

Constraints of Building Construction Workers in Srirangam, Trichy District, Tamilnadu

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Abstract Construction workers are to be considered as the pillars of the construction industry. The significant and sizeable contribution of the sector towards the GDP of the nation and economic development is highly adorable .But practically; they are not recognized for their work status, as they are categorized as unorganized workers. The workers of the industry are scattered. Due to the insecure and erratic nature of employment they could not avail any legal and social security measures provided by the state and central governments. Since, majority of the workers are illiterate, they are not in the position to get entitled in any union for collective bargaining. This paper strive to enlist the constraints of the construction workers such as, Non availability of social security measures, sporadic job availability, ambivalent working hours, occupational health hazards, long travels and expenditure, low wage and recurrent injuries.

Keywords — construction workers, job security, wages, occupational diseases, unorganized sectors, bad habits of construction workers

I. INTRODUCTION

The difficulties experienced by the construction workers are divergent, based on their jobs like cleaning the work site for construction, reloading and storing bricks, cement , sandbags and iron rods, digging pits, scaffolding and the construction work. An attempt is made to find out the constraints faced by the construction workers at Srirangam. Srirangam is considered to be one of the main pilgrimage centre for hindus. Most of the persons prefer to settle here to disburse their retired life. Hence, building Construction work take place in and around srirangam perennially. Some of the issues like lack of job security, absence of labor welfare programs, uncertain working hours, unsafe working conditions, occupational diseases, injuries., low wages exploitation ,addiction to bad habits and travelling distance are perceived while conducting the survey.

Profile of the study area

Srirangam is an island bounded by cauvery and kollidam on both the sides. Srirangam Taluk is the part of the city of Tiruchirappalli District in south India. According to the 2011 census, the taluk of Srirangam had a population of 210,361 with 104,734 males and 105,627 females. There were 1009 women for every 1000 men. The taluk had a literacy rate of 73.24. More than 50 builders, and number of construction works is in progress in and around Srirangam.

II. RESEARCH METHODOLOGY

Objectives of the study

- To study the problems faced by the construction workers.
- To identify the different types of constraints faced by the construction workers.
- To analyze the association among the demographic factors and the constraints faced by construction workers.
- To offer suggestions to improve the working conditions of construction workers.

Scope of the Study:

This study will throw light on the various constraints faced by constructions workers. This awareness can help in improving their working environment and outcomes of the study can suggest measures to improve the working conditions of construction workers.

Research design: This study was conducted based on descriptive research design.

Data Collection

Primary data was collected using questionnaire. Among the construction work sites in Srirangam ,a random selection of 6 sites were made, Male and female respondents were

selected based on the willingness of the construction worker at each site. The samples included .maestry, mambattiyal chithal and helper Personal interview was conducted to illuminate the problems experienced by the workers at work sites.

Secondary data was collected from industrial reports, and records.

Sample Design:

Non probability convenient sampling method was used to collect the data.

Sample Size:

120 samples were selected for the study.

Statistical tools for Analysis:

Percentage analysis, Weighted average method and Chi-square Analysis were used to analyze the data collected.

III TYPES OF CONSTRAINTS FACED BY CONSTRUCTION WORKERS

A. Lack of job security

The information regarding the availability of job opportunity is disseminated by the supervisor or the agents to the construction workers. Due to this the workers have to pay some amount to the agents as commission .60% of the workers prefer to work under civil contractors based on agreements for a particular work ,or for a particular period and 40% prefer to avail jobs on daily basis .Since they work as casual labors . they are not covered under legal measures, Failure of completion of work, illness. Misunderstanding with supervisor or maestry .will throw them out of the job .Due to the uncertainty in job the workers are in a position to accept the conditions that are made by the agents and supervisors, Moreover ,the job opportunity in building construction work is also not consistent ,Because construction works rely on continuous supply of raw materials, availability of funds at frequent intervals and co-ordination of work among various ,sections such as wiring, flooring, centering, plumbing, scaffolding, painting .and so on.The prevalence of uncertainty in getting work opportunity in construction sector is descendent to job insecurity.

B. Absence of labor welfare programs

The workers in the construction sector belong to the unorganized segment of labor force, The employers are not inspected or investigated by the government officials to follow legal formalities in employing labors .Accordingly, minimum wages act, unorganized sector worker bill. Contract labor act. Workmen compensation act building and construction workers act .are framed by the government for the welfare of the workers, Due to the absence of unionized labors .no welfare programs are

followed .97% of the workers are unaware of labor laws and protective measures of the state government. Only 3% of the workers are registered as construction worker in TAMILNADU KATTIDATHOZHILALARSANGAM.

C. Uncertain working hours

Since the work is casual,no law is restored in enrolment ,terms and conditions of work, wage,working hours. While employing. The work is assigned by the maestry to the workers at the morning.They are are entitled to work for more than 7to 8 hrs. The workers are withheld to finish the work during nights for meager wages. The builders use to employ less workers for more working hours to reduce cost of construction .Long working hours become the genesis for health problems, stress, work place accidents and injuries .Workers employed under builders are tend to more working hours than the workers who choose daily work .79% of the workers work for long duration.21%prefer to work beneath new employers daily.

D. Unsafe working conditions

Construction work is one of the most dangerous occupations in the world. The work atmosphere is conjunctive with smashed bricks. Cement, water, demolished particles, broken pieces of iron. Wood and plastics, They are not provided shoes by the employers, The workers have to work under direct sunlight for prolonged hours without cap or helmet, The air they inhale contains chemical dust and fumes which is hazardous to health, The workers are not accessible to wear Masks while work. At the commencing stages of building construction work the connections to the electrical main boards are erected temporarily, the wire connections are not properly hanged. Owing to this the workers suffer from current shocks. Lack of safe working sites will lead to despondency, absenteeism of labor, frequent falling of illness ,allergy and chronic disease,86% of the workers work under unhealthy working conditions. They are not provided protective equipments like helmet, leather shoes, mask, safe drinking water and sun glasses. They are not trained in utilizing personal protective equipments.

E. Occupational Diseases

The findings of NIOSH, total worker health program, propagated that the hazardous work atmosphere of construction workers have a direct impact on the nature of work done and the health risk status and longevity of life, The work atmosphere of construction workers is highly polluted with noise and ,dust The construction workers are entitled to work with heavy and sharp tools. The vibration caused while digging ,create dislocation of muscles. The dust and fumes present in the work spot affects the respiratory systems .Skin allergy and hyper tension is caused due to sun heat .Continuous work at dirty and polluted atmosphere, especially during roofing they walk on concrete mixtures and mud affect their immune system,

Due to noise their hearing capacity get reduced .Due to irregular food habits, taking tea and tobacco instead of food they are vulnerable to ulcer . Falling at heights is the highest risk during scaffolding work ,Plumbers and carpenters suffer from asthma and skeletal disorders,

F. Injuries

Injuries become the part and parcel in the life of construction workers, They have to work with spade, .axe, hammer ,cutting machines ,sickle and drilling rods. Many of the workers are unskilled and semi skilled. Carelessness, inadequacy of experience and practice while using equipments leads to wounds and bruises. Lack of co-ordination among workers may cause injuries during transformation of cement and bricks, Dropping of objects

from heights causes cutting of organ and loss of blood. chithals confront with blood clot due to carrying of heavy loads..While mixing and, transportation of concrete workers get contusion.

G.Travelling Distance

More than 90% of the construction workers reside in rural areas. They have to travel daily to find job opportunities. Even if they get job , when the work gets over they are in a situation to search for another opportunity .Among the respondents more than 88% of the workers travel 25 to 35 kms daily. They have to spend a substantial part of their wage as transportation charges .Long travel affects the physical and mental health of the workers .They get weary even before they start to work.

Table 1WEIGHTED AVERAGE OF THE CONSTRAINTS

S.NO.	STATEMENT	SA	A	N	DA	SDA	WAV	AL
1	I don't get regular work and feel in secured about my livelihood	30	40	20	10	20	3.41	AGREE
2	There is no labour welfare facilities such as insurance, protection in my worksite.	40	30	10	20	10	3.33	AGREE
3	The working hours are long and uncertain.	25	20	25	35	15	3.04	AGREE
4	I don't feel safe in my work environment due to lack of protective equipments	10	20	30	35	25	2.62	NEUTRAL
5	I get frequent illness due to my work nature	45	25	20	20	10	2.5	NEUTRAL
6	I have to meet medical expenses recurrently due to injuries and hits	35	25	20	30	20	3.29	AGREE
7	I have to travel for long distance to get,and reach this job	37	33	15	25	10	3.5	AGREE
8	I get low wages for my work.	32	28	10	27	23	3.15	AGREE
9	Due to this work, I get addicted to bad habits.	20	25	15	30	30	2.79	NEUTRAL

Source: Compiled from Primary Data

H. Low Wages

The construction workers are categorized as unorganized sector of the labor force hence, they could not raise to bargain for fair wages. Even they have no legal support to get minimum wages. More than 30% of the workers are not paid even the agreed wages on time. Even after the construction work is over, substantial due remains with the builders or the contractors, who are always on the look for devouring these due wages.

I. Addiction Towards bad habits

The influence of Work environment has a direct impact on the behavioral pattern of the workers. Construction workers usually suffer from body pain due to the tedious and heavy work .Most of the construction workers prefer to take alcoholic drinks to get rid of their body pain. Workers who do not have drinking habits are infused easily due to the peer pressure in the work sites. Women workers are addicted towards chewing tobacco. Most of the male

workers apprised that they become viable to smoking habit due to the influence of co-workers.

METHOD USED TO ANALYZE THE RESULTS OF THE QUESTIONNAIRE

The respondents were asked to rate the constraints faced by them in the construction sector on a Likert scale of 1 to 5 as per their degree of impact. The value given to the Likert scale rating is defined below:

- SA – Strongly Agree A – Agree N – Neutral DA - Disagree SDA – Strongly Disagree
- WAV-Weighted average AL- Agreement level

1. Respondents agreed to the opinion (3.41) that they do not get regular work and feel in secured about their livelihood.
2. (3.33) respondents agreed to the opinion regarding the unavailability of labor welfare facilities and insurance protection in their work sites.

3. The respondents (3.04) agreed that the working hours are long and uncertain.
4. (2.62) respondents were neutral appropriating their feeling on unsafe work environment due to lack of protective measures.
5. (2.5) respondents felt neutral about the opinion on frequency of illness due to their work nature.
6. The respondents (3.29) agreed to the opinion regarding their experience of meeting medical expenses regularly due to injuries and hits at worksites.
7. Nearly (3.5) respondents agreed to the opinion that they have to travel for long distance for getting their job.
8. The respondents(3.15) agreed to the opinion that they get low wages for their work.
9. Respondents (2.79) were neutral about the opinion that due to the construction work they were prone to bad habits.

Variables selected for the study

1. Lack of job security
2. Absence of labor welfare programs
3. Uncertain working hours
4. Unsafe working conditions
5. Occupational diseases
6. Injuries
7. Travelling distance
8. Low wages
9. Addiction towards bad habits

PERCENTAGE DISTRIBUTION OF GENDER AMONG CONSTRUCTION WORKERS

Table.2 GENDER DISTRIBUTION

GENDER	NO.RESPONDENTS	PERCENTAGE
MALE	78	65
FEMALE	42	35
TOTAL	120	100

Sources: Compiled from Primary data

The above table reveals that 65% of the male workers were engaged in the construction work and only 35% of the construction workers were females.

PERCENTAGE DISTRIBUTION OF DESIGNATION AMONG CONSTRUCTION WORKERS

Table.3 OCCUPATIONAL HIERARCHY

DESIGNATION	NO.RESPONDENTS	PERCENTAGE
MASON	28	23

MAMPATTIYAL	35	29
CHITAL	30	25
HELPER	27	23
TOTAL	120	100

Sources: Compiled from Primary data

Construction work is sequential, Works are categorized to the workers according to the experience and workmanship. Mason plans the work to be done, assign materials, list the number of workers required and supervise the job, Mampattiyal dig pits and lay bricks and cement mixture to construct walls. Chital assist the work of mampattiyal , they support and provide the required things at work spot. The helpers prepare mixture, break bricks and bring bricks .The above table reveals that Mason, Mampattiyal, Chital and Helpers are required evenly for the construction work,

AGE DISTRIBUTION OF CONSTRUCTION WORKERS

Table.4 AGE DISTRIBUTION

AGE	NO.RESPONDENTS	PERCENTAGE
18-28YRS	29	24
28-38 YRS	36	30
39-48YRS	28	23
49-58 YRS	27	23
TOTAL	120	100

Sources: Compiled from Primary data

The table indicates that 30% ,more number of the workers were between the age of 28 to 38 . 24% of the construction workers were between the age of 18 to 28. 23% of the construction workers were between 39 to 48 and above the age of 49 to 58 there were 23% of worker.

WAGE STRUCTURE OF CONSTRUCTION WORKERS

Table.5 WAGE STRUCTURE

WAGE PER DAY IN RS.	NO.RESPONDENTS	PERCENTAGE
250-350	27	23
351-450	34	28
451-550	30	25
550 & ABOVE	29	24
TOTAL	120	100

Sources: Compiled from Primary data

It is obvious from the table that 28% of the construction workers get wages from Rs 351to 450, 25% of the workers receive between Rs 451to 550 ,24% of the workers earn Rs 550 and above, and the remaining 23% of the work force acquire Rs 250 to 350 as daily wages for their work.

HYPOTHESIS

- Ho : There is no significant relationship between gender and constraints related to wages.
 H1: There is significant relationship between gender and constraints related to wages,
- Ho: There is no Significant association between age of the construction worker and the constraints related to frequent illness due to work
 H1 : There is significant association between age of the construction worker and the constraints related to frequent illness due to work
- Ho: There is no significant association between designation and constraints related to safety in work environment..
 H1 :There is significant association between designation and constraints related to safety in work environment,
- Ho: There is no significant relationship between income and constraints related to bad habits.
 H1 :There is significant relationship between income and constraints related to bad habits,

Chi-square Analysis

Table 6-Relationship between gender and constraints related to wages

WAGES \ GENDER	S A	A	N	DA	SDA	TOTAL	CALCULATED VALUES $\lambda = (O-E)^2/E$
MALE	22	18	8	17	13	78	
FEMALE	10	10	2	10	10	42	
TOTAL	32	28	10	27	23	120	1.968

Sources: Compiled from Primary data

For 4 degree of freedom at 5% level of significance, the table value is 9.4877
 Since, the calculated value (1.968) < table value (9.48) ,Null Hypothesis is accepted.

Table 7- Relationship between age and illness
Hypothesis 2

ILLNESS \ AGE	S A	A	N	DA	SDA	TOTAL	CALCULATED VALUES $\lambda = (O-E)^2/E$
18-28	13	4	3	6	3	29	
29-38	13	6	7	5	3	36	
39-48	10	8	6	4	2	28	
49-58	9	7	4	5	2	27	
TOTAL	45	25	20	20	10	120	4.42

Sources: Compiled from Primary data

For 12 degree of freedom at 5% level of significance, the table value is 21.0261
 Since, the calculated value (4.42) < table value (21.0261) ,Null Hypothesis is accepted.

Table 8- Relationship between Designation and Safety

Hypothesis 3

SAFETY IN WS \ DESIGNATION	S A	A	N	DA	SDA	TOTAL	CALCULATED VALUES $\lambda = (O-E)^2/E$
MASON	2	2	9	8	7	28	
MAMMPATIYAL	3	7	8	12	5	35	
CHITTAL	2	6	7	9	6	30	
HELPER	3	5	6	6	7	27	
TOTAL	10	20	30	35	25	120	4.25

Sources: Compiled from Primary data

For 12 degree of freedom at 5% level of significance, the table value is 21.0261
 Since, the calculated value (4.25) < table value (21.0261) ,Null Hypothesis is accepted.

Table 9- Relationship between Income and Bad Habits

Hypothesis 4

INCOME IN Rs. BAD HABITS	S A	A	N	DA	SDA	TOTAL	CALCULATED VALUES $\lambda = (O-E)^2/E$
250-350	8	7	6	4	2	27	
351-450	4	8	6	7	9	34	
451-550	6	3	2	7	12	30	
551 & above	2	7	1	12	7	29	
TOTAL	20	25	15	30	30	120	37.16803

Sources: Compiled from Primary data

For 12 degree of freedom at 5% level of significance, the table value is 21.0261

Since, the calculated value (37.16803) > table value (21.0261), Null Hypothesis is rejected.

V. FINDINGS

- The research study specify the fact that construction workers experience constraints irrespective of gender .
- The study further portrays that the reason for illness among the construction workers are mainly due to the work culture and not because of age,
- The researcher observed in the investigation regarding the constraints faced by the construction workers were common among all the categories namely mason, mambattiyal, chithal and helpers.
- The analysis lamented the fact that, there exist association between income and bad habits among the construction workers.

VI. SUGGESTIONS

The Government should lay emphasis for the compulsory registration of construction workers at district labor offices. This data help the Government to frame legislative measures for the welfare of the workers, Labor welfare officers should visit construction sites to check and verify whether safety aids like gloves, slippers, masks are provided for the workers and also to test the electricity connections and first aid provisions.

VII. CONCLUSION

The study is an attempt to enlist the constraints of the constructions workers in Srirangam, Many of the constraints arise due to the lack of awareness among the workers and low wage. . Since, they work together for the accomplishment of the building construction, their relationship is temporary, and most of the workers were migrants They do not engage themselves in labor unions. Collective bargaining is absent due to the casual nature of enrolment. The situation may change only through

Government interference in framing legal protection measures for the welfare of the construction workers.

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