Workmanships Problem to Construction Occupation for SMEs: A Case of Tepi Town

ASSEFA TEKLA BEDADA

Lecture of Construction Technology and Management Department,
College of Engineering, Assosa University, Ethiopia

Abstract:

In Ethiopia,Small and Medium Enterprises (SMEs) are the great bulk of the construction industryand it has been applying since 2005. This, the paper attempts to assess the problems of workmanships to construction occupation on SMEs in Tepi Town construction projects. The data are required for this study were collected through the 20 well self-determination questionnaire and distributed to Engineers and Enterprise leader Coordinator that have experienced in the Tepi Town construction project.The statistical methods of mean descriptive were used to analyze the collected data through questionnaires. Relies on results, the main effects variables were ranked according to their occurrence. The materials and equipment supply, human resource capability, construction process, and construction occupation participants are identified as most top five problems of workmanships to construction occupation for SMEs likewise, effective communication, teamwork effectiveness, strong qualified supervision, continuous evaluation before and during the implementation of work, effective planning and scheduling, commitment to safety (strict laws)are identified as the main problemof workmanships that is looked-for minimize the existing difficulties on construction occupation for SMEs in Tepi Town. Finally, results, it is important to minimize the negative problems of workmanships toward the construction occupation of SMEs in Tepi Town.

Keywords:construction occupation, Construction project, Construction Industry, Small and medium

construction enterprise

I.   INTRODUCTION

Construction industries play an important role in the social, economic & political development of a country. Construction is not only one of the major sectors of an economy, but it is also the largest and accounts from 12% to 25% of the GNP of both developed and developing countries[1]. This is implying that consumes a higher percentage of the annual budget of a country. Absolutely, in Ethiopia, it covers 58% of the annual budget[2]. Small and Medium Enterprises (SMEs) make up the great bulk of the construction industry and effectively allocating modernizations to their larger counterparts [3]. The actual workmanships problem of building occupation in a very competitive economy or a perceived lack of dedication to new ideas, the Small and Medium Enterprise (SME) sector carries great hopes and great burdens in the evolution of all of the transitional economies. Sustained and healthy growth of this sector is necessary since it is difficult to visualize increasing overall living standards and social peace.Among the most effective problem of workmanships to the occupation of small and medium-sized construction, enterprises are inborn flexibility. Despite this ability to respond to particular circumstances quickly, rather than risk adopting new practices [4]. The face a variety of constraints owing to the difficulty of the SMEs has impacted the most such as lack of awareness and knowledge of e-commerce, Family business

background**,** Accounting skill**,** Resource management skill absorbing fixed costs, the absence of economies of scale and scope in key factors of production, high unit costs, poor cash flow [5].This research was focused on the assessment of workmanships problems that are impacted on the construction occupation of Small and Medium construction Enterprise will be analyzed and achieving the best practice to overcoming the problem

II. LITERATURE REVIEW

Construction is the broad process/mechanism for the realizations of human settlement and the creations of infrastructure that supports development. This includes the mining and beneficiation of raw materials, the manufacturing of construction materials and components, the construction project cycle from feasibility to deconstruction, and the management and operation of the built economy of one country, but after the global financial crisis 2008-2009, the SMEs is interest or les in-job creation and economic growth [6]. Industrialization is evolving changes and seeking more integration, modernization, and simply better schemes for providing public services and products. Several small and medium enterprises (SMEs firms do not have an organizational structure, as large firms[7]. Small and medium firms usually employ personnel to perform multiple tasks that are larger firms to tend to use specialists to perform the same activities. This structural feature of small and medium businesses arises because of their size and source cable [8].The competition between small and medium-sized construction enterprises (SMEs) and large enterprises is expected, so small and medium-sized construction enterprises need to find better ways to improve their ability to compete [9].

Construction offers several opportunities to SMEs, as revealed by the large numbers of such companies in each country, giving the industry a typically pyramidic structure[10]. In Ethiopia, there is a greater understanding of the industry and increasing maturity in policy development in which ran from 2025 program. There is also better awareness of the nature and needs of construction SMEs. This has led to the development of more appropriate and better-focused policies, programmers' and initiatives for SME development, including training programmers. There is a need for the SME entrepreneur to be more aware and able to inspire their employees, clients, and partners to attain greater joint performance[11]. They should also be strategic in orientation, better able to deal with risk and uncertainty, and adept at participating in alliances and partnerships. In short, the SME entrepreneur, especially today, must be a leader as well as an innovator [12]. Thus, SMEs' have a significant contribution to the economy. As a result, the construction industry has been known for its substantial role in creating employment while contributing to economic growth, especially in developing countries like Ethiopia. This points that has been a steadily growing recognition that the contribution of the construction industry is attributed to small and medium construction enterprise, these enterprises perform a greater amount of construction work which somehow generate employment opportunities and lead to economic growth, Small and medium construction enterprise often tends to emerge through sub-contracting on large construction projects, given their specialist nature of services. The literature review is not covering the concept of workmanships problems related to construction occupation in small and medium-sized construction enterprises.

III. METHODS
3.1 ORGANIZING DATA
The methods followed to prepare data for this research is the descriptive method. Firstly, the study was reviewed written documents concerning this research topic and organizing the existing variables which are very helpful in studying the research. Thus, to perform thissample of Enterprise leaders and Civil

engineers were selected from the existing population of enterprises of the Tepi Town. The sampling mechanism is a random sampling technique.

The following figure demonstrates the procedure implemented in the research methods.
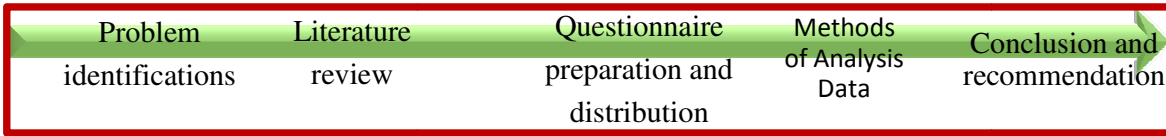

FIGURE 1: IDEALIZED PROCEDURE FOR THE RESEARCH METHODOLOGY

3.2 DATA ANALYSIS

In the data collected through a questionnaire survey and case study, mean weight descriptive statistics were used. Since it is interesting to interpret the variables accurately and easily and to rank the variable of workmanships problem to construction occupation for a small and medium enterprise of the construction project in Tepi Town, to determines, the weightedmean for a realistic average of each variable, a Scale of five ordinal measures of agreement (1, 2, 3, 4, and 5) was used to rank the major problems. The following formula is designed by calculated mean weighted.

✓ **Weightedmean for a realistic average:** The weighted mean can be worked out as follows.

$$Xw = \frac{\sum wi \, xi}{\sum wi} \text{…………….....................................} (3.1)$$

Where Xw = Weighted item

wi= weight of ith item X

Xi = value of the ith item

If the mean weights of the result of the analysis of the questionnaires are: -

$$Width = \frac{high \; mean \; weight - low \; mean \; weight}{high, size \; of \; weight \; (1,2,3,4,5)} \text{……………………………………….} (3.2)$$

Range = high mean weight –width ………………………………………… (3.3)

Depend on the specific objective of one of the studies:

For example: $width = \frac{3.31 - 2.44}{5} = 0.174$

Range (R) = high mean weight- width

$R= (3.31-0.174) = 3.14$

Percentages: This descriptive statistics method was also used to analyze the general questions related to the problem workmanships for construction occupations in Small and medium-sized construction enterprises in Tepi Town, include in the questionnaires.

4. RESULTS AND DISCUSSIONS

4.1 Types of organizational response

The respondent's profile includes in organization experience on construction sector and jobs

TABLE 1: SUMMARY OF SURVEY RESPONSE

Respondents	Questionnaires Distributed		Questionnaires duly completed and returned		Response rate
	No.	Percent (%)	No.	Percent (%)	Percent (%)
Enterprise leaders	4	20	4	25	100

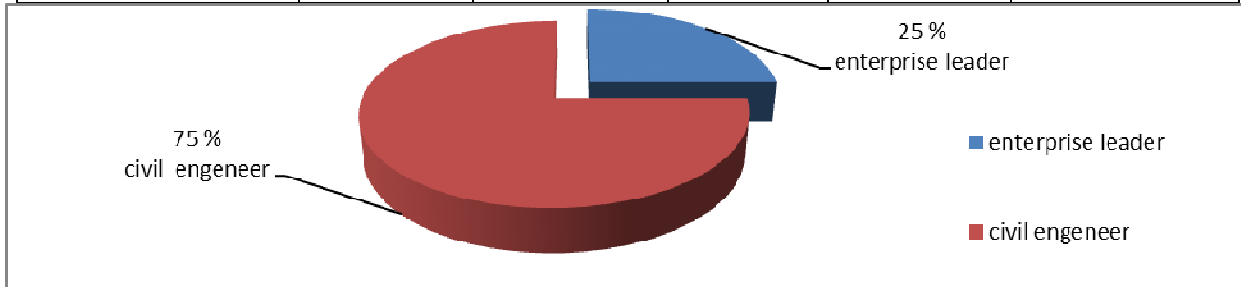| Civil engineers	16	80	12	75	75
Total/Average	20	100	16	100	80

FIGURE 1: TYPE OF RESPONDENT'S ORGANIZATION

The overall response rate in the survey was 4(100%) for enterprise leaders and 12(75%) for civil engineers, figure 4.1, showing that among 20 questionnaire respondent's 4(25%) for Enterprise leaders and 12(75%) for civil engineers are respectively. The mean weights of the result and rank of workmanships problems to construction occupation on small and medium-sized construction enterprise.

TABLE 2: SUMMARY OF WORKMANSHIPS PROBLEMS TO CONSTRUCTION OCCUPATION THAT THE SUCCESS OF SMES

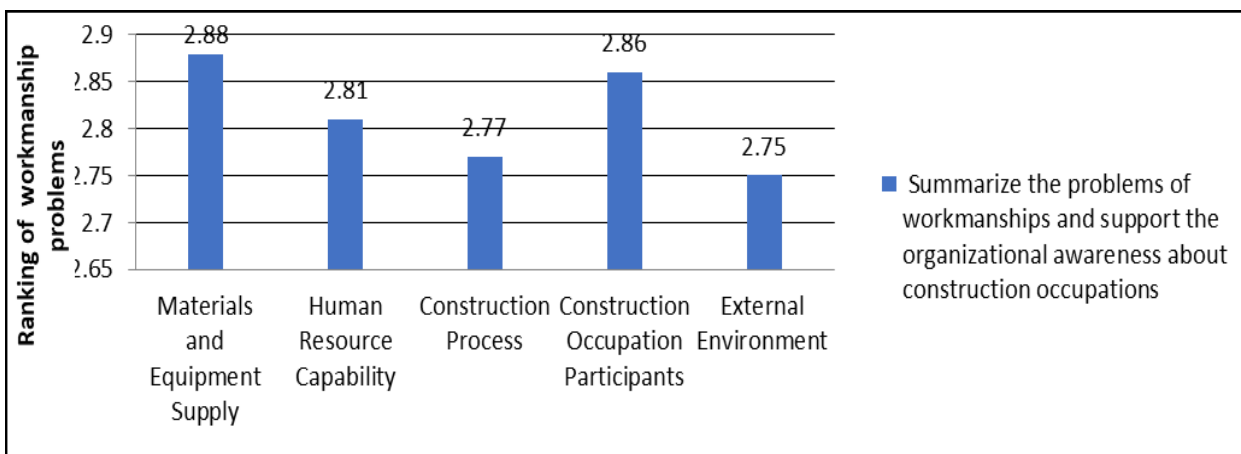| Serial No	Categories of the problems	Average Mean	Rank
1.	Materials and Equipment Supply	2.88	1
2.	Human Resource Capability	2.81	3
3.	Construction Process	2.77	4
4.	Construction Occupation Participants	2.86	2
5.	External Environment	2.75	5

FIGURE2: SUMMARIES THE MOST TOP PROBLEMS OF WORKMANSHIPS RELATED TO CONSTRUCTION OCCUPATION

From a list of 33 variables of workmanships, the problem was divided and selected between five main categories based on the views of respondents thus, determine their degree of factors of occurrence on workmanships problem towards construction occupation in SMEs

2.43~2.59, low problem, 2.60~2.77 low problem, 2.78~2.95 medium problem, 2.96~3.13 high, problem, and 3.14~3.31 very, high problem, hence: R= (3.14-3.31) very high, problems Occurred

The result obtained from the questionnaire analysis shows that the raw materials and equipment supply was very high problems for SMEs, and it has been ranked first with the average mean weight of 2.88. Involving construction occupation participants was a second-ranked problem with the mean weights of 2.86. According to researcher have pointed out, one of the challenging problems of SMEs development in Ethiopia is raw Materials and Equipment Supply[13].Accordingly, to the respondent's place based on average mean weights of among five categories related to the workmanship'sproblems of construction occupation in Tepi Town was found to human resource capability, construction process and external environment have positive effects on the success of SMEs.

4.2 MEASURE TO MINIMIZE THE EXISTING PROBLEMS

TABLE.3: MEASURE TO MINIMIZE THE EXISTING PROBLEMS

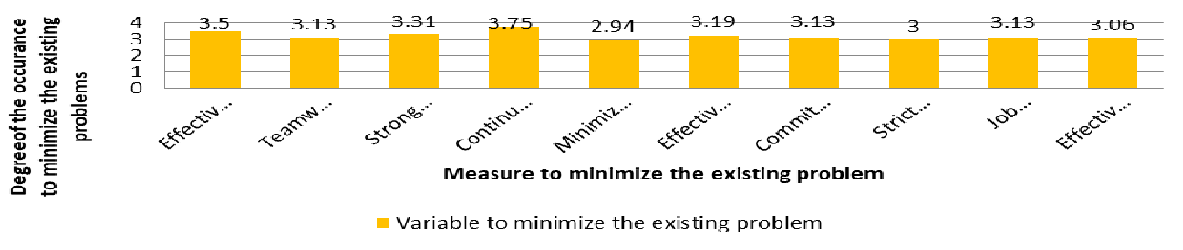| Serial No	Measure to minimize the existing problems	5	4	3	2	1	Total Responded	Mean	Rank
1.	Effective Communication	3	6	3	4		16	3.5	2
2.	Teamwork effectiveness		8	3	4	1	16	3.13	5
3.	Strong qualified supervision	2	4	7	3		16	3.31	3
4.	Continuous evaluation before and during the implementation of work	3	9	2	1	1	16	3.75	1
5.	Minimization work stress	3	4	7	5		16	2.94	8
6.	Effective planning and scheduling	1	6	7	3		16	3.19	4
7.	Commitment to safety (Strict laws)	1	6	7	2	1	16	3.13	5
8.	Strict resistance against cheating (fraud-fighting)	2	3	5	5	1	16	3.00	7
9.	Job security	1	6	4	4	1	16	3.13	5
10.	Effective management	1	4	7	3	1	16	3.06	6

FIGURE 3: MEASURES TO MINIMIZE THE EXISTING PROBLEMS

The result indicated that Continuous evaluation before and during work is a very high extent to minimize the problems of workmanships for the construction occupation;it was ranked as the first measure, with a mean weight of 3.75. This indicated that when applying continuous evaluation before and during work, the variation from specification was a minimum, consequently, leads to being maximum construction occupation in Tepi Town. Respondents gave Effective Communication a mean weight of 3.5, where it was ranked as the second measure, whereas poor leadership, and communication, and ineffective decision-making are the foremostchallenges of workmanships in their profession, result identified that effective leadership and communications were effective techniques to minimize the problem of workmanships and improve performance in construction occupation in Tepi town for SMEs.

Again, the surveyed respondents indicated that Strong qualified supervisionis a high extent measure to minimize the problems of workmanships; it has been ranked the third measure with mean weights 3.31. According to researchers have remarked that those existing problems challenge workmanships' performance of construction occupation, and it can be the most important indicator to measure the contribution of workmanships problem to construction occupation in SMEs[3].Thus, the result specified that inexperienced supervisors and lacks of skilled laborers are the major problems of workmanships. Hence, experienced and well-trained supervisors have an important role in minimizing the amount of the problems of workmanships due to construction occupation

IV.   CONCLUSION

According to the results, obtained from the analysis of the questionnaire, the ranks of workmanships problems to construction occupation for SMEs were evaluated based on the average mean weight of five categories. Materials and equipment supplywere the first ranked and a major top problem of workmanships to construction occupation for SMEs inTepi town with an average means weight of2.88. Workmanships problem related to construction occupation participants for construction occupation in Tepi town was the second-ranked with the average mean weight of 2.86. Furthermore, measure to avoid the existing problems of workmanships that impacted construction occupation likewise effective communication, teamwork effectiveness, strong qualified supervision, continuous evaluation before and during the implementation of work, effective planning and scheduling, commitment to safety (strict laws are making the competition in the industry.

REFERENCES

[1] A. Economics and V. Xxi, 'The role of small and medium enterprises in improving employment and in the post-crisis resumption of economic growth in Romania', *Theoretical and Applied Economics*, vol. XXI, no. 1, pp. 87–102, 2014.

[2] Asnakeke Mamo, 'Assessment on the Impact of Micro and Small Enterprises on 40 / 60 Condominium House Construction Projects Master of Science Addis Ababa Science and Technology', 2019.

[3] A. A. Kurochkina, O. V. Voronkova, O. V. Lukina, and T. V. Bikezina, 'Management features of small and medium-sized business enterprises', *Espacios*, vol. 40, no. 34, 2019.

[4] J. Ackah and S. Vuvor, 'The Challenges faced by Small & Medium Enterprises (SMEs) in Obtaining Credit in Ghana', *Journal of Small Business Management*, vol. 38, no. 3, pp. 53–66, 2010.

[5] Z. Kaira and J. Rześny-Cieplińska, 'Innovation strategies in SME's economic growth and job creation in economy', *WSB Journal of Business and Finance*, vol. 53, no. 1, pp. 167–173, 2019, doi: 10.2478/wsbjbf-2019-0016.

[6] O. Ardic, N. Mylenko, and V. Saltane, 'Small and Medium Enterprises: A Cross-Country Analysis with a New Data Set', *World Bank Policy Research Working Paper*, no. 5538, 2011.

[7] European Development Bank, 'Document of the european bank for reconstruction and development, Strategy for Armenia', 2012.

[8] S. C. Trindade, 'Small and Medium Enterprises', *Small and Medium Enterprises*, 1991, doi: 10.3362/9781780445861.

[9] J. Grandgirard, D. Poinsot, L. Krespi, J. P. Nénon, and A. M. Cortesero, 'Costs of secondary parasitism in the facultative hyperparasitoid Pachycrepoideus dubius: Does host size matter?', *Entomologia Experimentalis et Applicata*, vol. 103, no. 3, pp. 239–248, 2002, doi: 10.1023/A.

[10] C. Reeg, *Discussion Paper Micro, Small and Medium Enterprise Upgrading in Low-and Middle-Income Countries A Literature Review*. 2013.

[11] International Labour Office, *Small and medium-sized enterprises and decent and productive employment creation*. 2015.

[12] V. Bayramov, R. Hasanov, L. Aghayarli, Z. Kadyrov, I. Aghahasanli, and S. Isayev, 'A Comparative Study on Development of Small and Medium Enterprises (SMEs) in Azerbaijan', *SSRN Electronic Journal*, no. 99412, 2019, doi: 10.2139/ssrn.3485576.

[13] Swiss Agency for Development and Cooperation, 'Urban and Peri- Urban Development Dynamics in Ethiopia Study', in *Urban and Peri- Urban Development Dynamics in Ethiopia Study*, 2017, no. May, p. 51.