

A Study on the Needs of Construction Labour in Sri Lanka

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Abstract

Background: Human capital is a key source for the sustainable economic development of a nation. Even though past studies report a wide range of labour-related problems influencing the efficiency of labour operations in the Sri Lankan construction industry, the importance of fulfilling the labour needs has been limitedly studied. This study aims to view the current status of the fulfilment levels of needs among Sri Lankan construction labour based on the different levels of Maslow's hierarchy of needs.

Methods: A series of interviews and discussions were conducted among 70 construction supervisory workers, who had been handling a variety of labour operations in various types of construction projects in Sri Lanka. By interviewing the labourers working at their worksites and the continuous observations on their recent activities, the construction supervisors answered the fulfilment level of needs in each category of Maslow's hierarchy considering their crews. The results were then validated through a series of meetings and discussions among the engineers and construction managers.

Results: The results confirm that the physiological and safety needs are fulfilled among only three-fourths of Sri Lankan construction labourers, where the love and belonging needs are not fulfilled among 50% of them. Considering the esteem and self-actualization needs, results reported no fulfilment among more than 90% of the Sri Lankan construction labourers. The study also comprehensively identified the major causes behind the current status of the fulfilment levels of the labour needs.

Conclusions: The study highlights the significance of skills development practices for better achievement of needs and life qualities among construction labourers. Findings of this study can be used to make possible predictions on the labour needs in other foreign contexts as well.

Keywords: Construction Industry, Human Needs, Labour Motivation, Maslow's Hierarchy, Sri Lanka

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INTRODUCTION

Background of the Study

Infrastructure development and construction play a considerable role in the economic development of a country, generating a substantial amount of employment opportunities. The infrastructures can be divided into various segments, usually as transport, energy, water, environment and waste management, aero, maritime trade hub, high-rise, housing and townships, industrial cities and tourist cities. The construction industry remains as the second largest and most demanding industry in many developing countries like Sri Lanka after agriculture [1]. It involves a variety of resources such as labour, monetary, technologies, materials and equipment in different phases, namely planning, design, construction and maintenance.

The construction industry is a labour-intensive industry that heavily rely upon labour operations [2]. Labour is the most significant resource for the construction industry, since it plays a vital role in functioning construction operations connected with other resources smoothly [3]. In a typical construction project, the labour costs contribute in a range of 30-50% of the total project costs, despite the fact that these change with the type of projects in a broad range [4]. Hence, it is crucial to improve the efficiency of labour outputs in construction activities for the successful long run of an organization in the construction industry [3].

Past studies report that the construction sector of many developing countries has been experiencing productivity losses, affecting the physical progress of many construction projects [5-8]. A wide range of labour-related problems have been identified as the major issues that affect the efficiency of labour operations in construction projects [1, 9-13]. Lack of motivation of labourers is significant among those issues, especially in the construction industry of many countries [9, 11-12, 14], including Sri Lanka [2, 15-16]. Previous studies highlight

several major causes resulting in a lack of labour motivation in construction projects of many countries, as shown in Table 1.

Table 1: Major Causes for the Lack of Labour Motivation in Construction

Causes	Past Studies
Low salaries and salary delays	[1, 4-6, 8, 17-25]
Lack of job security for labourers	[6, 21, 25-27]
Conflicting job policies	[7, 20, 22]
No labour rewarding mechanisms	[12, 22, 28-29]
Less welfare facilities for labourers	[19, 20, 30]
Improper promotion opportunities	[6, 18, 21]
Lack of proper incentives	[24, 31-32]

In addition, it is noted that the methods of salary payments are also another factor that has led to labourers' dissatisfaction with the organizations in the Egyptian, construction industry [13]. Work dissatisfaction has been identified among the construction labourers in many countries, including India [25], Iran [6], Nigeria [20] and Sri Lanka [8]. Notably, the labour strikes have played a major role in affecting the efficiency of labour operations in many construction projects in Indonesia, due to the work dissatisfaction of labourers [33].

Sri Lankan Context

In Sri Lanka, the post-war era has increasingly stimulated and attracted the funding bodies to invest heavily in large scale capital projects such as high-rise buildings, renovation of airports, ports, roads, highways, land reclamation, water and sanitation [30]. A great portion of the Sri Lankan construction labour comes from farming, and they work both periodical and casual on the need for specific skills in a project. Their abilities and cultural backgrounds vary in a wide

spectrum. The labour shortages and less efficiency of labour have been reported as the major problems facing the Sri Lankan construction industry in the recent scenario [8]. Consultation with industry experts has revealed that unskilled labourers work as skilled labourers in many construction projects in Sri Lanka, due to the existing shortage of skilled labourers. This affects the quality standards of work outputs and causes various problems for contractors such as high material wastage, reworks and delays. The construction firms in Sri Lanka feel this pressure more than other industries, due to the rapid expansion of the industry with the dawn of peace after a three-decades-long war. As a result, the Sri Lankan economy is gradually transitioning from a mere labour-sending economy into both labour sending and receiving economy in the local labour market [34].

Less motivation and poor skills development practices have been the major hindrances against improving labour efficiencies [2]. Studies also report that all the causes mentioned in Table 1, results in less motivation among Sri Lankan labourers in construction, influencing their work efficiency in construction operations [2, 8, 28, 30]. Considering the skills development practices, past studies report the lack of labour training facilities for the Sri Lankan labourers in construction, resulting in the absence of cognitive, soft and job-specific technical skills among labourers working in different trades of the construction industry [28, 35-36].

Though past studies have investigated various factors affecting the labour efficiencies in the Sri Lankan construction sector, those studies have not focused on the importance of fulfilling the labour needs for improving the efficiency of labour operations in construction activities. According to Central Bank of Sri Lanka [37], hundreds of thousands of labourers are working on various construction projects in Sri Lanka. Considering these aspects, this study intends

to investigate the current industry's practices and community's behaviour on the fulfilment of the needs of construction labour in Sri Lanka. Further this study aspires to view the current status of Sri Lankan construction labour, based on the different levels of Maslow's hierarchy needs. This may lead the firms to upgrade their organizational policies and management practices with the awareness of the fulfilment of labour needs.

Abraham Maslow's Hierarchy of Needs

Abraham Maslow proposed the theory of human needs, which is popularly known as Maslow's hierarchy of needs in the human environment and society. Maslow's hierarchy consists of five levels of needs, namely physiological needs, safety needs, love and belonging needs, esteem needs and self-actualization needs, as shown in Figure 1.

According to Aruma and Hanachor [39], physiological needs are basic human needs that are critical for survival of humans, such as food, water, clothing, shelter, sleep as well as procreation. Safety or security needs to deal with protection and survival from messed situations, social disorder, social disturbance and physical dangers in the human environment. According to Anyanwu *et al.* [40], love and belonging indicate the need to be a part of a group such as family members, colleagues in a workplace, friends and other social groups in the society. It helps humans to have the confidence in their own abilities to contribute reasonably to the decision-making process that promotes community development in society.

According to Aruma and Hanachor [39], esteem needs are always natural, where humans seek self-respect, recognition, reputation, status and self-worth among others in their respective social groups. Self-actualization is the fifth level of needs in Maslow's hierarchy, which deals with the aspiration of humans to develop their talents and potential that are hidden in them for becoming the best that he or she is capable of being in society.

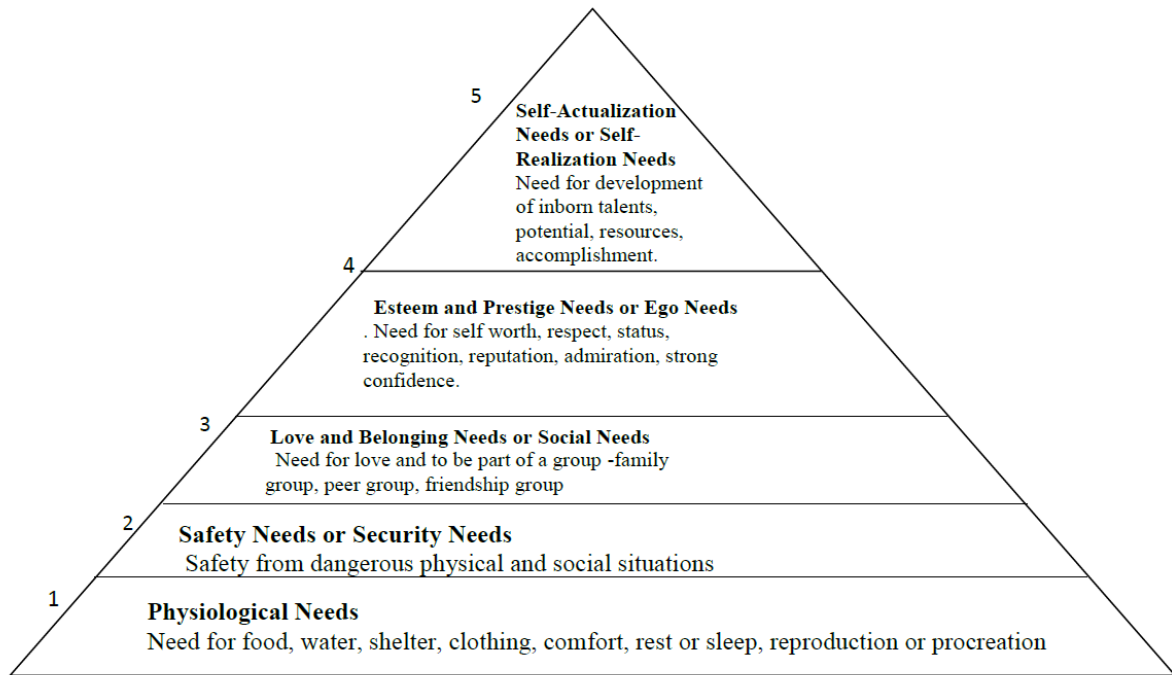


Figure 1: Abraham Maslow's Hierarchy of Needs
(Source: Onah [38])

METHODOLOGY

A series of interviews and discussions were conducted among construction supervisory workers from the Sri Lankan construction industry to view the current status of construction labour, based on the different levels of Maslow's hierarchy needs. Here, the interview respondents were the construction supervisory workers, since they are the industry workers who directly handle labour operations with continuous observations on labour behaviour. A total of 70 construction supervisory workers were selected from Sri Lankan construction projects, where the majority were handling labour operations in building projects.

Altogether, these 70 construction supervisory workers had been handling more than 500 construction labourers in various types of ongoing construction projects, including building construction, road/highway/bridge construction and water supply and irrigation work when the interviews were performed.

The construction supervisors were instructed to conduct interviews among the

labourers who are directly handled by them. The interview questions were designed mainly to assess the fulfilment levels of needs among labourers considering the five categories of Maslow's hierarchy of needs. Based on the interview outcomes from the respective labourers and the continuous observations on their recent activities, construction supervisory workers decided the fulfilment levels of needs in each category of Maslow's hierarchy for their respective crews.

Considering the importance of the perspectives of engineers and construction managers in the decision-making processes related to construction management practices and organizational policies, a series of meetings and discussions were then conducted among construction experts who were the engineers and construction managers to validate the results obtained.

RESULTS AND DISCUSSION

The majority of the interviewed construction supervisors had a work experience of 6 - 10 years (30.0%), followed by 1 - 5 Years of work experience (25.0%) in the construction field. None of them had a work experience less than

1 year in the construction field, as shown in Table 2. Further, majority of them were handling building construction projects (40.0%) and road, highway & bridges projects (38.6%).

Table 2: Detailed Profile of the Interviewees

Variable	Percentage of Interviewees
Work Experience in the Construction Field	
Less than 1 Year	0.0%
1 - 5 Years	25.7%
6 - 10 Years	30.0%
11 - 15 Years	20.0%
15 - 20 Years	17.1%
More than 20 Years	7.1%
Current Working Project Type	
Buildings	40.0%
Road, Highway & Bridges	38.6%
Water Supply & Irrigation	17.1%
Dredging & Others	4.3%

The results obtained for each category of Maslow’s hierarchy are shown in Figure 2. The overall results show that the basic needs, including physiological and safety needs, are not fulfilled among a quarter of Sri Lankan construction labourers, where no fulfilment was reported among half of Sri Lankan construction labourers for the belongingness and love needs. When it comes to the esteem and self-actualization needs, no fulfilment was reported for more than 90% of the labourers working in Sri Lankan construction.

Physiological Needs

Physiological needs are the needs that all humans must have met for the survival of their lives. The results show that, though the lives of majority (70%) of Sri Lankan construction labourers are with the fulfilment of physiological needs, the basic needs are not

completely fulfilled for some labourers (30%), in the current scenario.

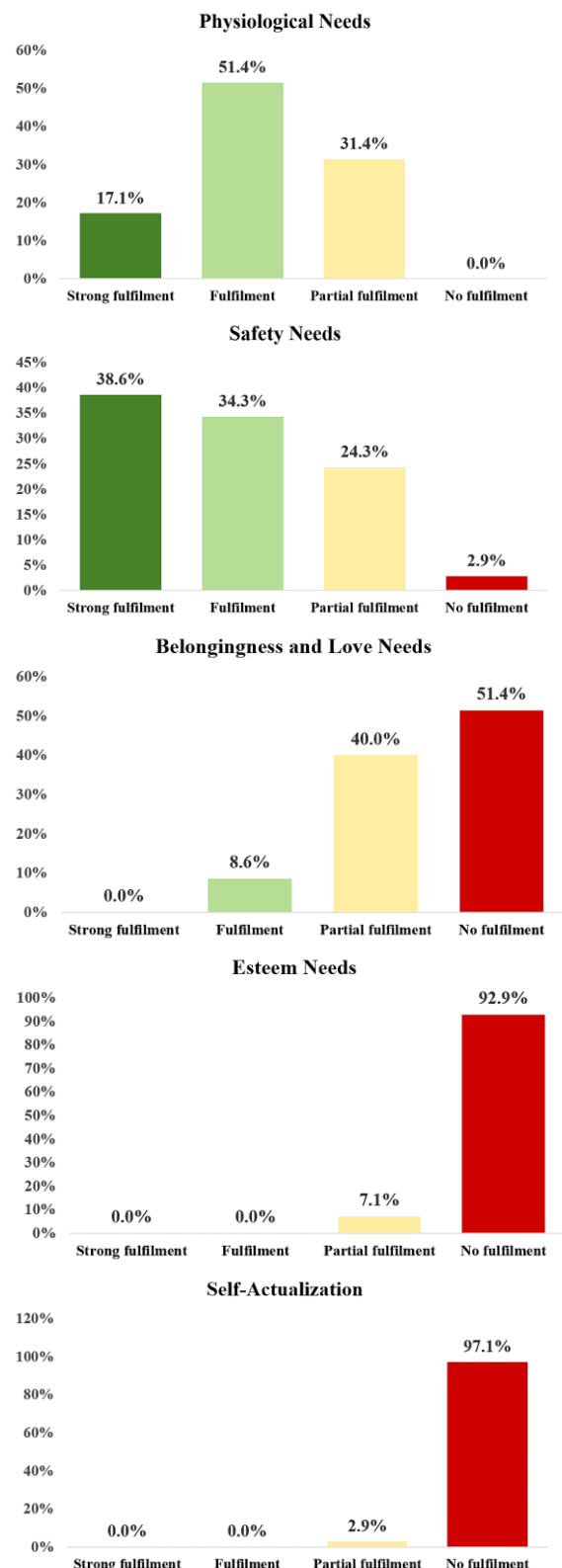


Figure 2: Fulfilment Levels of Maslow’s Hierarchy of Needs among Sri Lankan Construction Labour

Previous studies have revealed that the Sri Lankan construction labourers do not get adequate salaries in some firms, and this is the major reason for those labourers' basic needs not being fulfilled at a satisfactory level [8, 27, 30, 36]. Some experts have also highlighted that most labourers who work in newly started firms have been experiencing problems related to job security, salary delays and low salary payments leading them and their families to face many economic troubles. Hence, some labourers leave their job and involve in other ways of income earning, and this has resulted in a labour shortage in construction projects in Sri Lanka. The current economic crisis of the country due to increasing inflation and recent Covid-19 pandemic lockdowns have aggravated the current scenario. Several studies have highlighted that there has been a significant difference between the salaries of Sri Lankan labourers compared to labourers working in middle-east countries [36, 41]. Al-Emad and Rahman [41] highlight the job demands for construction labourers in those countries, especially the employment opportunities for the labourers migrating from other countries, namely Chinese, Bangladeshi, Indians, Indonesians, Korean, Nepalese and Sri Lankan. Al-Emad and Rahman [41] report a significant increase in the self-motivation levels of the construction labourers working in Saudi Arabia, due to the recent improvements of incentives and salary packages resulting in better salary, which offers a better life to their families and relatives at home countries.

Safety Needs

The safety and security needs are crucial after the physiological needs of all humans for the survival of their lives in messed situations, social disturbance and physical dangers in the human environment. The results show that the safety needs are fulfilled only for three-quarters of labourers working in Sri Lankan construction projects. Considering the other one-quarter of Sri Lankan construction labourers, the interviewed construction supervisors revealed that they have been

facing some issues related to physical dangers due to various reasons, rather than any social disorders and disturbances.

Many labour injuries and accidents have been reported in many construction worksites, due to poor health and safety practices. Similar problems were also reported in other countries, including Australia [42], Egypt [7], India [14, 43], Nigeria [44] and South Africa [22]. Safe construction methods and good work conditions have a significant impact on labour morale, reducing the chances of workplace injuries along with resulting in financial liabilities and the need to take time off. Provision of health and safety trainings for labourers will be beneficial to reduce accidents and injuries in construction projects, and this can also protect the company from facing costly legal battles with the management/organization, as well as preventing labourers from leaving the job site due to work-related illnesses. In addition, the excessive workloads and uncontrolled behaviours of labourers in smoking and alcohol/drugs usage are also other facts resulting in physical dangers among labourers in the Sri Lankan construction.

Belongingness and Love Needs

Love and belonging are important for humans to have confidence in their own abilities and manage stress, leading to a decrease in the physical and mental impact of difficult times in human lives. Findings of this study reports the unfulfillment of belongingness and love needs among half of the labourers working in Sri Lankan construction projects. The experts pointed out that the labourers' soft skills related to their psychology, communication and discipline need to be improved for making more labourers to reach a satisfactory level of love and belonging from their families, colleagues, friends and other social groups in the society.

Recent studies also reported a similar need for construction labourers in Sri Lanka [28, 30]. The respondents also revealed that

the lack of focus on communication skills in school education and vocational training programmes may also be a significant factor for this. Notably, most Sri Lankan labourers working in construction sites have not completed their school education at least up to the General Certificate of Education Ordinary Level (G.C.E. O/L).

Considering the construction labourers working in other countries, Robles *et al.* [5] have reported that poor communication skills in Spanish labourers, despite their ability to adapt to changes in the environment. Meanwhile, Saravanan and Surendar [11] have stated that Indian labourers do not have a proper understanding and coordination with the other co-workers during construction operations. Having a good understanding among workers builds the construction crews strong, leading to a good relationship between the workers and employers, which results in the success of construction organizations in the long run. The psychological problems and poor discipline of construction labourers have also significantly influenced the fulfilment of belonging needs of labourers in other countries, including India [21], Nigeria [45] and Vietnam [13].

Esteem Needs

In general, humans seek self-respect, recognition, reputation and self-worth among others in their society. These play an important role in both physical and emotional well-being, leading to identifying the life goals and the direction of life status. This study reports no fulfilment of esteem needs among more than 90% of the labourers in the Sri Lankan construction industry. The respondents spotlighted that the skill shortage among Sri Lankan construction labourers under the below-listed categories is the major barrier against the fulfilment of their esteem needs.

Considering the comparison results on the work-related skills between the Sri

Lankan and foreign labour forces presented by Manoharan *et al.* [36], similar situations may also be predicted among the foreign labourers, namely Chinese, Indian, Bangladeshi, Nepalese, Saudi Arabian, Malaysian and Korean.

Transferable skills: Learning ability; Reading, writing and listening; Teamwork; Memorization.

Self-management skills: Critical reasoning; Self-motivation; Commitment; Participation; Punctuality.

Self-Actualization

Self-actualization is the top level of needs in Maslow's hierarchy that enables humans to accept themselves and others for how they are. This is associated with multiple indicators of well-being, including greater life satisfaction, curiosity, self-acceptance, positive relationships, environmental mastery, personal growth, autonomy and purpose in life [46]. Findings of this study reports no fulfilment of self-actualization needs among more than 97% of labourers in the Sri Lankan construction. It is important to have self-confidence and positive thinking abilities to become spontaneous in thought and action.

Further, the interviewed construction supervisors reported the unavailability of these abilities among Sri Lankan construction labourers. They also highlighted that the below-listed transferable and self-management skills are required to be improved up to a sufficient level among Sri Lankan construction labourers for their achievement of self-actualization needs in future situations. Considering the comparison of the skills between the Sri Lankan and foreign labour forces presented by Manoharan *et al.* [36], similar situations can be experienced among the foreign labourers, including Chinese, Indian, Bangladeshi, Nepalese, Saudi Arabian, Malaysian and Korean.

Transferable skills: Leadership; Planning; Multiple work coordination.

Self-management skills: Problem-solving; Decision making.

CONCLUSIONS

This study has reviewed the current status of Sri Lankan construction labourers based on the different levels of Maslow's hierarchy needs. The study has also identified the major reasons behind the current status of the fulfilment levels of the labour needs. It specifically spotlights the need for upgrading the current skills development practices to enable construction labourers to achieve their needs and life qualities in better ways under different categories.

Findings of this study recommend to implement necessary training facilities, rewarding mechanisms, proper incentives, promotion opportunities and welfare facilities for construction labourers at the organizational level. This may enhance securing of jobs by labourers as well as ensure the higher performance of labour operations, moving towards higher productivity, profitability and sustainability of the organizations in the long run. This study also recommends future studies focusing on skills development practices for construction labour. The overall study outcomes are expected to contribute to the possible changes in management practices and organizational policies with the awareness of the fulfilment of labour needs. Even though, findings of this study are limited to the Sri Lankan construction sector, some of these findings may also be tested in other developing countries in similar scenarios.

CONFLICT OF INTEREST

No potential conflict of interest was reported by the authors.

AUTHORS' CONTRIBUTIONS

KM: Conceptualized, designed the research, carried out the investigation, performed data curation and analysis, and wrote the

manuscript. PD: Supervised the study and reviewed the manuscript. CP: Supervised the study and reviewed the manuscript. DD: Supervised the study and reviewed the manuscript. RS: Supervised the study and reviewed the manuscript.

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