

EFFECT OF COVID-19 ON THE SMALL-SCALE CONSTRUCTION COMPANIES: THE CASE OF COLOMBO DISTRICT, SRI LANKA

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ABSTRACT

COVID-19 is a global pandemic that has wreaked havoc on the lives of many individuals and has had a severe impact on the global economy. During this crisis, small and medium-scale businesses suffer the most and are the least prepared among all companies as per the previous studies done in other parts of the world. The majority of the small-scale construction firms in Sri Lanka act as subcontractors and generate job opportunities for a considerable number of people and are able to create a multiplier effect on the whole economy. However, it was observed that they are more vulnerable to the adverse impact of the pandemic. Thus, the principal goal of this research is to explore possible survival strategies to overcome critical financial issues of small-scale construction companies during the ongoing COVID-19 pandemic in Sri Lanka. A mixed-method approach was adopted to gather the data for the study. A comprehensive literature review was carried out to identify the impact of COVID-19 on both global and local construction industries. The data for this study was gathered using semi-structured interviews and a comprehensive questionnaire survey with small scale construction company owners and construction industry professionals. The findings highlighted the key financial issues faced by the small-scale construction companies due to the pandemic including delays in client payments, supply chain management issues, frequent price escalation of construction materials, and inability to repay loans. The respondents suggested creating partnerships with financially strong companies, reduction of unwanted expenses, modifying supply chain channels and agreements, and ensuring business continuity plans as the strategies to be used to overcome the financial burden that occurred due to the pandemic.

Keywords: *Construction Firms; COVID-19; Financial Issues; Small-scale Construction Companies; Strategies.*

1. INTRODUCTION

The impact of the COVID-19 pandemic on the construction industry is unprecedented (Fairlie, 2021). It extends over 216 nations and territories worldwide, causing the worst economic collapse since the great depression (Aladejebi, 2020). Many nations' economies were caught off guard by COVID-19, which wreaked havoc on a variety of industries, including construction. Even though many sectors have embraced online job execution, building projects cannot be completed online since employees must be present on-site to

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achieve productivity (Amoah, et al., 2021). In order to minimize the spread of this disease, several government restrictions and laws have been implemented, which unfortunately has a negative influence on the construction sector. Interruption of the supply chain and resources, project quarantine because of positive cases of COVID-19, project delays, and terminations are only a few of the consequences (Hansen, et al., 2021). Construction projects all over the world are expected to be delayed or cancelled due to this unexpected pandemic. Shortened construction operations and late clearances by associated agencies are affecting project time frames. Further, the project's functioning has been hampered by a lack of trained labourers and materials, as well as logistical problems (Zamani, et al., 2021). The study further pointed out that the global economic crisis is producing higher inflation, with long-term consequences. Although the outbreak's economic impact is still being felt and is becoming increasingly unpredictable, it is evident that the situation in developing economies will deteriorate before improving. In a recent analysis, the World Bank forecasted that South Asia's economy will experience its worst performance in 40 years, with half of the countries entering a serious recession (Shafi, et al., 2020).

The Sri Lankan construction industry comprises few large contractors and a number of small and medium scale contractors. As per the local industry landscape, large-scale construction companies could survive in a pandemic without much disturbance, while small-scale players face deadly circumstances for their survival. They encounter challenging situations and the majority of them will face the risk of bankruptcy, as this has a direct impact on the business revenue. The pandemic situation compelled many small-scale construction companies to abandon or temporarily shut down their ongoing construction projects. Funding new projects is the challenge faced by many clients, which has an impact on their budgets, while contractors were not compensated for their work done. This is aggravated since contractors are required to compensate their permanent staff, despite many financial challenges. Further, the construction sites have to be properly managed according to certain health and safety procedures approved by the government. This involves unexpected cost, which was never foreseen by those small-scale construction companies. Due to the above-mentioned reasons, the majority of small-scale construction companies are facing financial difficulties, especially in managing their cash flow. Even reopening construction projects after temporary closure will be a difficult decision for those companies. These companies have to adapt to new procedures and pre-plan to face a pandemic situation without getting bankrupt.

Therefore, this study aimed to identify appropriate strategies to overcome the financial problems that emerged due to COVID-19 on the small-scale construction companies in Colombo district, Sri Lanka. In order to fulfil the aim of the study, a few research objectives were developed such as exploring the impact of the COVID-19 pandemic situation on the Sri Lankan Construction industry with special emphasis on small scale construction companies in the Colombo District, to identify the cash flow problems that arise in small scale construction companies in the Colombo district due to the pandemic, to identify and critically analyse the strategies used by those companies to overcome above problems and to propose appropriate strategies to be followed by small scale construction companies to overcome challenges posed by a pandemic situation in future.

2. LITERATURE REVIEW

One of the main engines of the national economy in Sri Lanka is the construction industry (Kawmudi, et al., 2021). In 2021, GDP from construction climbed to LKR 1,147,487

million, up from LKR 1,015,706 million which is the annual GDP from construction of year 2020 (Department of Census and Statistics - Ministry of Finance in Sri Lanka, 2021). According to Pathirana (2021), the majority of existing projects have been suspended or postponed, while local clients and contractors are operating their companies with insufficient financial reserves, putting them in a difficult position and exposing their market shares to rivals. Author further pointed out that the substantial depreciation of the local currency against the US dollar signalled the economic impact of the pandemic on Sri Lanka. This has negatively affected the industry as it has added an extra cost to the stakeholders to bear with. Contractors, material suppliers, and clients play important roles in the industry, and the current situation has forced all three parties to deal with issues such as completing projects on time, expecting supplies on time at the right price, and, most importantly, ensuring that the final product or finished project meets set goals (Pathirana, 2020). The construction industry has traditionally had lengthy payment waiting lines, which will be further aggravated due to economic instability, and the COVID-19 crisis will be a reason for this (Kawmudi, et al., 2021). Furthermore, as a result of the pandemic's dangers, the sector faces extra risks such as losses, bankruptcy, damage to existing materials, payment to workers who are unable to work, rental costs for office buildings and rented plants and machinery, and the potential of claims and payment delays by clients (Vithana, et al., 2020).

The industry classification of construction companies spans from large-scale, medium scale to small-scale. During the crisis, small and medium-sized businesses suffer the most and are the least prepared of all companies (Aladejebi, 2020). The importance of small and medium-sized enterprises (SMEs) in any country's economy cannot be understated, in terms of the number of industry players, as a share of the total market, and their inward and outward linkages with the rest of the economy. SMEs are critical for the success of the local economy, particularly in terms of employment creation, economic growth, and poverty reduction (Aladejebi, 2020). This is not an exception in Sri Lanka, and there are more than 188,877 construction workers in the Colombo area, and 90% of the work has been temporarily halted because of the pandemic (Pathirana, 2020). However, owing to the COVID - 19 crisis, all the projects were halted, and the majority of the employees were trapped inside Colombo. Due to the limited crossing over between districts, most construction companies had trouble retaining their employees. Contractors had a difficult time paying wages and meeting basic requirements (Pathirana, 2020). Although there is high uncertainty over whether these companies' shutdowns will be permanent or otherwise, each month of inactivity has an impact on these firms' revenue, income, and workers (Fairlie, 2021). Project suspensions, rising unemployment, shortage of manpower, time overruns, funding issues, financial losses, supply and material scarcity, legal problems, and work schedule disruptions are among the issues identified by Gamil and Alhagar (2020) in their study on the impact of COVID-19 on the construction industry.

3. METHODOLOGY

In order to achieve the research objectives, a mixed-method approach was utilized as the research technique, comprising both qualitative and quantitative approaches. Since the novelty of the research problem warrants a thorough investigation, the goal is to perform a detailed exploration of the phenomenon under the study. The COVID-19 pandemic is a relatively new occurrence in the world, hence studying how this current phenomenon

impacts small-scale contractors in the local construction industry, is a worthy exercise. A mixed-method study is best suited for achieving the study goals.

Since it is challenging for the researcher to reach the whole population, sampling is used to choose predefined participants from a bigger network. As for the sampling method, a purposive sampling method is used. According to Kumar (2011), the most important factor to consider in purposive sampling is judging who can give the most information to help reach the study's goals. In order to achieve this, 30 small-scale construction firms which have an annual turnover of less than LKR 10 million, were chosen from the Colombo district using the Construction Industry Development Authority (CIDA) grading system. The study sample represents owners of 30 small scale contractor companies for semi structured interviews, and 34 number of construction professionals were selected from key professional categories namely Engineers, Project Managers and Quantity Surveyors from the small-scale construction companies as participants for the questionnaire survey. The criteria for selecting participants for the study were based on research findings by Fei and Khan, (2015) who listed the following qualities and tangible criteria for experts:

1. Age should be 19-60 years.
2. A minimum of 1-year experience and participation in the construction industry is needed.

Based on that scenario, participants were selected above the age of 19 years and with more than 1 year of experience in the construction industry.

Semi-structured interviews and questionnaire surveys were utilized as data collecting tools for this study. The questionnaire contained both open-ended and closed-ended questions. The data gathered were analysed through thematic analysis and statistical analysis methods. Conducting face-to-face interviews was not practical during the pandemic, hence the interviews were planned to be conducted through phone calls and emails.

Statistical techniques were used to analyse quantitative data. Since Microsoft Excel has proven its robustness as a useful tool in data analysis, advanced data analysis functions of Microsoft Excel and the features of the same were utilized to perform relevant calculations. The qualitative data was evaluated using thematic content analysis. Thematic analysis is a popular method for evaluating qualitative data on unexplained phenomena (Maguire and Delahunt, 2017; Creswell and Poth, 2018). It is a technique for defining and analysing data based on themes and relative frequency. It is also a platform for organizing and analysing data to come up with clear conclusions and outcomes (Vaismoradi, et al., 2013). Accordingly, thematic content analysis was performed under four main themes.

4. RESEARCH FINDINGS AND DISCUSSION

Study findings were evaluated under two aspects: namely, quantitative, and qualitative aspects. A comprehensive online questionnaire was distributed among key construction industry professionals namely Engineers, Project Managers and Quantity Surveyors who have considerable exposure in the selected small-scale construction companies in the local construction industry. The collected data was analysed using descriptive statistics such as mode, mean and standard deviation. Thirty-four responses were collected, and 3 responses were eliminated from the further study as those respondents claim that they

were not impacted due to the pandemic. The research sample for further analysis includes only the small-scale companies that were affected by the COVID-19 pandemic. Data collection for the qualitative findings was done through semi-structured interviews with 30 owners of selected small-scale construction companies in the Colombo district. The gathered interview data were analysed using thematic analysis. Participants were asked to describe how the COVID-19 has affected their company in selected aspects. Those aspects were selected as an outcome of a thorough literature review. The characteristics of the interviewees are listed in the table below. All the companies are grade C7 companies whose annual turnover is about LKR 5-10 million. More than 80% of the respondents are in the building construction sector while the rest is in the water supply and sewerage construction sector in the Colombo district. All the companies were established before the pandemic and all the company owners had experiences in the construction sector parallel to the pandemic issue. Characteristics of the participants are presented in Table 1.

Table 1: Characteristics of participants

Style Name	Company Grade	Participant	Position
Building Construction	C7	P1, P2, P3, P5, P6, P7, P9, P10, P11, P13, P14, P15, P16, P18, P19, P20, P21, P23, P24, P25, P26, P28, P30	Company Owner
Road Construction	C7	P4, P27, P29	Company Owner
Water Supply and Sewerage Construction	C7	P8, P12, P17, P22	Company Owner

4.1 CASH FLOW PROBLEMS OCCURRED IN SMALL-SCALE CONSTRUCTION COMPANIES DUE TO PANDEMIC

4.1.1 Theme 1 - Financial Impact

The data gathered by conducting interviews with the company owners indicated that the COVID-19 pandemic has severely affected the small-scale construction company's finances. In March 2020, the first COVID case was identified and from there onwards, the government has imposed crucial restrictions and island wide curfews from time to time. As a result, the majority of the construction projects were closed or delayed. Thus, many companies could not be able to engage in new projects and it adversely affected their finances. For instance, one company owner (P1) reported that they had made a loss due to less work during the shutdown. Clients also find it difficult to raise funding for projects, which has an impact on their company's cash flow. Contractors weren't paid for the work they did, and they had to pay the permanent employees with their own funds. This was also admitted by P3, P4, P7, and P11. The Central Bank of Sri Lanka (CBSL), which is the financial sector regulator in the country, has built up a whole new relief package to assist businesses and self-employed people who were affected by COVID-19 in March 2020. Under this scheme, small business owners were given a 6-month debt moratorium on bank loans and the period was further extended later. Also, CBSL provided working capital loans up to a total of LKR 50 billion for Small and Medium Enterprises (SMEs) in the country, but P9 revealed that they did not get an opportunity to have this facility. All the respondents claimed that worker absence and fewer workers

at project sites slowed project development. It severely affected the financial aspect of the company since it led to project delays. Since the district borders were closed, owners admitted that they had to incur more costs to bring their workers from the rural areas. Many of them stated that travelling restrictions limit transportation to Colombo, forcing many firms to close, resulting in declining funds. Project delays, cost overruns, labour shortages, and financial losses have all been mentioned. Comments made by participants on financial impact are summarised in Table 2.

Table 2: Summarised comments of thematic analysis performed on financial impact

Participant	Thematic Analysis Comment
P1	Day-to-day operations are severely affected because of the unplanned expenses and payment delays of clients.
P3	Labour shortage due to the restrictions prevailed in the Colombo district.
P8	Delay of payments from clients especially in the government projects has strongly affected.
P9	Too many expenses due to increase in the health and safety precautions (PPE).
P12	Cannot pay for the bank loans since the delay of projects.
P25	Clients are hesitant to give the advance payment.

4.1.2 Theme 2 - Company Cash Inflow

Findings revealed that the cash inflow and payment schedules of those companies were affected adversely due to the pandemic. The majority of those small-scale companies are sub-contracting companies. P2 and P24 stated that when the main contractors shut down their projects due to various reasons associated with the pandemic, it directly affects the cash inflow of their company since they were not paid for their work done. All the participants admitted that they experienced payment delays from the client. More than 75% of the participants are involved in government projects. P4, P8, P9, P13, P21, and P26 clearly stated that government projects are heavily affected since the government was hesitant to make the payments on time. Thus, the projects were postponed until the contractor received payments. Even though it has been almost 2 years since the start of the pandemic, client funding for most of the government projects are not released. For instance, P6 and P23 admitted that their companies have not started government projects even though the agreements were signed during the first half of 2020. The stated reason was that the “government funds have not yet been released” due to the economic breakdown of the country. Also, P25 further stated that even private clients were reluctant to do the payments; especially the advance payment and they now prefer to pay for the value of work done. However, P5 indicated that their company had both ongoing private and government projects. Although the payments were delayed in government projects, they did not stop the projects, since they were able to slowly manage the same by doing private projects. Table 3 presents some excerpts of participant opinions.

Table 3: Summarised comments of thematic analysis performed on company cash inflow

Participant	Thematic Analysis Comment
P2	Payments are delayed since the main contractor halted the project.
P4	Payments from the government clients were completely stopped.

Participant	Thematic Analysis Comment
P5	Payments are very slow from the private clients since he could not raise funds.
P13	Had to halt projects which client is the government. Also, we (contractors) cannot claim for delayed payment from the government. It heavily affected our cash flow.
P18	Delay in certification of IPAs.
P28	Even though we have started our daily operations, the payments from the clients are still delayed.
P30	As a result of the payment delay, the projects were not completed on time.

4.1.3 Theme 3 - Payment Schedules

A delay in payment by a party involved in the payment process may have an impact on the entire payment chain (Abdul-Rahman, et al., 2011). P6 stated that payment issues at the top of the hierarchy cause a major cash flow problem for the whole contract chain. Also, P4, P12, and P26 admitted that they encountered issues in paying the salaries of the permanent employees. P12 admitted that employees got half-payments for two months. Even though the country's situation in terms of the pandemic is improving, all the participants indicated that as company owners they are still unable to give bonuses and rewards to the employees. Further, all the participants pointed out the increase in construction material prices due to the economic downturn. P2 stated that they cannot cope with the price increase, and they are on the verge of bankruptcy. Also, P5 revealed that even in Colombo, which is the commercial capital of the country, there is a scarcity of construction materials such as iron, aluminium, cement, etc. in the market and also the price increase of those materials was dramatic during the recent past. Furthermore, P14 admitted that the sudden price escalation of construction materials after the third wave of COVID-19 severely affected the estimated tender costs and their company profit margins. Findings further revealed that 25% of the company owners have loans to pay in monthly instalments. Even though they received some concessions at the start of the pandemic, the economic downturn after the third wave of COVID-19 compelled them to pay their debts regularly. P16 revealed that now they had to allocate more funds for health and safety, which directly affected their cash flow. Furthermore, P20 admitted that they have stopped operations completely for 1 month since 90% of the employees were tested covid positive. They further revealed that the company had to bear all the costs of quarantining laborers, PCR tests, food, sanitation, etc. P12 admitted that even though the projects were progressing, the company is not making profits, since the expenses are high compared to the cash inflows. The findings indicated that the number of workers on the building site was reduced in order to comply with the social distancing guideline, and also there was a reduction in overall project output and schedule delays, as well as cost escalations. Table 4 presents some examples of participant opinions.

Table 4: Summarised comments of Thematic analysis performed on payment schedules

Participant	Thematic Analysis Comment
P1	Supply chain is disturbed as material prices are very high.
P4	Our cash outflow is higher than the cash inflow because of the pandemic.

Participant	Thematic Analysis Comment
P8	We cannot start new projects until these delayed ongoing projects are completed since we cannot cope with rising expenses.
P14	There is a shortage of materials, and the prices are very high.
P19	Small scale companies cannot survive if the material prices rise daily.
P22	Cannot pay for the bank loans since the delays of projects and client payments.

4.2 STRATEGIES USED BY COMPANIES TO OVERCOME CASH FLOW PROBLEMS

Meanwhile, the survey respondents were asked to choose cost-cutting methods that their companies followed to reduce the impact on cash flow disruptions as a result of COVID-19. The results were analysed using the descriptive statistical method (Eq. 01).

$$\text{Percentage} = \frac{\text{No.of responses for a particular method}}{\text{Total valid responses}} \times 100\% \quad (\text{Eq. 01})$$

The majority of the respondents (58%) indicated that they have reduced their operational costs like electricity, water, Wi-Fi, etc of the company to maintain their cash flow at this moment. 52% of the respondents stated that companies have reduced giving bonuses and rewards to the employees while 48% of the companies have completely stopped recruiting new employees which will be an extra expense for them at this moment. Unfortunately, 16% of the respondents admitted that they have dismissed employees as a cost-cutting method. Furthermore, 6% of the respondents acknowledged that they have not taken any cost-cutting measures to manage the cash flow. Findings are presented in Figure 1.

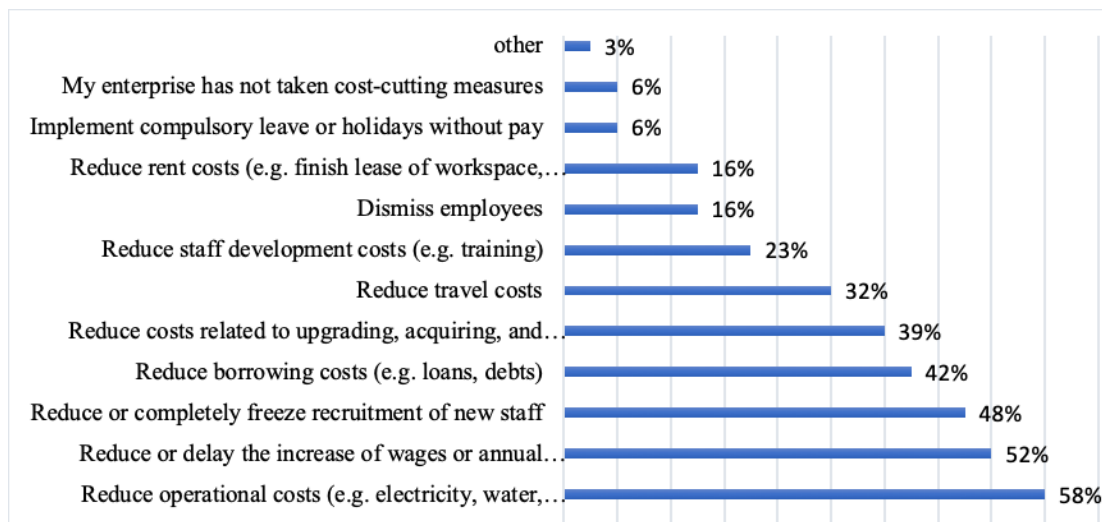


Figure 1: Cost cutting measures taken by companies

Lastly, the interviewees were asked about the strategies they are willing to use to overcome the financial problems that occurred during the pandemic. Six strategies, which were identified through a comprehensive literature study were given to choose from while there was an open option for them to comment on any new strategy which was used by them. And “modifying supply chain agreements” was the most preferred strategy of the respondents among them. While doing the study, it was evident that small-scale companies are in the most vulnerable situation due to this pandemic. The main financial

issue emphasised was payment delays by clients. Material shortage during the pandemic also led to rapid change in material pricing and the payment delays hence lack of liquidity compelled many companies to modify supply chain arrangements (81%). Forty-five percent (45%) of the respondents admitted that they are willing to create partnerships with other enterprises in order to reach more clients. This illustrates the risk of bankruptcy of small-scale companies due to COVID-19. Thirty-five (35%) percent of the respondents acknowledged that business continuity planning can be used as a strategy to overcome cash flow problems, while 23% of the respondents chose to diversify markets/reach new clients as a strategy. Many respondents stated that government projects were halted due to a lack of payments. According to the study, diversifying markets will be the best option they have at present. The least selected strategies are decreasing the price of selected products and changing distribution channels like online purchasing etc. (19%). Summary of findings on strategies used to overcome the financial issues are presented in Table 5.

Table 5: Strategies used to overcome those financial issues

Strategies Used	Frequency	Percentage
Decrease price of selected products or services	6	19%
Change distribution channels (e.g., online purchasing)	6	19%
Diversify markets (e.g., operate in different locations or with new clients)	8	26%
Ensure business continuity planning	11	35%
Create partnerships with other enterprises or develop loyalty plans to reach more clients	14	45%
Modify supply chain agreements (e.g., source from other suppliers, negotiate with suppliers)	25	81%

Majority of the participants admitted that they had to reduce the number of temporary workers of the company in order to control salary issues. P20 admitted that they had to dismiss permanent employees to manage their cash flow. Furthermore, P7, P10, and P13 admitted that to cover the delay in cash inflows from government projects they had to engage with small-scale private projects. Also, P27 revealed that as a strategy they reduced their operational costs such as electricity, water, Wi-Fi, etc. P2, P8, P15, and P29 also admitted the same. Furthermore, P6 and P11 indicated that they completely stopped new recruitments since they had no capacity to pay any other employees without getting funds from the clients. Also, many participants agreed with the reduction of bonuses and rewards to employees which was a practical strategy that can be implemented in such a situation. P10 revealed that borrowing from banks or financial institutions will not be the right decision in a situation like this. With the drastic increase in material prices, many companies not only face payment delays but also supply chain disturbances. Thus, the majority approved modifying the supply chain as one of the key strategies that can be used in a pandemic situation. Furthermore, P16 and P22 admitted partnering with a capable alliance company is another strategy to survive during this period.

Table 6 presents some excerpts of participant opinions.

Table 6: Thematic analysis comments on strategies used

Participant	Thematic Analysis Comment
P1	Modifying supply chains is the only strategy we implemented.
P9	Reduce operational costs as much as we can in the company and completely stop new recruitments.
P11	Changed some of our suppliers because material prices vary from one supplier to another.
P16	Stopped new recruitments and stopped hiring temporary workers to the site.
P17	Reduced giving bonuses and rewards for the employees for the time being.
P22	Arranging partnerships with a capable company.
P26	Reduced upgrading costs for plants and machines.

4.3 SUMMARY OF THE ANALYSIS

This research is mainly focused on problems encountered in the cash flow of small-scale construction companies in the Colombo district and the strategies used to overcome those problems. According to the participants, the main issues they had to face were payment delays from the clients, especially from the government clients, and a sudden increase in expenses. The economic downturn experienced in the country due to the third wave of the COVID-19 has severely affected small-scale construction companies. Also, the data analysis elaborated that small-scale construction companies failed in cash flow management because of these problems which have led many companies to the verge of bankruptcy. As strategies, participants mentioned reduction of rewards and bonuses, reduction of temporary labour, completely freezing new recruitments, modifying supply chains, and reduction of operational costs. Creating partnerships with financially strong companies and creating business continuity plans were the proposed possible strategies recommended by the participants. The first objective of the study is covered by the literature review and the rest of the objectives are covered through the finding's discussion of the study.

5. CONCLUSION

The majority of the small-scale construction firms in Sri Lanka work as subcontractors and generate job opportunities for a considerable number of people. Therefore, the country's economy will be threatened if the small-scale construction companies face difficulties in their future operations. This study mainly focuses on small-scale construction firms in the Colombo district and the impact of COVID-19 on the cash flow of those companies. A mixed-method approach was adopted as the research technique. The study strengthened the view that the small-scale construction companies were heavily affected by COVID-19 in terms of their financial aspect which is mainly the cash flow of the company. Both the cash inflows and the outflows were severely disrupted due to the financial issues that occurred due to the pandemic. Moreover, supply chain disruptions, termination of contracts, project delays, inability to pay loans, shortage of labour, and changes in health and safety precautions directly affected the cash flow of those small-scale construction firms. Further, the study revealed that disruption of the cash flow significantly affected the survival of those small-scale construction companies and during the peak of the pandemic, the majority of small-scale construction firms were unable to benefit from various government programs. As a result, some companies faced severe

financial difficulties, leading them to bankruptcy or closing down the business. According to the findings, most of the companies have resumed operations with major disruptions to workflow and progress of projects. The most often agreed-upon response by company owners was the decrease in revenue as a result of the pandemic, indicating that COVID-19 has had a negative impact on revenue. As per the data, many businesses did not pay their employees their full salaries throughout the shutdown, and even after the shutdown bonuses and rewards were still not paid. Also, companies stopped recruiting new employees, reduced their operational costs of projects, and reduced upgrading plants and equipment at present to cope with the pandemic. Also, due to the prevailing economic crisis after the third wave of COVID-19, the construction material prices increased drastically. This led company owners to modify their supply chain agreements. According to the participants, the cash outflow was higher compared to the cash inflow in which the owners unintentionally failed to manage the cash flow of the company. Based on the data, this study suggests a few strategies to overcome financial problems that occurred due to the pandemic. Freezing new recruitments, reduction of temporary workers, reduction of operational costs, and curtailing bonuses and rewards were the strategies used by those companies to manage cash flow problems. Furthermore, it will help reduce the financial burden of small-scale construction firms if they are willing to create partnerships with financially strong companies. This is a practical strategy suggested by the participants of the research. Moreover, this study recommends modifying supply chain channels and creating business continuity plans as other strategies that can be used by small-scale construction firms in such a situation in order to lessen their financial burden.

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