

Problems faced by Small Scale Construction Contractors in India

Prof. V Srinivasa Raghavan¹, Karthik Kumar V²

¹Associate Professor, Civil Engineering Department, Manipal Institute of Technology, Karnataka, India

²Post graduate student, Civil Engineering Department, Manipal Institute of Technology, Karnataka, India

Abstract - Construction becomes the basic input for socio-economic development of any country. The construction industry generates substantial employment. Various research has been carried out in order to find out the problems faced by contractors in the field of finance, technical and management skills, business planning and strategy, health and safety issues which influence the success or failure of the contractors. The aim of this study was to identify the major problems that are faced by small scale construction contractors in India. Within this context, a survey was carried out among the small scale contractors in India. Analysis and ranking of the factors are done by using Statistical Package for the Social Sciences (SPSS) software. Based on the result, delayed payments by clients, fluctuation in material cost, owners involvement in construction phase, cash flow management and increased competition in the construction field are found to be the major problems faced by small scale construction contractors in India.

Key Words: Small Scale, Problems, Contractors, Statistical Package for Social Sciences (SPSS).

1. INTRODUCTION

Construction Industry plays an important role in the economy of India. It is the second largest industries in the country after agriculture and has been contributing around 8 percent to the Nation's Gross Domestic Production and it is generated around 41 million jobs in the country. Despite the growth, construction industries faces many constraints although it employees large number of population, less than 6 percent has the benefit of structured training and skill building. Through the recent studies it has been identified that there is a steep decline in the failure rates of small scale construction industries in India. The number of research have been carried out for solving the industry's **problems** in developing countries. However, lack of progress was noted in solving such problems due to the in-appropriateness of some of the recommendation, lack of resources for initiatives, neglecting the construction industries by government [2]. As per the survey conducted by Construction Industrial Development Council of India in 2011 there are around 31000 enterprises in the construction industry in India out of which around 29600 are the small scale enterprises, around 1050 are the

medium scale enterprises and around 350 are the large scale enterprises[8]. Small scale construction industries represent over 95 percent of the total number of construction industry in India. Hence the research has been carried out to identify the major problems faced by a small scale construction contractors in India.

2. LITERATURE REVIEW

Ncwadi and Dangalazana (2005) [1] studied challenges facing the emerging contractors involved in the construction of low cost housing in Nelson Mandela Metropole, South Africa. The study focused the area such as business strategy and planning, customer and market focus, people management, information management as well as health and safety issues. Questionnaire survey was carried out by purposive sampling of 102 emerging contractors out of which 58 were responded. Based on the result it is identified that delayed payments, crime, racial issues, strategic planning, shortage of funds are the major problems facing the emerging contractors in South Africa.

Gadekar and Pimplikar (2015) [2] identified success and failure factors of Indian construction companies. A survey was carried out among 30 construction companies. The ranking of the factors has been determined by using the point rating techniques. The finding from the research is cash flow management, insufficient capital and inadequate sales are the most important factors for the success of the construction companies among the large, medium and small scale firms respectively.

Arslan and Kivrak (2008) [3] studied on critical factors to company success in the construction industry. A survey has been carried out among 40 Turkish construction company. The ranking of the factors were determined by using the simple multi attribute rating technology. The Findings from the result are business management, financial management and owner/manager characteristics were determined as the most important factors to the company success.

Thwala and Mvubu (2008) [4] carried out a research on current challenges and problems facing by small and medium scale contractors in Swaziland. A questionnaire survey was carried out by random sampling among 87 contractors. The study concludes that failure among the small and medium size contractors in Swaziland are

mainly due to lack of resource for complex construction projects, inability to provide securities, inadequacy in technical and managerial skills, insufficient knowledge and experience, slow and non-payment by government after completing a government projects.

3. RESEARCH METHODOLOGY

The aim of this research is to find out the major problems faced by small scale construction contractors in India. From the various literature review a list of problems faced by the contractors are prepared and a comprehensive questionnaires were designed.

The questionnaires composed of two sections; first part was regarding the general information of the respondents. The second part was on a list of problems faced by the contractors. The degree of importance of these problems were measured by means of Likert scale of 1-5. The ratings are as follows, 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree [1]. The chosen group of respondents are mainly the top-level managers and owners of the company. The respondents were asked to rate their perceptions about the listed problems in the questionnaire to improve its business activity.

Descriptive Statistical analysis was used to rank the problems and correlation analysis was used in order to test the relationship between the problems faced by contractors. The analysis is done by using SPSS software.

4. SAMPLING METHOD

The probability sampling method using simple random sampling was found to be most appropriate for the research [4]. The selection criteria adopted to form the sample size included the following:

- a) Small scale contractor with less than 200 employees in their company.
- b) Minimum qualification of respondent should be a diploma/degree.

The following sample size formula for infinite population is used to arrive at representative number of respondents [7]:

$$SS = \frac{(Z)^2 * SD * (1 - SD)}{(M)^2} \quad (1)$$

Where,

SS: Sample Size

Z: Confidence Level= 90%

M: Margin of error=10%

SD: Standard Deviation=20%

Z for 90% Confidence Interval=1.645

Hence, Sample Size= 43.29 ≈ say 43 respondents

Pilot test was carried out for 10 samples. To find out the internal consistency of obtained responses, Cronbach's reliability test was carried out by using the SPSS software. The reliability result obtained was 0.854.

5. RESULTS AND DISCUSSIONS

5.1 Descriptive Statistical Analysis

The respondents were asked to rate the degree of importance level of the problems. Descriptive statistical analysis was carried out for the obtained responses to determine the ranking level of each problems by using the SPSS tool. The table 1, below shows the ranking of the problems according to the degree of importance perceived by the respondents. Delayed payments by clients, fluctuation in the material cost, owners involvement in the construction phase, cash flow management and increased competition in the construction field are considered as the top 5 major problems faced by small scale construction contractors in India.

TABLE I. PROBLEMS FACED BY SMALL SCALE CONTRACTORS

	List of problems	Mean	Rank
1	Delayed payments by clients	4.16	1
2	Fluctuation in material cost	4.05	2
3	Owners involvement in construction phase	3.91	3
4	Cash flow management	3.86	4
5	Increased competition in the construction field	3.84	5
6	Absenteeism of workers in construction site	3.81	6
7	Too much focus on low prices at tender stage	3.81	6
8	Lack of ability to provide a safety measures to the workers in the construction site	3.74	7
9	Lack of management skills	3.70	8
10	High number of employees leaving the company	3.63	9
11	Bad debts (Outstanding payments that cannot be collected)	3.63	9
12	Ability of the company to compete with medium and large Scale construction industries	3.60	10
13	Lack of experience in the construction field	3.60	10
14	The ability to develop Long-term Strategy	3.58	11
15	Inadequacy of working capital	3.49	12
16	Access to updated information & technology on construction	3.42	13
17	Poor location of the business	3.28	14
18	High rate of interest on loans	3.26	15
19	Insufficient profit	3.26	15
20	Government policy	3.26	15
21	Lack of capital equipment	3.23	16
22	High number of unskilled employees in the company	3.19	17

23	Lack of professionals advisors & consultants in the construction industry	3.07	18
24	Bank Policy	2.93	19
25	No cooperative from the material suppliers	2.77	20

5.2 Correlation Analysis

The spearman correlation coefficient was computed to assess the relationship between the problems faced by small scale contractors in India. There was a moderate positive correlation between the two variables delayed payments by clients and bad debts (outstanding payments that cannot be collected) with a value of 0.525. Overall, increases in the delayed payments by clients were correlated with increases in bad debts.

6. CONCLUSIONS

This study represents the survey carried out among small scale construction companies in India. The major problems faced by small scale construction contractors have been investigated through survey among the top-level managers and the owners of the firms. Based on the result, Delayed payments by clients with rating 4.16, fluctuation in material cost with rating 4.05, owners involvement in construction phase with rating 3.91, cash flow management with rating 3.86 and increased competition in the construction field with rating 3.84 was perceived to be the top 5 major problems faced by small scale construction contractors in India.

REFERENCES

- [1] Nawadi and Dungalazona, "An exploratory study into the challenges facing the emerging contractors in the construction of low cost housing in Nelson Mandela Metropole, South Africa," *Published in xxxiii IAHS*, Sept 2005.
- [2] Gadekar and Pimplikar, "Success and Failure factors of Indian Construction Companies," *Published in the International Journal of Engineering and Science*, Vol 3(6), pp 52-58, May 2014.
- [3] Arslan and Kivrek, "Critical Factors to Company Success in the Construction Industry," *Published on International Journal of social, Management, Economics and Business Engineering*, Vol 2(9), 2008.
- [4] Thwala and Mvubu, "Current Challenges and Problems facing small and medium size contractors in Swaziland," *Published in African Journal of Business Management*, Vol 2(5), pp 93-98, May 2008.
- [5] Thwala, "An exploratory study of Problems facing emerging Contractors in the North west province of South Africa," *Published in African Journal of Business management*, May 2009.
- [6] Gadekar and Pimplikar, "Factors leading to Success of Indian Construction Companies," *Published on Journal of Mechanical and Civil Engineering*, Vol 10(1), pp 52-54, 2013.
- [7] <http://www.kenpro.org/tag/sample-size-formula-for-infinite-population/> [accessed on 22-02-2015].
- [8] <http://www.CIDC.in/new/support/overview/2012-2017/introduction/> [accessed on 07-03-2015].