100.00)	300 (100.00)

Source: Primary data.

Note: Mean age of rural women construction workers 34.61 years and Mean age of urban women construction workers 38.79 years.

It inferred that in the case of rural women construction workers the majority of the women workers (52.00 percent) belong to the age group of 30 to 40 years followed by 40 to 50 years (23.43 percent). 13.71 percent of the women workers belong to the age group of below 30 years, 50 years and above (10.86 percent).

A similar trend was found in urban women construction workers also. About 52.00percent of the women construction workers belong to the age group of 30 to 40 years, followed by 40-50 years (27.20 percent). 11.20 percent of the women construction workers belong to the age group of 50 years and above, below 30 years (9.60 percent).

NATURE OF WORK

Nature of the women construction workers

Sl. No.	Nature of Work	Number of Respondents		Total
		Rural	**Urban**	
1	Material loading	35(20.00)	24(19.20)	59(19.67)
2	Brick Handling	26(14.86)	19(15.20)	45(15.00)
3.	Water curing	18(10.29)	14(11.20)	32(10.66)
4.	Cement Mixing	42(24.00)	29(23.20)	71(23.67)
5.	Stone Shaping	21(12.00)	12(9.60)	33(11.00)
6.	Cleaning	9(5.14)	7(5.60)	16(5.33)
7.	Helper	24(13.71)	20(16.00)	44(14.67)
	Total	175 (100.00)	125 (100.00)	300 (100.00)

Source: Primary data.

It has been observed that in the case of rural areas the women construction workers 20.00 percent of the sample respondents belong to Material loading activities, and 14.86 percent of the respondents who engaged with Brick Handling activities and 10.29 percent of the respondents belong to water curing activities, 24.00 percent of the women labourers are engaged with Cement Mixing, 12.00 percent of the women labourers engaged with Stone Shaping, 5.14 percent of the women labourers engaged with Cleaning and 5.14 percent of the women labourers engaged with Helper.

Whereas in the case of urban women construction workers 19.20 percent of the sample respondents belong to Material loading activities and 15.20 percent of the respondents who engaged with Brick Handling activities and 11.20 percent of the respondents belong to water curing activities, 23.20 percent of the women labourers are engaged with Cement Mixing, 9.60 percent of the women labourers engaged with Stone Shaping, 5.60 percent of the women

labourers engaged with Cleaning and 16.00 percent of the women labourers engaged with Helper.

FAMILY INCOME

Sl. No.	Monthly Family Income (in Rs.)	Number of Respondents		Total
		Rural	Urban	
1.	Less than Rs.5,000	16(9.14)	13(10.40)	29(9.67)
2.	Rs.5,001 – Rs.10,000	73(41.71)	55(44.00)	128(42.67)
3.	Rs.10,001 – Rs.15,000	41(23.43)	26(20.80)	67(22.33)
4.	Rs.15,001 – Rs.20,000	32(18.29)	19(15.20)	51(17.00)
5.	Above Rs.20,000	13(7.43)	12(9.60)	25(8.33)
	Total	175 (100.00)	125 (100.00)	300(100.00)

Source: Primary data.

Note: Mean monthly family income in rural areas Rs.9280.5 and urban women construction workers Rs.9,000.5.

It has been observed that out of 175women construction workers in Rural areas a maximum of 73 (41.71 percent) with a family income of Rs. 5,001 – Rs. 10, 000 followed by 41 (23.43 percent) have a monthly family income of Rs. 10,001 – Rs.15, 000, 32 (18.29 percent) of them have a family income of Rs.15, 001 – Rs. 20, 000. 16 (9.14 percent) of them have a family income of less than Rs. 5000, and 13 (7.43 percent) have a monthly family income of Rs. 20,000 and above.

Whereas, in the case of rural women construction workers a maximum of 55 (44.00 percent) with a family income of Rs. 5,001 – Rs. 10,000, followed by 26 (20.80 percent) have a monthly family income of Rs. 10,001 – Rs. 15,000, 19 (15.20 percent) of them have a household income of Rs. 15,001 – Rs. 20,000, 13 (10.40 percent) of them have a family income of less than Rs. 5000 and 12 (9.60 percent) have a monthly family income of Rs. 20,000 and above.

FAMILY EXPENDITURE

MONTHLY FAMILY EXPENDITURE OF THE HOUSEHOLDS

Sl. No.	Monthly Family Expenditure (in Rs.)	Number of Respondents		Total
		Rural	Urban	
1.	Less than Rs.3,000	16(9.14)	11(8.80)	27(9.00)
2.	Rs.3,001 – Rs.6,000	53(30.29)	36(28.80)	89(29.67)
3.	Rs.6,001 – Rs.9,000	64(36.57)	48(38.40)	112(37.33)
4.	Above Rs.9,001	42(24.00)	30(24.00)	72(24.00)
	Total	175 (100.00)	125 (100.00)	300 (100.00)

Source: Primary data.

Note: Mean monthly family expenditure of the households in rural areas Rs. 6,763.36.

Mean monthly family expenditure of the households in urban women construction workers Rs. 6,828.5.

It has been observed that out of 175 construction workers in rural areas a maximum of 64 (36.57 percent) with a family expenditure of Rs. 6,001 – Rs. 9000. Followed by 53 (30.29 percent) have a monthly family expenditure of Rs. 3,001 – Rs. 6,000 and 42 (24.00 percent) of them have a family expenditure of Rs. 9001 and above. 16 (9.14 percent) of them have a family expenditure of less than Rs. 3000. The mean monthly family expenditure of the households works out to be Rs. 6,763.36. Whereas, in the case of urban women construction workers a maximum of 48 (38.40 percent) with a family expenditure of Rs. 6,001 – Rs. 9000. Followed by 36 (28.80 percent) have a monthly family expenditure of Rs. 3,001 – Rs. 6,000 and 30 (24.00 percent) of them have a family expenditure of Rs. 9001 and above. 11 (8.80 percent) of them have a family expenditure of less than Rs. 3000.

FAMILY SAVING

MONTHLY FAMILY SAVING OF THE HOUSEHOLDS

Sl. No.	Monthly Family Saving (in Rs.)	Number of Respondents		Total
		Rural	**Urban**	
1.	Less than Rs.2,000	52(29.71)	36(28.80)	88(29.33)
2.	Rs.2,001 – Rs.3,000	61(34.86)	42(33.60)	103(34.33)
3.	Rs.3,001 – Rs.4,000	37(21.14)	26(20.80)	63(21.00)
4.	Rs.4,001 – Rs.5,000	18(10.29)	15(12.00)	33(11.00)
5.	Above Rs.5,000	7(4.00)	6(4.80)	13(4.33)
	Total	175 (100.00)	125 (100.00)	300 (100.00)

Source: Primary data.

Note: Mean monthly family saving of the households in rural areas Rs.2, 740.5.

It has been observed that out of 175 women construction workers in Rural areas a maximum of 61 (34.86 percent) with a family saving of Rs. 2,001 – Rs. 3, 000, followed by 52 (29.71 percent) have a monthly family saving of Rs less than Rs. 2000, and 37 (21.14 percent) of them have a family saving of Rs. 3001 – Rs. 4,000. 18 (10.29 percent) of them have a family saving of 4,001 – Rs. 5,000, and 7 (4.00 percent) have a monthly family saving of Rs. 5,000 and above. Whereas, in the case of urban women construction workers a maximum of 42 (33.60 percent) with a family saving of Rs. 2,001 – Rs. 3,000, followed by 36 (28.80 percent) have a monthly family saving of Rs less than Rs. 2000, and 26 (20.80 percent) of them have a family saving of Rs. Rs. 3001 – Rs. 4,000.15 (12.00 percent) of them have a family saving of 4,001 – Rs. 5,000, and 6 (4.80 percent) have a monthly family saving of Rs. 5,000 and above.

IMPACT OF MONTHLY FAMILY INCOME BEFORE AND AFTER JOINING CONSTRUCTION WORK

MONTHLY HOUSEHOLD INCOME OF THE WOMEN RESPONDENTS BEFORE AND AFTER JOINING CONSTRUCTION WORK IN RURAL AREAS

Sl. No.	Monthly Household Income	No. of Respondents	
		Before Joining construction work	**After Joining construction work**
1.	Less than Rs.5,000	65(37.14)	16(9.14)
2.	Rs.5,001 – Rs.10,000	96(54.86)	73(41.71)
3.	Rs.10,001 – Rs.15,000	7(4.00)	41(23.43)
4.	Rs.15,001 – Rs.20,000	4(2.29)	32(18.29)
5.	Above Rs.20,000	3(1.71)	13(7.43)
	Total	175 (100)	175(100)

Source: Computed from Primary Data, 2016-17.

Reveals the monthly income of the women respondents before and after joiningconstruction work. Before joining construction work, 37.14 percent of the respondents had a monthly family income of less than Rs. 5000, whereas after joining construction work only 9.14 respondents had a monthly family income of less than Rs. 5000. 54.86 percent of the respondents had a monthly income between Rs. 5001-10,000 before joiningconstruction work, which decreased by 41.71 percent after joining construction work. 4.00 percent of the respondents had a monthly income between Rs.1 0,001-15,000 before joining construction work, which increased by 23.43 percent after joining construction work. 2.29 percent and 1.71 percent of the respondents had monthly family income between Rs. 15001-20000, and above 20000 respectively before joining construction work. But after joining construction work, it increased to 18.29, and 7.43 percent respectively. From the Table, it is understandable that after joining construction work the respondent's monthly family income has shown a substantial increase.

In order to study the impact of joining construction work ontheincome of the sample, respondents paired sample 't' test is used.

Null hypothesis: There is no critical difference between the income of the sample respondents before and after joiningconstruction work.

Results of Paired Samples 't'test for income before and after joining construction work

	Paired Differences					t	df	Sig. (2-tailed)
Pair 1 Before-After	Mean	Std. Deviation	Std. Error Mean	125percentConfidence Interval of the Difference				
				Lower	Upper			
	-8396.40000	3478.82464	262.97442	-8915.43037	-7877.36963	-31.929	174	.000

The test result shows that 't' statistics -31.929 is significant at 1 percent level of significance with 174 degrees of freedom. Therefore, the null hypothesis that there is no considerablevariation between the income of the sample respondents before and after joining construction work is to be rejected. Hence, there is a significant increase in the income of the respondents after joining construction work.

Gini Ratio

Ginicoefficient of concentration ratio was used to measure the extent of inequalities in the distribution of income in the households of women respondents before and after joining construction work in the case of those engaged in different works in the study area. The range of Gini ratio would be from 0 to 1. Gini ratio of 0 would mean that every individual would reserve precisely that same income, i.e., perfect equality in distribution. Gini ratio of one means that an individual would reserve the different income, i.e., perfect inequality in income. Gini ratio was calculated by using the formula.

$$G = 1 - \frac{\sum_{k=1}^{N}(P_k - P_{k-1})(Q_k + Q_{k-1})}{10,000}$$

Where,

G = Gini coefficient of concentration

P_k = Cumulative percent of the frequency of women respondents

Q_k = Cumulative percent of income

N   = Number of classes used in the analysis

Gini coefficient ratio G	Before joining construction work	After joining construction work
	0.35607	0.22648

The Gini ratio was estimated to analyse the distribution of household income of the women respondents before and after joining construction work in the study area. The estimated values of Gini ratio before and after joining construction work clearly indicate that there is no perfect equality among the women worker's household income. But the decrease in the value of Gini ratio from 0.35607 to 0.22648 shows that the income inequality between the women respondents has decreased after joining construction work.

SUMMARY OF THE FINDINGS

The significant findings of the study are summarized and presented in this section as follows.

An effort has been made to analyse the socio, economic profiles of the women construction workers such as age, education, caste, type of family, marital status, family size, the number of earning members, occupational background, personal income, family income, family expenditure and savings in both rural and urban areas of Thoothukudi district.

It has found that the mean age of rural women construction workers worked out to be 34.61 years and urban women construction workers worked out to be 38.79 years.

The mean monthly family income of rural and urban women construction workers work out to be Rs. 9280.5 and Rs. 9000.5 respectively.

The Mean monthly family expenditure of the households in rural and urban women construction workers are Rs. 6,763.36 and Rs. 6,828.5 respectively.

The Mean monthly family saving of the households in rural and urban women construction workers are Rs. 2,740.5 and Rs. 2,804.5 respectively.

To study the impact of joining construction works on the income of the sample women, respondents Paired sample 't' test used. The test result shows that the 't' statistics are significant. Therefore, the null hypothesis rejected. Hence, the income of the respondents has increased after joining construction workers both rural and urban areas.

Gini coefficient of concentration ratio was used to measure the extent of inequalities in the distribution of income in the households of women construction workers before and after joining construction works in the study area. The estimated values of Gini ratio before joining construction works (0.35607) and after joining construction works (0.22648) show that the income inequality among the women respondents has decreased after joining construction works in rural areas.The estimated values of Gini ratio before joining construction works (0.31744) and after joining construction works (0.23789) show that the income inequality among the women respondents has decreased after joining construction works in urban areas.

To find out the consequence of the three factors, namely, age, education and family size to the amount of food acquisition and educational upliftment of children received by family members after joining construction work in rural and urban areas, the multiple linear regression models used. The b value of age in the table (Beta = 0.34) shows that as the age of the sample respondent increases they tend to consult other family members extensively for construction work. Secondly, as the education of the sample respondents goes up, there is a decrease in the rate of empowerment of food acquisition and educational upliftment of children received from family members for construction work. Thirdly, as the family size of sample respondent increases, they tend to the obtained empowerment of food acquisition and educational upliftment of children with other family members comprehensively for construction work. The value of R square shows that the three variables (age, education and family size) contribute significantly to the dependent variable up to the extent of 77 percent.

SUGGESTIONS

Considering the findings of the study, the following suggestions recommended.

The number of women workers engaged in house construction activity is considerable, but they are only engaged in coolie type of unskilled work. They must get the effort to engage themselves in a skilled job.

Women workers are getting low wages as compared to their male co-workers for the same type of unskilled work. Hence, 'equal wages for equal work' principle should be followed.

Most of the women workers were unaware of maternity benefits, child care benefits and health care benefits. So they must be made aware of all of these benefits by Municipal Councils.

The steps should take for providing social security schemes to female workers. Facilities like crèches, drinking water, restrooms and bathrooms should be avail on sites. The coverage of general health insurance should give.

The Minimum Wages Act applies to construction workers. Its implementation is weak. Efforts may be taken to improve enforcement of the Act. Here again, organised buyers of the labour market (contractors and maistries) may work against it. Even if itsuccessfully implemented, the Act can assure a fair wage but not enough days of employment. Therefore, the possible solution is to promote a system of formal contracts and to create an independent authority to enforce it. This system should allow recruitment of workers only from the list of registered workers and by the registered contractors. This measure also implies strong and effective market intervention by the government in the market for the labour of construction workers.

Finally, it is also required to give top priority for literacy and family welfare drives, because large families also are seen as a cause of low standard of living, especially among unskilled workers.

CONCLUSION

Empowering women is not just for meeting their economic requirements but also universal social development. Thus, it may conclude from the analysis of the findings of the present study that the life of the women tends to be better economically after joining construction work in both rural and urban areas. For those families involved in construction work, there have been improvements in their economic status and quality of life.

The study has proved that construction work has reduced the incidence of poverty through an upsurge in income, advances the living standards, and empowered women by enhancing their involvement to household income, increasing the value of their assets and economic independence of the rural and urban women. The impact on their lives is not just an economic one; gaining more self-confidence is often a more lasting accomplishment that forms the basis for social and economic improvements. Thus, construction work no doubt empowered the women and contributed significantly to the socio-economic development of rural women.

REFERENCES

Lau, T., Wong, Y. H., Chan, K. F., & Law, M. (2001), Information technology and the work environment-does it change the way people interact at work. *Human Systems Management, 20*(3), 267-280.

Watson, I., Buchanan, J., Campbell, I., & Briggs, C. (2003). Fragmented Futures: New Challenges in Working Life. Sydney, New South Wales: The Federation Press.

Sirgy, M. J., Efraty,, D., Siegel, P & Lee, D. (2001). A new measure of quality of work life (QoWL) based on need satisfaction and spill over theories. Social Indicators Research, 55, 241-302.

http://www.gdrc.org/uem/qol-define.htm