

SURVIVAL CHALLENGES FACED BY THE SMALL-SCALE BUILDING CONTRACTORS IN SRI LANKA

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ABSTRACT

The construction industry is a significant contributor to the socio-economic development of Sri Lanka, and small-scale contractors play a crucial role in this industry. However, their sustainability is a matter of concern. The vital contribution made by small-scale contractors in generating job opportunities and reducing poverty has been recognised in Sri Lanka and globally. The research study examines the significant challenges C7-C9 grade contractors face in surviving in the Sri Lankan construction industry. The study utilised a mixed-method approach. Stage one consists of, administering a questionnaire survey, distributed among C7 to C9 contractors and stage two consists of conducting a series of semi-structured interviews among five industry experts. The initial groundwork involved an extensive review of the existing literature, complemented by acquiring primary data. During the first stage, the study continued using thirty responses and to analyse the collected data, descriptive statistical tools such as percentage counts, weighted averages, etc used through a 5-point Likert Scale analysis. Among the key challenges that emerged, financial policies stand as a critical issue with higher governance. Semi-structured interviews were analysed using code-based content analysis. Among the solutions proposed, improving skills and efficiencies was a highly proposed solution to facing these challenges. This study will be useful for many struggling C7-C9 contractors in Sri Lanka to identify their least-performing areas in the trade and to improve their overall performance while nurturing the construction industry.

Keywords: *Building Construction Projects; Small-Scale Contractors; Survival Challenges.*

1. INTRODUCTION

The construction sector is a noteworthy contributor to the Sri Lankan economy (Manoharan et al., 2023; Pathirana, 2021; Somachandra et al., 2024). However, recent data reveals a significant decline in its contribution to the national Gross Domestic Product (GDP) (Jui et al., 2024). One of the main reasons for this diminished contribution is the dwindling presence of small-scale contractors within the industry (Liyangamage & Fernando, 2023; Ramawickrama, 2016). The construction sector relies on contractors

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to translate the design into a tangible built environment (Shan et al., 2020). In both developing and developed countries, the construction industry consists of small, medium and micro-sized enterprises (Chileshe, 2020; Liyanagamage & Fernando, 2023). A study conducted on critical success factors of Singaporean contractors by Shan et al. (2020) revealed that the majority of the contractors in the world are small contractors. They further highlighted that the majority of 99.8% of the small contractor population in the UK construction industry in the USA, 97% of speciality specialised contractors and 96% of home builders represent small contractors. Small-scale contractors are crucial in construction (Chileshe et al., 2020). These small-scale contractors significantly boost the economy and construction sector by creating job opportunities, aiding in poverty reduction and boosting the sector's growth. They also contribute to social development and economic advancement and lead to a country's economic growth (Amoah & Bikitsha, 2022). Even though a noticeable number of small firms exist in the construction sector, due to the competitiveness and toughness of the construction industry, today, these firms struggle a lot for their survival (Liyanagamage & Fernando, 2023). Regardless of their high capability to adapt to innovation (Jayalath, 2023), they experience significant restrictions in resources such as labour, capital and many more aspects compared with large-scale contractors (Liyanagamage & Fernando, 2023; Shan et al., 2020; Somachandra et al., 2024). This fact is further proven by a South African construction industry case study, which revealed that emergent contractors face financial issues due to delays in payments, poor management, lack of basic skills, contract negotiation, lack of finances, specialised activities, assets, poor procurement, business skills, failure to retain skilled workforce, and inadequate finance (Amoah & Bikitsha, 2022). Similarly, Shan et al. (2020) found that lack of continuation of jobs, pressure of the same level competitors from the same trade, different expectations of shareholders, high pressure on professionalism and integrity, poor level of technology, absence of skilled workers, and poor access to the international market as critical challenges experienced by the small-scale contractors. Another study conducted on the Jordanian Construction industry revealed the absence of expertise, resources (Amoah & Bikitsha, 2022) and managerial support to manage participant affairs as a common challenge for SMEs of developing countries (Alkilani & Loosemore, 2022), whilst inadequate financial management, availability of knowledge and investment, and insufficient skills are reported as the most challenging factors for Tanzanian Small-scale contractors (Chileshe et al., 2020). Corroborating these challenges (Shan et al., 2020) indicated that Singaporean small-scale contractors still depend on traditional construction methods, which hinders the possibility of enhancing their capacity.

Similar to the Singaporean, United Kingdom (UK), and United States of America (USA) construction industries, in the Sri Lankan construction sector, the majority of the population represents small and medium-scale contractors (Dodanwala & Santoso, 2024). They range from C4 to C9, according to the CIDA grading system. A study by Ranadewa et al. (2018) revealed that compared to the strengths and opportunities available for Small and Medium-scale (SME) contractors, the weaknesses and threats show a significant presence in the Sri Lankan construction industry. They further revealed that the Sri Lankan construction industry is plagued with challenges in access to finance, interest rates, global finance crisis, and cost of energy standards to every contractor regardless of their grade. However, the higher cost of construction, labour, material, equipment, availability of funds offered by the government and its competitiveness, availability of quality equipment, material and skilled workers, and investment in new

technology precisely hit the small and medium scale contractors in the local context threatening their existence (Ranadewa et al., 2018). Due to these challenges, many of these firms disappear during their first couple of years without exhibiting any progress in development or even the skill to survive (De Silva et al., 2022). However, these challenges can manifest each grade of small-sized contractor differently, depending on their financial strength, demographic conditions, and capability to handle such challenges within the business environment. Nevertheless, it demonstrates that a substantial number of small-scale contractors experience critical challenges in the Sri Lankan construction industry, and those challenges need more attention and in-depth investigation (Dodanwala & Santoso, 2024). Though there are attempts to recognise the challenges faced by small-scale contractors, no such record explores the challenges faced specifically by C7-C9 small-scale contractors in the Sri Lankan Context. Therefore, this research aims to fill that gap and identify the challenges faced by the C7-C9 small-scale contractors in the Sri Lankan construction industry.

2. LITERATURE REVIEW

2.1 CONSTRUCTION INDUSTRY

The construction industry is vital in preserving the country's social and economic advancement (Jayalath, 2023; Omopariola et al., 2020). It brings more financial value to the government, securing and creating employment opportunities (Pathirana, 2021). Similar to other countries, The Sri Lankan construction industry also plays a significant role as a contributor to the Sri Lankan economy (Fernando et al., 2016; Liyanagamage & Fernando, 2023; Pathirana, 2021). However, recent studies indicate that the Sri Lankan construction industry is in a constant struggle with a notable surge in costs over the past few years due to political chaos and the economic catastrophe in the country; competition comes from overseas contestants, health and safety standards (Pathirana, 2021). The situation has significantly impacted Sri Lankan contractors, leading to increased survival struggles and disrupting the industry's growth despite being an essential national economy sector (Jayalath, 2023). Understanding this, many scholars worldwide made attempts to identify industry barriers to persistence and advancement, focusing on challenges faced by different contractors, including large-scale, small, medium, and micro-scale, contributing to the development and improvement of the construction industry (Amoah & Bikitsha, 2022).

2.2 SMALL-SCALE CONTRACTORS

According to the literature, different trades and countries use different perceptions when defining small-scale contractors (Shan et al., 2020). Therefore, still, there is no universal definition for the term "small-scale" contractors. However, with the changing economy, from time to time, scholars come up with different arguments for defining small-scale firms (Shan et al., 2020). One of the main arguments scholars presented is that, in determining the term, with the rapidly changing economy across industries, it cannot rely on single measures such as employment or resources, revenue or output, etc. (Ranadewa et al., 2018). By referring to Bolton (1971), Ranadewa et al. (2018) advocated that the definition of a small firm must depend only on the firm's market share, management style, and owners' independence in decision-making. Even though the worldwide construction industry consists of a high portion of small-scale contractors, according to the growing body of knowledge, the definition of small-scale contractors portrays a high dependence

on national and industrial considerations (Shan et al., 2020). Regardless of this economic definition, most countries today rely on quantitative parameters to define small- and medium-scale enterprises (Ranadewa et al., 2018). Accordingly, different countries use different parameters and grading systems to classify small-scale contractors (Liyanagamage & Fernando, 2023; Shan et al., 2020). While the USA consider organisations with an annual income level of small companies of USD 36.5 million, European countries consider parameters such as organisations with below 50 workers, sales below EUR 50 million, or annual resources and obligations less than EUR 43 million to define small scale contractors (Shan et al., 2020). Similarly, the Construction Industry Development Authority (CIDA) of Sri Lanka defines small-scale contractors as those with an annual turnover of 16 – 250 Mn, mainly graded under C9 – C4. The grading system ranges from CS2 to C9 based on financial terms. However, Ranadewa et al. (2018) indicated that micro-enterprises also fall under this category regarding policy-related measures. This grading system of CIDA aims to determine the contractor's comprehensive capability in carrying out numerous development activities with diverse forms and sizes regardless of the precise contract. Nevertheless, there is yet to be a universally accepted definition. The CIDA system determines a company's ability and capability to undertake various projects (Perera et al., 2023). Currently, more than 2500 registrations exist under CIDA. Among these, the small and medium-sized contractors appear under the C4-C9 categories. Within that, C7 -C9 indicates the lowest gradings according to the financial strength. These categories show the minimum financial strength as, C9-grade: minimum financial limit of 2 million, C8 grade: 2 million to 5 million and C7 grade: limit reaching from 5 million to 10 million. The CIDA grading system identifies the best contractor within the parameters of their financial and technical skills and instils confidence in the firm to make improvements while enhancing its capabilities. Ultimately, the business must meet project objectives, including deadlines and high-quality standards. Though they have deficient financial capacity, these small-scale contractors play an essential role worldwide in creating infrastructure regardless of demographic diversion (Jayalath, 2023; Liyanagamage & Fernando, 2023).

2.3 PROBLEMS AND CHALLENGES FACED BY SMALL-SCALE CONTRACTORS

The construction industry is a sector with critical problems (Jayalath, 2023; Jui et al., 2024) due to a range of internal and external factors that impact the corporate environment of the construction sector (Amoah & Bikitsha, 2022). A study by Rajakaruna et al. (2008) identified several factors that are crucial to any construction organisation or industry's success. These factors include state and monetary policies, research and development, administration skills, resource availability, safety requirements, training, technology, and social aspects. Previous research studies indicate that such problems cause unembellished concern about the economic status of countless nations (Jui et al., 2024; Somachandra et al., 2024). In developing countries like Sri Lanka, several issues are amassing together with the common difficulties that occur due to the country's economic turmoil, scarcity of possessions (Human and financial), poor management and investment matters in construction firms, and political constraints in the country are some of these issues that exist within the industry from a long time (Liyanagamage & Fernando, 2023). These problems cause severe complications, specifically with contractors, regardless of their scale (Jayalath, 2023). Commonly, small-scale contractors have inadequate monetary and capital strength, equipment, plant, low safety measures and limited resources (Liyanagamage & Fernando, 2023). Thus, these problems can hit small-scale contractors

even more challenging than other grades. According to Rajakaruna et al. (2008), Small-scale contractors primarily encounter technical and financial management challenges. They further showed that these challenges are often due to insufficient resources, inadequate management skills, and poor business planning strategies. Consequently, many small-scale construction contractors struggle to overcome these obstacles. The following paragraph describe these factors in more detail.

Financial Policies: A company's financial strength is an essential aspect that facilitates the smooth running of a company and the timely completion of projects. According to Rajakaruna et al. (2008), the main challenge that small-scale construction companies in Sri Lanka face is the unreasonable rates of commercial borrowings compared to those in developed countries.

Government Policies: Construction companies also need proper government policies and more support from governmental bodies. Scholars such as Thwala and Mvubu (2008) and Raghavan and Kumar (2015), indicated this in their studies on Swaziland and the Indian construction industry. By highlighting a similar situation in the Sri Lankan context, Rajakaruna et al., (2008) indicated the country's political instability as another reason for such pressure on small-scale contractors, which resulted in them losing their contracts due to changing governments and revised decisions.

Technology: Many of the mega projects in Sri Lanka on irrigation works, power plants, and industrial works claim the involvement of foreign parties due to a need for more technology from local contractors (Rajakaruna et al., 2008). However, progress can be seen in utilising technology in construction works, considering that small-scale contractors have yet to show any progress in utilising such technology (Rajakaruna et al., 2008).

Management Skills: Management skills are crucial factors that affect a construction company's well-being. According to (Jayawardane & Gunawardena, 1998), many small-scale companies must be more successful due to poor administration and coordination. By studying further, Rajakaruna et al. (2008) indicated areas such as cost planning, schedule planning, labour handling, scope management and administrative issues as the areas affected by poor handling.

Resource Availability: In many developing nations, construction companies often rely on a pool of contracted workers for specific projects. This approach may lead to a need for more skills and technical knowledge, ultimately contributing to failures in small-scale construction businesses (Rajakaruna et al., 2008).

Safety: According to Rajakaruna et al. (2008), most small-scale construction companies in Sri Lanka lack safety measures and precautions. Therefore, the construction workforce must understand and be made aware of the importance of maintaining these safety measures. On top of that, they reported that these companies do not possess the funds and assets for suitable safety measures, which counts as the main barrier faced by small-scale companies.

Training and Development: The workmanship of labourers is another major challenge construction companies have faced in recent years. According to Madushanka (2003), though different industrial training institutions are established in Sri Lanka, more is needed to fulfil the requirements of the construction sector. Therefore, many small-scale organisations today need more quality.

Skills: according to Gangwar and Goodrum (2005), Small-scale construction companies need more professionals and fresh graduates with low skills. They pointed out the inability to retain professionals with high skills by offering them an attractive remuneration package as the reason. They identified it as a common problem across developing countries.

Social Factors: Gangwar and Goodrum (2005) pointed out that labourers' social issues directly impact construction companies. Moreover, the authors revealed that most need more financial strength and good health. Due to their lack of education, they lack welfare facilities in these organisations, display poor behaviour and irresponsible manners, making labour management challenging (Gangwar & Goodrum, 2005).

In the local context, the construction industry's capacity experiences rapid changes due to the competitive nature of the emergence of many infra-structure public projects. These projects require the collaboration of foreign contractors (Rajakaruna et al., 2008).

2.4 MITIGATORY MEASURES

To overcome such challenges, scholars related to the construction industry recommended different mechanisms (Jayalath, 2023; Rajakaruna et al., 2008). Among these mechanisms, Rajakaruna et al. (2008) identified five mechanisms that can be applied to the Sri Lankan construction industry. They are: **enhancing skills and efficiency:** enhancing employee skills (Liyanagamage & Fernando, 2023) and fostering a culture of innovation is necessary to improve industry efficiency and image (Rajakaruna et al., 2008). International collaboration can facilitate knowledge transfer and technological advancement, ultimately enhancing the industry's global competitiveness, **adopting incentive awarding mechanisms:** introducing incentives (Shan et al., 2020) and enhancing performance in the construction industry such as financial rewards, training opportunities (Liyanagamage & Fernando, 2023), and recognition for health and safety adherence can drive positive change, **imposing quality practices:** enhancing construction quality requires improvements in workmanship (Shan et al., 2020), employee skills (Shan et al., 2020), and established quality standards, **improving professionalism:** enhance expertise through improved knowledge, practices, and relationships by incorporating professionalism into education at all levels, from the preliminary stage to professional practice, to foster a culture of excellence and **improve procurement strategies:** within the local construction context, despite of continuing the conventional methods, adopting alternative approaches like joint ventures and partnerships could uplift the industry to international standards, increasing its global competitiveness (Rajakaruna et al., 2008).

3. RESEARCH METHODOLOGY

In setting up the background information, the study utilised a comprehensive literature review concerning the survival challenges encountered by contractors in the global construction industry using journal articles, books, conference papers, etc.; then to explore the challenges faced specifically by the C7-C9 small-sized contractors in Sri Lanka, the study used a mixed method approach. Since the challenges faced by small-scale contractors can differ from region to region and country to country, a questionnaire survey was administered to contextualise the literature findings. Out of the 55 questionnaires distributed, only 30 complete responses were returned and proceeded to the analysis. To analyse the collected data, the study used Descriptive statistical tools such as weighted average, percentage counts, mean, etc., by introducing a 5-point Likert

Scale; according to Kusmaryono et al. (2022), 90% of research contains Likert Scales and is a recognised tool in measuring attitudes, concepts and values. The following Likert Scale was employed to identify the critical issues among C7-C9 Contractors in Sri Lanka, as shown in Table 1. It consists of a range where “not critical” = 1 and “very critical” = 5 and is based on two assumptions. They are, the distance between “very critical” and “critical” is the same as “not critical” and “less critical”. Thereby, the distance between “not critical” and “less critical” is five times less than the distance between “very critical” and “critical”.

Table 1: Likert scale for the level of criticality of challenges faced by small-scale contractors

Value	Range	Scale
1	1.00-1.08	Not critical
2	1.81-2.60	Less critical
3	2.61-3.40	Moderate
4	3.41-4.20	Critical
5	4.21-5.00	Very Critical

As of the second phase of data collection, semi-structured interviews with five industry experts were conducted to find solutions for the challenges faced by C7-C9 contractors. The data were analysed through code-based content analysis with the help of transcripts of each interview. Data analysis and discussion

3.1 QUANTITATIVE ANALYSIS

3.1.1 Demographic Information of Respondents

The gathered data highlighted a significant difference in experience levels between contractor grades. The majority of C7 (50%) and C8 (55.5%), possess 5-10 years of experience, indicating a more established group. C8 contractors also have a concentration in the 5-10 years, the most concerning trend is with C9 contractors. A staggering 76.9% have less than 5 years of experience, and none have more than 15 years. This suggests a workforce dominated by relatively new companies in the C9 grade, which may lack the experience of their larger counterparts.

3.1.2 Upgrade Status of the CIDA Grading

The gathered data reflects the failure of the majority of more than 92% of the C9 contractors to upgrade their CIDA grading. Yet the C8 and C7 contractors portray an upward trend of improvement. The results indicate that only the C9 contractors show a reluctance to upgrade themselves.

3.1.3 Issues of the Contractors

Financial Challenges: The analysis indicated that all three grades share the same view on changes related to the national economy, lack of bank support, and high interest rates. However, C9 are the most impacted grade by cashflow issues (25%) and the COVID-19 pandemic (7.7%) compared to C8 and C9.

Government Policy Changes: All three grades consider showing the slightest concern for Government tax policy compared to the other two issues. However, the impact of Tax

policy shows a reverse link with the grade. Over 44% of all grades consider Government instability a major issue while over 62.5% confirm that they lack Government support.

Technological Issues: The analysis revealed a significant gap in technological issues among all three grades except for the lack of software for teaching. However, among them, C9 is the most disadvantaged grade with the highest rates of challenges due to a lack of technological development, knowledge, and low IT usage. However, the C7 grade shows a substantially lower impact than the C8 grade on these three issues.

Management Skills Issues: The analysis revealed a trend of growing issues with the decrement of the size of the grade. While the C7 mainly faced poor cost planning and low administrative flexibility, they showed less impact with Documentation issues. However, C8 contractors struggle with all three problems, with 66.7% suffering from poor documentation, 55.6% and 33.3% facing poor cost planning and low administrative flexibility. C9 is the most deprived grade and shows the highest percentage.

Resource Availability Issues: The C7-C9 contractors face significant challenges due to resource availability issues. According to survey results, over 66% of respondents deal with high labour turnover (76.7%) and a lack of high technical construction equipment (66.7%). When broken down by company grade, high labour turnover has a more significant impact on all C7-C9 contractors compared to the lack of high technological construction equipment. These resource availability issues are mainly causing delays in work procedures, significant cost overruns and deviations from planned schedules.

Safety Issues: the analysis indicates that C9 is the most exposed grade to safety issues due to limited resources and knowledge. While every grade gets stressed with poor safety precautions and for its funding C9 does not portray problems due to the unresponsiveness of employees.

Training and Development Issues: Among the respondent contractors of C7-C9 grade companies 80% face limited funds for employee training and 50% face a lack of support from institutional organisations. However, compared to the lack of institutional support, all three grades indicated they need more funds for employee training. The statistical data gathered from the survey indicated that 80% of contractors from C7 to C9 grade companies reported facing limited funds for employee training. In comparison, 50% showed a lack of support from institutional organisations. The analysis by company grade revealed that small-scale contractors need financial stability to train new employees.

Skilled Professional Issues: The analysis indicated that a substantial portion of 60% struggle with a lack of skilled workers and the absence of skills development programs and 50% of the population confirmed they face difficulties availability of professionals. However, compared to C7 and C9, C8 reported the lowest percentage of finding skilled workers. The most vulnerable group of these grades is C9 in all three issues.

Social Issues: The most prevailing issue among all grades is the lack of on-site facilities (70%), while high environmental impact affected 66.7%, and the mentality of the labourers is the least affected, accounting for less than 7% of the respondent contractors. C9 is the most affected grade by social issues with over 90% experiencing a lack of on-site facilities and over 80% by environmental issues. However, C7 and C8 grades show a lower impact on social issues, averaging around 50%.

According to the data analysis, all the contractors under C7-C9 confirmed that all these five solutions to overcome challenges faced by small-scale contractors are significant.

Among them, the majority agreed that improving skills and efficiency, enhancing procurement strategies and introducing incentive awarding mechanisms are also critical. However, there is a dialogue on improving the quality procedures, and the participants responded by improving the outcome by enhancing professionalism throughout the hierarchy.

3.2 QUALITATIVE ANALYSIS

Under the qualitative analysis, the study employed semi-structured interviews with industry experts who possess experience between 5 to 30 years of experience. The interviewees represented the administrative levels. The respondents represented a Project Manager with over 30 years of experience, a Deputy General Manager with over 30 years of experience, two Civil engineers with over 35 and 8 years of experience and a Quantity Surveyor with over 8 years of experience. The majority of the interviewees possess high experience in the construction industry and therefore the insights provided by them is more realistic and comprehensive.

3.2.1 Interview Data

According to the data, the interviewees agreed that all five suggestions could be utilised to overcome the challenges of C7-C9 contractors. However, among them, improving skills and efficiency was identified as the main fact. Apart from that, enhancing quality practices, professionalism and procurement strategies were identified as crucial. The finding also proposed that improving skills and efficiency is substantial among other solutions as it minimises critical issues faced by C7-C9 small-scale contractors. Another recommendation is to adopt innovative construction methods to stand among the competitors and adopt new technologies to achieve efficiency. However, there is a dialogue on improving the quality procedures, and the participants responded by improving the outcome by enhancing professionalism throughout the hierarchy.

3.3 DISCUSSION

The study examined the challenges confronted by the contractors concerning nine critical issues identified through the literature review. These issues include financial policies, government policies, technological challenges, management skills, resource availability, safety concerns, training and development, skilled professional workforce, and social issues. According to the data analysis, around 40% of contractors in each grade are affected by all nine issues. It confirms the high level of criticality and sensitivity of all nine matters considered for each group of contractors. The results confirmed that changes in the national economy, lack of support from the banking sector, and high interest rates showed a considerable challenge on all three grades of contractors. The situation is same with the Nigerian and South African small-scale contractors as they suffer from lack of access to finance and high interest rate (Mafimidiwo & Iyagba, 2015). Considering government policy challenges, C9 confirmed a higher effect than the other two grades. However, every grade reported challenges related to policy issues. Moreover, over 50% of all grades reported a lack of technological development and knowledge, and over 76% needed proper IT usage, similar to the Ghanaian small-scale contractors (Asante et al., 2018). Appropriate management is crucial for a successful enterprise, but small-scale companies need more cost planning, better documentation, and administrative flexibility. Pathirana (2021) emphasises the importance of proper finance, line management, and administrative approaches for smooth processes and survival in a competitive business

landscape. The results revealed that all three grades suffer from resource availability and safety issues. However, C9 reported the highest impact. Similarly, Pathirana (2021) and Somachandra et al. (2024) claimed that facilitating the workforce with the latest safety measures can ensure more workforce. The study investigated the need for more support from institutional organisations and limited funds for employee training under the training and development issues. The results indicated that C9 is the group most highly impacted by the lack of training and development. However, compared to C9, C7 and C8 reported a more stable position.

Pathirana (2021) argued that facilitating training and development would enable the industry to complete international projects with the help of the local workforce, which creates recognition for contractors in the regional context and the global market. The skilled professional issues investigated are the availability of professionals, lack of qualified workers and lack of skill development programs. All three matters showed equal significance and effect over all three grades. These findings validate the argument that Pathirana (2021) made that private companies must facilitate and conduct training programs and workshops to educate their staff and keep them updated about the latest technology, processes, methods and knowledge. The study identified three social issues: lack of on-site facilities, high environmental impacts, and the mentality of the labourers. However, the mindset of the labourers indicates a considerably low impact as a social issue. However, the other two matters showed considerable significance over the mentality of labourers. Moreover, Pathirana (2021) recommended providing incentives, increasing job security, enhancing occupational health and safety, and adhering to labour laws will enable a country to retain the workforce. Similarly, Somachandra et al. (2024) recommended that providing training opportunities can enhance the skills and capabilities of the workforce. Among the solutions proposed by the experts to enhance the standards and quality of the construction, the highly recommended solution is to improve the efficiency and skills of the workforce. Similarly, Pathirana (2021) claimed that poor skills and inefficiency may lead to problems related to quality standards. However, proposing incentives can subdue such quality matters. Quality is an essential factor that small-scale contractors should concentrate on to survive in the industry.

4. CONCLUSIONS

Small-scale contractors are crucial in every construction industry, particularly in developing countries. Despite their significant contribution, small-scale contractors face numerous limitations over resources, such as human and mechanical access to finance, compared to other large-scale contractors. Regardless of these challenges, the growing body of knowledge indicates they are flexible in adapting to innovation. However, the literature does not provide an exact definition of small-scale contractors. Depending on the national and industrial considerations, the nature of the business and the rapidly changing economic conditions of different industries and countries define small-scale contractors on subjective and objective grounds. Countries like the USA, the UK, and Singapore and their construction-related governing bodies use their definitions with different grading systems. These industries use other parameters such as sales, annual income, number of employees, yearly resources, and obligations to define their grades for small-scale contractors.

Similarly, the CIDA, Sri Lanka, defined small-scale contractors using a grading system from C4 to C9. These small-scale contractors experience high insecurities due to various

issues they face. Accordingly, De Silva (2022) identified nine main issues small-scale contractors face within the Sri Lankan construction arena. These are financial policies, government policies, technological issues, management skill issues, resource availability issues, safety issues, training and development issues, skilled professional issues, and social issues. Each issue contains different perspectives depending on its grade and potential impact. As possible solutions for identified challenges of C7-C9 contractors of Sri Lanka, professionals highly recommended introducing an incentive awarding mechanism, improving competence and professionalism of the workforce, improvements in quality practices, and proper procurement arrangements to overcome and minimise such challenges. These findings may be helpful for C7-C9 small-scale contractors of Sri Lanka to identify their strengths and weaknesses by recognising their performance gaps and what mechanisms to overcome them. Improving their potential may help them to enhance their overall performance while contributing to the development of the Sri Lankan construction industry.

5. RECOMMENDATIONS

In Sri Lanka, there are over 2000 small-scale contractors registered under CIDA. Therefore, research findings, indicate the necessity of forming a regulatory body to attend to the promotion of lower-grade contractors to uplift the construction industry. Also, it necessitates the need to maintain the professionalism and quality of such contractors while concentrating on their competencies and efficiency. Since they can easily adopt innovation, these small-scale contractors must concentrate on innovation and accordingly enhance their competency level and try to compete in the industry.

6. FURTHER RESEARCH AREAS

The study only concentrates on the C7-C9 contractors engaged in building construction projects, the study can also extend to small-scale contractors in the Infrastructure and Industrial Construction Industry in Sri Lanka

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