

# IMPACT OF ECONOMIC CRISIS ON EMPLOYEES OF CONTRACTORS' ORGANISATIONS IN THE SRI LANKAN CONSTRUCTION INDUSTRY

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## ABSTRACT

*The construction industry contributes more than 6% of the GDP of the Sri Lankan economy, employing workers at different levels of the value chain. The economic crisis in the country from 2019-2022 has had a significant impact on contractors' organisations in the Sri Lankan construction industry, resulting in job losses, pay cuts, and reduced working hours. Hence this study aims to investigate the impact of the economic crisis on the employees of contractors' organisations in the Sri Lankan construction industry, the most affected level of employees, and propose strategies to minimise the impact on the most affected level of employees. This study has been done using the mixed-method approach. Thirty-three (33) employees participated in a questionnaire survey and seven (7) managerial-level professionals were interviewed who are currently engaged in construction projects. This study has explored the levels of employees including technical, supervisory, and similar levels, professional level, administration, and managerial level. Further, this study provides the strategies adopted by the employees and the contractors to overcome the impact of the crisis, including measures to enhance productivity, cost reduction strategies, and access to financial support. The findings of the study will provide insights into the impact of the economic crisis on the construction industry in Sri Lanka and inform policy recommendations to support affected workers and ensure the long-term sustainability of the industry in a resilient way.*

**Keywords:** *Construction Contractors; Construction Industry; Developing Countries; Economic Crisis; Employees.*

## 1. INTRODUCTION

The construction industry holds significant importance within the Sri Lankan economy, making substantial contributions to the country's Gross Domestic Product (GDP) and offering considerable employment opportunities. Over the years, the construction industry's contribution to Sri Lanka's GDP has shown consistent growth, with a recorded contribution of 6.1% in 2016, followed by subsequent increases of 7.2% in 2017, 6.8% in 2018, 6.9% in 2019, and 6.2% in 2020 (Central Bank of Sri Lanka, 2021; Central Bank

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of Sri Lanka, 2020). This industry employs a diverse workforce, ranging from unskilled labourers, semi-skilled labourers, skilled labourers, managers, and supervisors. According to the Department of Census and Statistics (2021), the construction industry employed approximately 1.03 million individuals in 2020, representing around 7.5% of the total employment in Sri Lanka. However, the construction sector, like many others, has been significantly impacted by the economic crisis that has plagued Sri Lanka since 2018. This crisis encompasses various challenges, including rising public debt, diminishing foreign exchange reserves, trade imbalances, and the additional burden imposed by the COVID-19 pandemic in 2020 (De Silva et al., 2008). The industry has faced adverse consequences such as reduced investment, a scarcity of skilled labour, declining demand for construction services, and a decline in its contribution to the GDP. As stated in Inflation, Consumer Prices (Annual %) - Sri Lanka (2022), Sri Lankan real GDP is expected to fall by 9.2% in 2022 and fall by 4.2% in 2023. Further, the inflation rate grew up to 73.7 % by August 2022 when it was 17.5% in February 2022.

The construction industry is highly vulnerable to economic crises, as evidenced by the research conducted by (Eicher et al., 2018). During periods of economic downturns, construction projects are often postponed or abandoned, leading to job losses and decreased investment. According to Perera (2010), the 2008 economic crisis, triggered by the global financial crisis, had a significant impact on the construction industry of Sri Lanka resulting in employment losses and a decline in project quality due to inadequate investment and the construction sector experienced negative consequences for workers and project outcomes. Fadhil et al. (2021) found that the economic crisis led to a decrease in construction projects, causing job losses, especially among contractor businesses. Many workers were laid off, and others faced reduced working hours. Sriyani (2022) focused on small and medium-sized contractor groups and discovered that financial difficulties due to the crisis directly affected their workforce. Employees experienced reduced wages and irregular payments. Similarly, Edmund et al. (2018) observed a decline in the demand for construction services, resulting in job losses among contractor firm staff members.

Despite the significant impact on contractor organisations' employees in Sri Lanka, there is a research gap in understanding this specific aspect, with limited attention given to their unique challenges compared to the broader impact of the pandemic on the country's economy. Therefore, the objective of this research is to investigate the impact of the economic crisis on employees of construction industry contractors' organisations. Additionally, the study will propose strategies to mitigate the negative effects on the most affected level of employees. The findings of this research will have significant implications for policymakers, employers, and employees in the construction industry, offering valuable insights into the economic and social ramifications of the 2019- 2022 economic crisis in Sri Lanka.

## **2. LITERATURE REVIEW**

### **2.1 IMPACT OF THE ECONOMIC CRISIS ON THE CONSTRUCTION INDUSTRY OF SRI LANKA**

The term "economic crisis" encompasses various situations where financial institutions or assets experience an unexpected and significant loss in value (Gaziet al., 2022). A crisis, as defined by Angelita and Saksono (2023), refers to an unforeseen event that poses

a substantial threat to an organisation's core values, necessitating a swift response. Predicting financial crises is a challenging task due to the complexity of the factors involved (Berg & Catherine, 2000). The economic crisis in Sri Lanka has presented a significant obstacle to the nation's economy, with profound effects on the construction sector. The crisis has been characterised by a decline in economic growth, an increasing trade deficit, a reduction in foreign exchange reserves, and a substantial rise in public debt. These challenges have had far-reaching implications for various economic sectors, including the construction industry. The Annual Report 2019 of the Central Bank of Sri Lanka highlighted several economic challenges faced by the country during that year, such as a widening trade deficit, a decline in foreign exchange reserves, and a significant increase in public debt. Pathirana (2021) noted that the construction industry in Sri Lanka has experienced a decline in investment, a shortage of skilled labour, and a reduced demand for construction services. Moreover, they pointed out that the industry has encountered additional obstacles, including labour shortages, disruptions in the supply chain, and financial constraints. These challenges have resulted in a decrease in the number of construction projects and employment opportunities within the sector.

## **2.2 IMPACT OF THE ECONOMIC CRISIS ON EMPLOYEES OF CONTRACTORS' ORGANISATIONS**

The Global Financial Crisis, as argued by Fratzscher (2012), significantly impacted the economy of the countries globally. This economic downturn had far-reaching consequences, including in the construction industry (Alshanbri et al., 2015), where employee turnover and knowledge retention were affected. According to Ramachandra (2006), the construction industry heavily relies on labour-intensive processes, making labour costs a significant component. In this context, the labour force in the construction industry refers specifically to the workforce involved in on-site construction activities.

However, the employment dynamics in construction have become increasingly temporary and insecure due to the practice of outsourcing labour through subcontractors (Wells and International Labour Organisation, 2001). In the overall European Union (EU), the number of employees in 2008 was estimated to be approximately 15 million, experiencing a 1% reduction compared to 2007. This decline worsened to 51% by 2009 due to the Global Economic Crisis (Central Bank of Sri Lanka, 2008)

Crises in the construction industry are inevitable due to human involvement, and they do not discriminate based on company size or specialisation. Both small and large companies, as well as specialised and general companies, can face potential demise at some point.

To further explore the impact of the economic crisis on employees of contractor organisations in the construction industry, it is essential to consider the specific level of employees within these organisations. Gunawardena and Jayawardena (2001) have proposed an occupational structure categorisation that can be applied in this research context. Their categorisation encompasses administration and managerial, professionals and technical, supervisory, and similar grades. For this research, these categories will be interpreted as shown in Table 1.

Table 1: Occupational structure categorisation of employees  
(Source: Gunawardena and Jayawardena, 2001)

Level of Employment	Professions
<b>L1</b> - Administration and Managerial - Top Management Level	Administrators Project Managers
<b>L2</b> - Professionals - Middle Management Level	Engineers Architect Quantity Surveyors Accountants
<b>L3</b> - Technical, Supervisory, and similar grades - Lower Management Level	Technical Officers Draftsman Site Supervisors

Zuo et al. (2015) conducted a study on the impact of the economic crisis on contractor organisations in Australian construction industry. They identified the impacts during the Global Financial Crisis in 2008 as listed below:

- Lay off employees,
- Reducing the number of graduate positions, and
- Freezing salaries/bonuses/overtime for employees.

These findings provide insights into the specific consequences faced by employees in the construction industry during economic crises. Understanding these impacts is crucial for formulating effective strategies to mitigate the negative effects on employees of contractor organisations. However, it is important to note that this literature review focuses on the broader context of the impact of economic crises on employees of contractor organisations, rather than specific studies related to the Sri Lankan construction industry.

### 2.3 STRATEGIES TO OVERCOME THE IMPACT OF THE ECONOMIC CRISIS ON EMPLOYEES OF CONTRACTOR ORGANISATIONS

Several strategies can be implemented to overcome the impact of the economic crisis on employees of contractor organisations in the construction industry. Firstly, providing financial support to businesses and employees can help alleviate the immediate financial burdens caused by the crisis. This can include government stimulus packages, tax relief measures, and loan assistance programs to help businesses retain their workforce and maintain operations. Secondly, promoting training and upskilling programs is essential to address labour shortages and skill gaps resulting from the crisis. Investing in employee development and providing opportunities for reskilling and retraining can enhance their employability and adaptability in a changing industry landscape (Sri Lanka: World Bank Open Data, n.d.-a). Training programs can focus on emerging technologies, sustainable practices, and project management to equip employees with the necessary skills to thrive in the post-crisis construction industry. Thirdly, implementing policies to promote investment and economic growth can stimulate the construction sector and create employment opportunities. Governments can incentivise infrastructure projects, provide subsidies for construction activities, and streamline regulatory processes to attract private investment in the sector (Sri Lanka: World Bank Open Data, n.d.-a). These measures can lead to increased project demand, which in turn generates employment and supports the recovery of contractor organisations.

### 3. RESEARCH METHODOLOGY

This research seeks to investigate the impact of the 2019-2022 economic crisis on employees of contractor organisations in the Sri Lankan construction industry and identify the most affected level of employees. To achieve this, a mixed research design approach will be employed. Initially, a literature review was conducted to explore the existing knowledge on the impact of economic crises on employees in the construction industry. This literature review serves as a foundation for the research study and provides insights into previous findings and gaps in the current understanding of the subject. Subsequently, a questionnaire survey was administered to 33 employees currently working in CS2, CS1, and C1 grade contractor organisations in Sri Lanka since the study only forces on the larger scale contractor organisations. These employees were actively involved in ongoing construction projects. To select the survey participants, a non-random convenient sampling method was employed, considering the accessibility and availability of individuals within the targeted organisations. In the second stage of data collection, seven managerial-level professionals were selected for interviews using a convenient sampling method currently working in CS2, CS1, and C1 grade contractor organisations in Sri Lanka. These professionals possess first-hand experience of the impact of the economic crisis on their respective organisations. The interviews were conducted to gather in-depth insights and perceptions regarding the specific effects of the crisis on employees. Phenomenology was chosen as the inquiry strategy for analysing the data collected from the interviews.

#### 3.1 QUESTIONNAIRE SURVEY

The main objective of the questionnaire survey was to identify gaps in the interview guideline that had been developed through a literature review. It should be noted that the majority of the data found in the literature review pertained to developed countries. Thus, the survey aimed to assess the applicability of the literature review data to a developing country context such as Sri Lanka. By addressing this research objective, the survey aimed to bridge the gap between existing literature and the specific conditions in Sri Lanka's construction industry during the economic crisis. As the analysis method of this research "probability" was used as stated by Gelman et al. (2014). According to the authors, probability is a central concept in modern statistics, and it plays a crucial role in data analysis. Berzofsky, et al. (2018) stated that probability-based sampling methods, such as simple random sampling and stratified sampling, have long been recognised as effective techniques for ensuring representative data from questionnaire surveys. Furthermore, to their study, probability theory and statistical inference are essential tools in analysing questionnaire data, as they enable researchers to estimate population parameters and draw meaningful conclusions.

*Table 2: Respondent's profiles for questionnaire survey*

<b>Profession</b>	<b>No. of participants</b>	<b>Type of Project Involved during the Crisis</b>
Project Managers	4	Commercial Building/Residential Building/Road Project/ Water Supply Project
Engineers	8	Commercial Building/Residential Building/Road Project/ Water Supply Project

Profession	No. of participants	Type of Project Involved during the Crisis
Quantity Surveyors	9	Commercial Building/Residential Building/Road Project/Water Supply Project
Draughtsman	2	Residential Building
HR Manager	3	Commercial Building/Residential Building/Road Project/Water Supply Project
Site Supervisors	2	Commercial Building
Surveyors	2	Residential Building
Technical Officers	3	Residential Building

### 3.2 SEMI-STRUCTURED INTERVIEWS

Seven managerial-level professionals, as outlined in Table 3, who were actively involved in construction projects during the economic crisis, were selected for interview purposes.

*Table 3: Respondent's profiles for semi-structured interviews*

Interviewee	Designation	Type of Project Involved	Type of CIDA grading of the interviewee's organisation	Industry Experience
R1	Project Manager	Building	CS2	29
R2	Construction Manager	Building	CS2	27
R3	Project Manager	Road	CS1	26
R4	Senior Engineer	Building	CS2	19
R5	Deputy Project Manager	Building	CS1	25
R6	Engineer	Building	C1	10
R7	Senior Engineer	Building	CS2	17

These interviews aimed to gather diverse opinions and experiences related to the impact of the crisis on employees of contractor organisations. The data collected from these interviews were subjected to manual content analysis, following the methodology outlined by Georgescu (2020). Content analysis was chosen as it provides flexibility, objectivity, and rigor in analysing interview data. It is a versatile method applicable to both individual and group interviews, and it can be effectively employed in various research contexts and topics.

The objectives of the interviews were twofold: to validate and contextualise the existing literature findings within the specific conditions of the country under study and to identify the employee level most affected by the economic crisis. By involving professionals from the local construction industry in the interviews, the researchers aimed to gather practical insights and ensure the reliability of the research outcomes. The selected respondents, who held managerial positions, provided a comprehensive understanding of employment dynamics and offered a nuanced perspective on the consequences of the crisis. Additionally, the interviews sought expert opinions on strategies to mitigate the impact of the economic crisis on the most affected level of employees. These insights were valuable in formulating effective measures within contractor organisations. The profiles of the respondents can be found in Table 3.

## 4. RESEARCH FINDINGS AND ANALYSIS

### 4.1 FINDINGS OF THE QUESTIONNAIRE SURVEY

According to the questionnaire survey: (i) job losses, (ii) salary reductions, (iii) cutdown of welfare activities, (iv) reducing training and tertiary education, and (v) internal transfer to other projects, have been identified as the impacts of the economic crisis on the employees of the construction industry contractor's organisations in Sri Lanka.

#### 4.1.1 Impact of Economic Crisis on Job Security, Financial Status/Salary, Livelihood and Professional Development

The findings revealed that the economic crisis had a significant impact on job security and financial status/salary, as identified by the majority of respondents as presented in Figure 1.



Figure 1: Impact of the economic crisis on job security, financial status/salary, livelihood and professional development

Job security emerged as a key concern, reflecting the uncertainties and challenges faced by employees in contractor organisations during the crisis. The economic downturn likely led to layoffs, reduced working hours, and increased job insecurity among the workforces. Furthermore, the financial status and salary of employees were also heavily affected, indicating the adverse economic consequences faced by individuals in the construction industry. These findings underscore the profound implications of the economic crisis on the livelihoods and well-being of employees within contractor organisations.

#### 4.1.2 Impact of Economic Crisis on Employment

According to the literature review, some of the impacts of the economic crisis on employees of the construction industry have been identified. To validate whether they applied to Sri Lankan construction industry contractors' organisations, the respondents were asked to respond whether the impacts were identified by themselves, or they were affected by other employees of their organisations. The impacts were coded using the letter 'Q' as listed in Table 4.

Table 4: Validation of applicability of impacts

Impact Code	Impact	Probability	%
Q1	Employed with no effect on the salary	9	27%
Q2	Employed with basic salary + percentage of incentive	20	61%
Q3	Employed with a basic salary only	11	33%
Q4	Employed with no salary	4	12%
Q5	Became unemployed	9	27%

Impact Code	Impact	Probability	%
Q6	Cutdown of welfare activities	29	88%
Q7	Reducing training and tertiary education	30	91%
Q8	Internal transfers of staff to other projects	22	67%
Q9	Flexible working arrangements	18	55%

Based on the findings, it was observed that the majority of employees in contractor organisations were engaged under a compensation structure comprising a basic salary along with a percentage-based incentive scheme affected by the economic crisis. Moreover, the impact of the economic crisis was evident in various aspects, as highlighted by the respondents. These included the reduction or elimination of welfare activities provided to employees, a decrease in training and tertiary education opportunities, internal staff transfers to different projects, and the implementation of flexible working arrangements. For a detailed overview of the specific impacts reported by the respondents, please refer to Table 4.

#### 4.1.3 Most Affected Level of Employees

In this section, the respondents were asked to identify the most affected level of employees by considering the impacts mentioned in Table 5 as per their personal experience and considering the other employee levels, which were mentioned in Section 2.2.

Table 5: Most affected level of employees as per questionnaire survey

Factor Code	Impact	L1	L2	L3	L1 & L2	L1 & L3	L2 & L3	All
Q1	Employed with no effect on the salary	21	0	1	4	0	0	3
Q2	Employed with basic salary + percentage of Incentive	2	7	1	11	0	5	6
Q3	Employed with a basic salary only	2	3	13	3	1	7	2
Q4	Employed with no salary	1	1	13	0	0	6	1
Q5	Became unemployed	2	1	19	0	0	4	3
Q6	Cutdown of welfare activities	2	3	1	2	0	2	21
Q7	Reducing training and tertiary education	1	4	1	2	0	1	21
Q8	Internal transfers of staff to other projects	1	4	2	4	0	3	17
Q9	Flexible working arrangements	5	3	1	2	0	1	18

The impacts resulting from the economic crisis were identified through a literature survey and questionnaire responses. The data revealed varying degrees of impact on employees at different levels within contractor organisations. Level 1 employees were the least affected, with their employment and salaries remaining largely unaffected. Level 2 employees also experienced a minimal impact, retaining their jobs and receiving basic salaries along with incentives. However, Level 3 employees faced a wider range of impacts, including reduced benefits, limited career advancement opportunities, unemployment, or no salary at all. Additionally, there was a reduction in welfare activities, such as training and internal transfers to other projects, across all employee levels. These findings highlight the distinct challenges faced by employees at different



levels within contractor organisations during the economic crisis, emphasising the varying levels of vulnerability.

## 4.2 FINDINGS OF THE SEMI-STRUCTURED INTERVIEWS

### 4.2.1 Impact of Economic Crisis on Employment

The impact of the economic crisis on employee layoffs in contractor organisations varies based on project funding sources. Participant R1 reported minimal impact on their organisation, which was funded by a UAE client, with no job losses. However, measures were taken to reduce costs. In contrast, participant R2 stated a significant impact on their organisation, particularly in April of the current year, leading to construction work suspension and employee terminations to cut overhead costs. To cope with the crisis, organisations implemented measures such as salary deductions and freezing bonuses/overtime. R2 mentioned a 10% salary reduction in May, increasing to 20% due to non-payment for previous work. Similar deductions of approximately 20% to 40% were observed in other organisations. Welfare activities and benefits were also affected, with cancelled annual trips and discontinued allowances during the crisis period (R4, R7).

### 4.2.2 Most Affected Level of Employees by the Economic Crisis

In semi-structured interviews, all the identified impacts from the literature survey and questionnaire survey were combined and those were coded with the letter 'S' as mentioned in above Table 6.

*Table 6: Most Affected Level of Employees as per semi-structured interviews*

Factor Code	Impact	L1	L2	L3	L1 & L2	L1 & L3	L2 & L3	All
S1	Lay off employees	0%	0%	71%	0%	0%	29%	0%
S2	Reducing the number of graduates positions	14%	14%	0%	57%	0%	14%	0%
S3	Freezing salaries/bonuses/overtime for employees	0%	0%	0%	0%	0%	0%	100%
S4	Cutdown of welfare activities	0%	0%	0%	0%	0%	0%	100%
S5	Reducing training and tertiary education	0%	0%	0%	43%	0%	0%	57%
S6	Internal transfers of staff to other projects	0%	0%	0%	0%	0%	71%	0%
S7	Flexible working arrangements	0%	0%	0%	57%	0%	43%	0%
S8	Engagement of employees in contract basis agreements	0%	0%	0%	0%	0%	71%	0%

According to the analysis, L3 employees were affected by the layoff from their employment during the economic crisis (Refer to Table 6). R2 stated that *“the lower-level employees are much affected by the crisis because, in most of the construction contract, they were employed as contract basis staff. When the construction work stopped automatically, they became unemployed”*. Further, R3 emphasised that *“in our company the lower-level employees such as site supervisors, they get paid for the number of days that they work at the site. When the construction at the site gets stopped, they automatically lose their jobs”*. R6 added that *“the lower-level employees have fewer options in the industry”*. According to the analysis of the interviews, most of the respondents have mentioned that the reduction of graduate positions has affected the

upper (L1) and middle (L2) management levels. R1 stated that “normally graduate employees are employed in the upper levels of a company, and they are well paid because of their educational qualifications”. Further, as per the above summary, all the levels of employees have experienced freezing of salaries, bonuses, and overtime payments, Cutdown of welfare activities.

The findings of the semi-structured interviews validated the impacts that were identified through the literature survey and questionnaire survey were practical and applicable within the Sri Lankan context by achieving its objective.

#### **4.3 STRATEGIES TAKEN TO MINIMISE THE IMPACT ON THE MOST AFFECTED LEVEL OF EMPLOYEES**

After the economic crisis, R2 warns of a potential skill shortage as employees seek career changes. To mitigate this, R2 emphasises the importance of formal engagement, while R5 stresses the need to update employees on future work opportunities and secured projects. Further, R2 suggests that appointing individuals to handle multiple tasks reduces the need for extensive training. This approach minimises job losses during economic crises, as one person can seamlessly transition between tasks, ensuring job security even if one task is lost. R6 transferred employees to other organisations and recommended their placement after trying to retain them by paying salaries for three months. They searched for work opportunities elsewhere, with some employees accepting jobs that paid less but ensured they remained employed. Involvement in foreign-funded projects helps minimise the impact of the economic crisis, according to R1. Focusing on such projects enables local contractors to avoid payment delays and draw foreign currency into the country, aiding in economic recovery. R3 also suggested encouraging skilled employees to migrate to Middle Eastern countries for alternative employment opportunities.

### **5. CONCLUSIONS AND RECOMMENDATIONS**

The research aimed to address three objectives related to the impact of economic crises on the construction industry employees and strategies to overcome these challenges. The literature review revealed that the construction industry is vulnerable to economic crises and highlighted the significant impacts on employees, such as job loss, salary reduction, decreased welfare activities, and limited training and education opportunities. The second objective involved identifying the most affected level of employees, which was determined to be the lower management level (L3). These individuals had limited options in the job market and often worked on a contract basis. The final objective was to identify strategies to mitigate the impact on the most affected employees. The study validated existing strategies, including formal employee engagement, and employing experienced individuals, while also identifying new strategies like finding work opportunities in other organisations and focusing on foreign clients. The recommendations centred on implementing these strategies to minimise the impact of economic crises on construction industry employees.

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