

Examining the Influence of Various Factors that Affect Construction Professionals Lifestyle – A Case of Tamil Nadu and Kerala



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Abstract The construction sector has a low quality of lifestyle when compared to other occupations due to a variety of problems associated with their work. The work-life balance is also harmed as a result of the unhealthy lifestyle prevalent among construction professionals. The factors that contribute to the scarcity of construction personnel ready to work in their sector are investigated in this study. This study reveals several common factors affecting construction professionals' lifestyles to improve their quality of life. The first step was to conduct a literature study to identify and summarize significant lifestyle influencing factors. Then, hypotheses were given on the impact of five different factors (financial, organizational, quality-health and environmental, work-related, and social) on construction professionals' lifestyles. The information gathered from 180 construction professionals in Tamil Nadu and Kerala via questionnaires was statistically examined. The findings revealed that these five factors have a major impact on the lifestyle of construction professionals. The financial factor is the primary factor that influences the lifestyle of construction professionals by affecting their socio-economic position. This pioneering study presents a detailed overview of the current construction professional lifestyle and the essential factors that influence it. The association between each factor and the more relevant factors was discovered using statistical analysis, which will serve as a guide for researchers, policymakers, and construction professionals to conduct additional research and improve the current lifestyle. A healthier lifestyle will increase an employee's productivity and, as a result, the company's worth.

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1 Introduction

In India, agriculture is the most important industry, followed by the construction industry (CI). India's CI contributes 7.74 percent of the country's total GDP (Ministry of Statistics and Programme Implementation Planning Commission, Government of India, 2017). The CI is a naturally stressful environment, with high employment demand and little job security [1–3]. The most stressful and health-damaging experience is that of social assistance [4, 5]. The industry employs a considerable number of people, and the government, through both the public and private sectors, supports numerous infrastructure investment programs [6]. While the CI provides a wide range of career opportunities across the country, due to a lot of factors, including financial factors (FF) [7], organizational factors (OF) [8, 9], quality, health, and environmental factors (QHEF) [10–12], work-related factors (WRF) [13–15] less civil engineers are willing to work in the same field. This reluctance could be attributed to work-related issues that influence construction engineers' lifestyles.

Due to the current shortage of construction professionals (CP) to work for construction companies, it is vital to determine the causes and critical aspects that are contributing to this problem [16]. Construction workers have a poor quality of life when compared to other occupations because of a variety of variables associated with their work [17–19]. The top-level management's leadership style is a crucial organizational factor that defines the lifestyle of professionals since it affects the superior-subordinate relationship. Therefore, due to this unhealthy lifestyle, work-life balance is failing [20]. As a result, this study is crucial in establishing the factors that contribute to a CP shortage in the construction industry. The purpose of this study is to find out what factors influence CPs' lifestyles and to recommend and suggest solutions to improve their quality of life.

2 Methodology

The following procedures make up the methodology for this paper: literature study, identification of multiple factors that influence CPs' lifestyle, designing of questionnaire, gathering of data and analysis, conclusion, and discussion.

The initial stage was to acquire and study all types of literature relating to the topic. Previous research has identified the factors that influence CP's way of life. Following the discovery of factors, the top-ranked factors were chosen for further investigation. The questionnaire was created based on the variables that were rated. A random sample method was used to conduct a questionnaire survey among CP from various construction organizations in Tamil Nadu (TN) and Kerala. The information

was gathered from some people working in the construction industry in the private sector. Construction professionals in construction organizations received 200 sets of questionnaires. 180 of the 200 samples reacted, and the data was examined using statistical methods. The data analysis and hypothesis testing was carried out by using the software IBM SPSS Statistics for Windows, version 28.0.1 (IBM Corp., Armonk, N.Y., USA).

3 Results and Discussions

3.1 Frequency Analysis of Demographic Profile

From the frequency analysis as shown in Fig. 1 (Figs. 1a to h), most of the sampled respondents are male, which accounted for nearly 64, and 42.20% of the respondents fall under the age group of 18 to 25 years. Regarding the educational qualification, it is found that 76% of them are undergraduates in construction-related engineering disciplines and that 70.60% of the respondents are working as site engineers. Likewise, 54% of the respondents are from the state of Kerala, and 46% of the respondents are from TN. The majority of the sampled respondents have one to five years of working experience, which accounts for nearly 85%. Similarly, 58.30% of respondents are daily working for eight to ten hours and 92.20% of respondents are working six days a week.

3.2 Reliability Analysis

The instrument's dependability was evaluated by Cronbach's Alpha's coefficient of reliability. Cronbach's Alpha is a number ranges from 0 to 1. If the Cronbach's alpha nearer to 1, the better the inner reliability and thus the trustworthy of the questionnaire's items is justified. Generally, if the Cronbach's alpha value is more than 0.7, the questionnaire is regarded as reliable in accurately examining the constructs [15]. The reliability analysis shows that the FF has the Cronbach's alpha value of 0.898; OF has the coefficient value of 0.766; QHEF has the reliability coefficient value of 0.798; similarly, the WRF has the Cronbach's alpha value of 0.842 and SF has the coefficient value of 0.754. Accordingly, the questionnaire used in this study is reliable and can be administered to the respondents.

3.3 Independent Sample t-Test

Hypothesis 1

Hypothesis 1: There is no significant difference in the perception of employees based on gender toward various lifestyle factors in the construction industry.

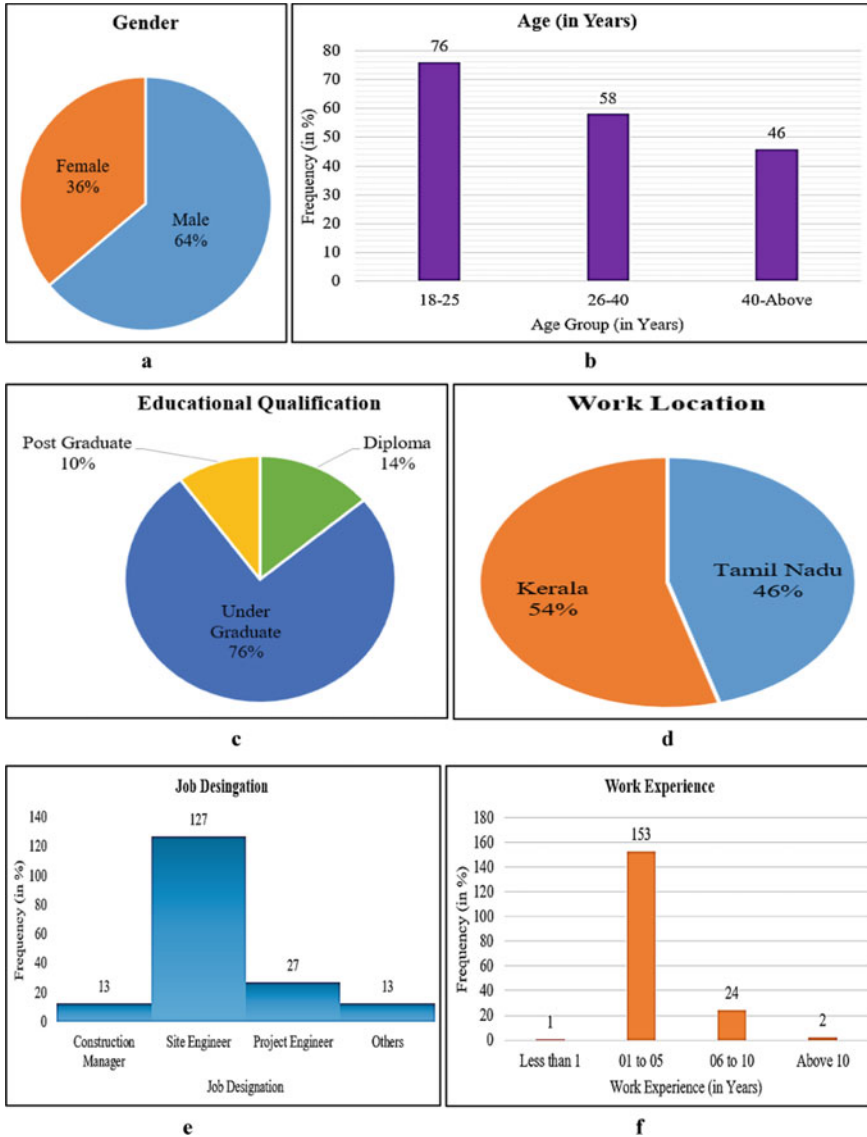


Fig. 1 Demographic profile of the respondents

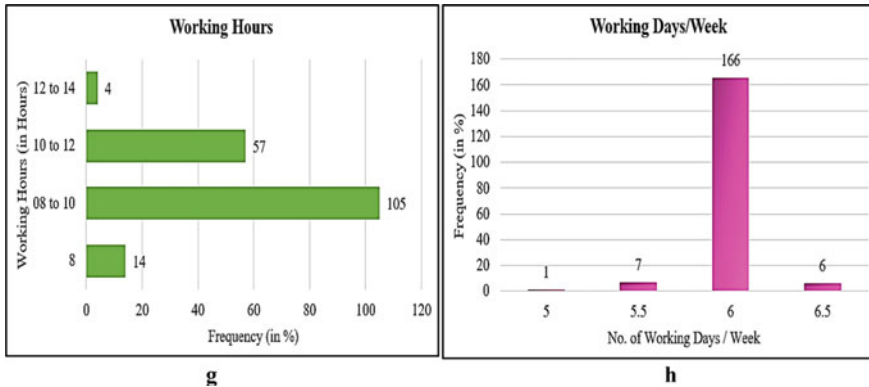


Fig. 1 (continued)

Table 1 Independent sample t-test: Gender vs Employee lifestyle factors in the construction industry

Time spent on the activities	Gender	N	Mean	Std. deviation	t-value	p-value
Financial factors	Male	115	3.94	0.59	2.8634	0.004**
	Female	65	3.71	0.51		
Organizational factors	Male	115	3.80	0.46	2.9224	0.003**
	Female	65	3.90	0.43		
Quality, health and environment factors	Male	115	3.57	0.92	1.05	0.295
	Female	65	3.72	0.87		
Work related factors	Male	115	3.84	0.65	1.036	0.302
	Female	65	3.73	0.84		
Social factors	Male	115	3.65	0.24	2.4444	0.015*
	Female	65	3.64	0.24		

Gender was used as the independent variable, and employee lifestyle factors such as FF, OF, QHEF, WRF, and SF were used as the dependent variables in an independent sample t-test. Since the p-value is less than 0.05 as shown in Table 1, infers that male and female participants of the study vary notably on the mean ranking for lifestyle aspects such as FF, OF, and SF. In the study’s lifestyle factors, such as QHEF, and WRF, however, there was no remarkable difference in the mean ratings of male and female respondents.

Therefore, the hypothesis that “There is no significant difference in the perception of employees based on the gender toward various lifestyle factors in the construction industry” was rejected for the factors like FF (1% level), OF (1% level), and SF (5% level). However, the hypothesis was accepted for the factors like QHEF and WRF.

Table 2 Independent sample t-test: State vs Lifestyle factors in the construction industry

Time spent on the activities	State	N	Mean	Std. deviation	t-value	p-value
Financial factors	Kerala	98	3.94	0.60	2.6399	0.009**
	Tamilnadu	82	3.71	0.56		
Organizational factors	Kerala	98	3.80	0.65	2.0408	0.0428*
	Tamilnadu	82	3.59	0.73		
Quality, health and environment factors	Kerala	98	3.69	0.93	1.093	0.276
	Tamilnadu	82	3.55	0.87		
Work related factors	Kerala	98	3.94	0.64	2.804	0.006**
	Tamilnadu	82	3.64	0.79		
Social factors	Kerala	98	3.75	0.66	2.2893	0.0232*
	Tamilnadu	82	3.53	0.62		

Hypothesis 2

Hypothesis 2: There is no significant difference in the perception of employees based on their state of residence toward various lifestyle factors in the construction industry.

This hypothesis was tested using an Independent sample t-test with the state that the respondents represent as the independent variable and employee lifestyle factors like FF, OF, QHEF, WRF, and SF as the dependent variables. Since the p-value for the lifestyle categories FF, OF, WRF, and SF is less than 0.05 as shown in Table 2, it is obvious that the respondents from Kerala and TN differ significantly on the mean ranking. The mean ranking of respondents from Kerala and TN for the lifestyle factor “QHEF” did not differ significantly.

Therefore, the hypothesis that “There is no significant difference in the perception of employees based on the state of residence toward various lifestyle factors in the construction industry” was rejected for the factors like FF (1% level), OF (1% level), and WRF (1% level) and SF (5% level). However, the hypothesis was accepted for the factor namely QHEF.

3.4 One Way ANOVA

Hypothesis 1

Hypothesis 1: There is no significant difference in the perception of respondents based on the educational qualification toward employee lifestyle factors in the construction industry.

The significance of the variation in respondents’ perceptions of employee lifestyle factors in the construction sector depending on educational qualification was tested using a one-way ANOVA. The educational qualification of respondents categorized as Diploma, BE/Btech, ME/Mtech, and Others was used as the independent variable.

Table 3 One way ANOVA test for testing the significance of difference on the lifestyle factors of construction engineers based on qualification

Time spent on the activities	Diploma (N = 25)		BE/Btech (N = 137)		ME/Mtech (N = 16)		F – value	p-value
	Mean	SD	Mean	SD	Mean	SD		
Financial factors	3.27	0.24	3.27	0.25	3.05	0.32	5.921	0.003**
Organizational factors	3.32	0.37	3.29	0.37	3.34	0.49	0.160	0.852
Quality, health and environment factors	3.75	0.71	3.60	0.88	3.59	0.85	0.303	0.739
Work related factors	3.76	0.70	3.79	0.69	3.72	0.55	0.109	0.897
Social factors	3.74	0.33	3.64	0.27	3.48	0.51	3.793	0.02*

The employee lifestyle factors like FF, OF, QHEF, WRF, and SF were taken as the dependent variable.

Table 3 displays the average ranking of responders with various educational backgrounds. As the p-value is more than 0.05, it is obvious that there was no remarkable difference in the mean evaluation between participants with different qualifications on criteria such as OF, QHEF, and WRF. However, since the p-value is smaller than 0.05, notable changes in the mean evaluation across respondents with various degrees were identified for factors such as FF and SF.

Thus, the null hypothesis that “There is no significant difference in the perception of respondents based on the educational qualification toward employee lifestyle factors in the construction industry” was accepted for the employee lifestyle factors like OF, QHEF, and WRF. However, the hypothesis was rejected for the factors like FF and SF at a 1% level of significance.

Hypothesis 2

Hypothesis 2: There is no significant difference in the perception of respondents based on the age group toward employee lifestyle factors in the construction industry.

The significance of the difference in respondents’ perceptions of employee lifestyle factors in the construction industry based on their age group was tested using a one-way ANOVA. The age group of respondents categorized as 18–25, 25–35, and 35–45 years used as the independent variable. The dependent variable is employee lifestyle factors such as FF, OF, QHEF, WRF, and SF.

Table 4 shows the mean rating of respondents from different age groups. Since the p-value is less than 0.05, it is apparent that there was a significant difference in the mean rating between respondents with various qualifications on all factors such as FF, OF, QHEF, and WRF. However, because the p-value was greater than 0.05, the study identified no significant variations in mean ratings between respondents of different age groups for the category SF.

Table 4 One Way ANOVA test for testing the significance of difference on the Lifestyle Factors of Construction Engineers based on Age Group

Time spent on the activities	18–25 Years (N = 76)		25–35 Years (N = 58)		35–45 years (N = 46)		F – value	p-value
	Mean	SD	Mean	SD	Mean	SD		
Financial factors	3.30	0.26	3.19	0.19	3.22	0.32	3.112	0.047*
Organizational factors	3.43	0.41	3.27	0.37	3.25	0.39	3.492	0.033*
Quality, health and environment factors	3.80	0.82	3.55	0.88	3.43	0.85	3.118	0.047*
Work related factors	3.87	0.66	3.86	0.66	3.55	0.72	3.649	0.028*
Social factors	3.65	0.28	3.65	0.30	3.60	0.38	0.350	0.705

Thus, the null hypothesis that “There is no significant difference in the perception of respondents based on the age group toward employee lifestyle factors in the construction industry” was rejected for the employee lifestyle factors like FF, OF, QHEF, and WRF at 5% level. However, the hypothesis accepted for the factor namely SF.

4 Conclusion

FF, OF, QHEF, WRF, and SF are the five factors identified in the study, and they are all vital in guaranteeing the quality of life of construction employees. The results of the questionnaire survey show that the discussed issues have a significant impact on a construction professional’s lifestyle. As a result, by anticipating the causes and making positive changes in one’s life, a construction professional can live a better life. Employee productivity and organizational value will increase as a result of a healthier lifestyle. As a result, it is suggested that a CP’s lifestyle can be enhanced if the factors (FF, OF, QHEF, WRF, and SF) are correctly examined. Few unique solutions are being offered to combat the unhealthy lifestyle of construction professionals in the building business, such as the Just-In-Time (JIT) concept, which is a globally emerging production technique that overcomes many challenges in the construction sector [21]. Future research could look into the role of leadership styles and safety management in the construction sector, as well as their relationship to construction professionals’ lifestyles. Currently investigating a portion of this work in the Indian context is in progress, and it can be expanded to the global construction forum.

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