JCBM (2025) 8(1) 14-29

JCBM

University of Cape Town

Journal of Construction Business and Management

http://journals.uct.ac.za/index.php/jcbm

Construction Claim Management among Small and Medium-Sized Contractors: A Case Study of Sri Lanka amidst its Financial Crisis

Kisaanthan Manokararajah[1]; Vaigunthan Pakeerathan[2] and Mahesh Abeynayake[3]

[1,3] University of Moratuwa, Sri Lanka
[2] Chulalongkorn University, Bangkok, Thailand

Received July 8, 2024; received in revised form October 4, 2024; January 5, 2025; May 23, 2025; accepted July 11, 2025
https://doi.org/10.15641/jcbm.8.1.1560

Abstract

This study reviews construction claims management among Small and Medium-sized Contractors (SMCs) in developing countries, focusing on Sri Lanka during its financial crisis. Economic crises intensify the sector's inherent risks and complexities, increasing claims and delaying project delivery for SMCs. The research identifies deficiencies in current claims management practices and suggests strategies for improvement during such events. A mixed-method approach, including literature reviews, surveys, and expert interviews, explores claim types, origins, and the specific impacts of exceptional events on SMCs. The findings highlight challenges such as skill shortages, gaps in contractual knowledge, insufficient delay analysis, inadequate documentation, high staff turnover, and poor negotiation and communication. To address these issues, the study proposes strategies such as implementing robust record-keeping systems, improving contractual knowledge through staff training, and fostering better collaboration and communication with project stakeholders to enable SMCs to manage claims effectively during economic crises. This research provides practical suggestions to improve claims management practices and build resilience for future crises, contributing to the stability and development of the construction industry in similar contexts.

Keywords: Construction claims, Economic crises, Small and Medium Contractors, Sri Lanka, Claim management.

1. Introduction

Construction claims are formal requests, commonly made by contractors, for time extensions or cost compensations, often arising from contract ambiguities, delays, or additional work, due to the involvement of multiple stakeholders (Reta et al., 2019; Shaikh et al., 2020). Effective claims management is crucial for ensuring fairness, controlling costs, minimizing delays, and resolving disputes in construction projects, ultimately contributing to their successful and timely completion (Umar & Ochigbo, 2024; Ssegawa & Keakile, 2023). From the contractor's perspective, the preparation and submission of claims require substantial evidence and documentation, making the process intricate and demanding (EL-Ghrory et al., 2019). Failure to substantiate reasonable claims can lead to additional costs and misallocation of resources, further complicating project management (Taofeeq et al., 2019).

The construction industry is characterized by its complexity, as each project demands distinct methods, techniques, and approaches, which in turn generate a range of risks that can influence project quality, cost, and schedule (Oke et al., 2023). In Sri Lanka, these challenges are further intensified during economic crises influenced by high inflation and the impacts of COVID-19. The pandemic disrupted construction activities, resulting in delays and additional costs, leading to numerous claims for extensions and compensation (Aceris Law, 2020). High inflation has caused abrupt price rises and currency devaluation, making it difficult for contractors to claim compensation for price escalations due to the exclusion of price escalation clauses in several tenders that violate National Procurement Guidelines (CIOB, 2021).

[1] Corresponding Author
Email address: vaigunthanpakeerathan@gmail.com

SMCs play a crucial role in the construction sector, generating employment and contributing significantly to economic development (Ranadewa et al., 2018). However, SMCs in Sri Lanka face numerous challenges, including financial constraints, resource limitations, and a lack of technical expertise, impacting their ability to manage claims effectively (Tezel et al., 2020; Jayasanka et al., 2021). The economic crisis has led to increased claims due to government regulations, material shortages, and other unpredictable events, placing additional strain on SMCs' already limited resources (Jayasanka et al., 2021).

The difficulties SMCs face in claim management are compounded by their limited institutional knowledge and fewer resources compared to larger organizations (Ssegawa & Keakile, 2023). Issues such as lack of skilled staff, poor record-keeping, inadequate documentation, and insufficient delay analysis further hinder their ability to manage claims effectively (EL-Ghrory et al., 2019; Jayasanka et al., 2021). High staff turnover and poor negotiation and communication skills exacerbate these challenges, making it difficult for SMCs to substantiate claims and secure fair compensation (Hansen & Rostiyanti, 2019).

Despite the importance of claim management, there is a notable lack of studies focusing specifically on SMCs, particularly within the context of developing countries like Sri Lanka. In light of this gap, there is a critical need to enhance the claim management processes of SMCs, especially during periods of economic crises, such as the COVID-19 pandemic. This study aims to identify the deficiencies in the existing claims management practices and propose strategies to improve them, particularly during exceptional events. Addressing these challenges is crucial to prevent disputes, ensure project continuity, and enhance the resilience of SMCs. By focusing on the specific issues faced by SMCs, this research will provide valuable insights and practical recommendations to improve claims management processes. Ultimately, this study aims to increase the success rate of claim submissions for SMCs in Sri Lanka, thereby contributing to the overall stability and development of the construction industry in developing countries during financial crises and other exceptional events.

2. Literature review

2.1. Small and Medium-Sized Contractors in Sri Lanka

SMCs are essential to the economic infrastructure of developing countries, providing employment and driving innovation (Ye & Tekka, 2020). They contribute to product innovation, research and development, and poverty reduction (Ahiawodzi & Adade, 2012). According to the Construction Industry Development Authority (2015), an organization with a grade between C2 to C6 falls under the category of SMCs for Sri Lanka. The construction sector is widely considered one of the riskiest business sectors, particularly challenging for SMCs in Sri Lanka (Ranadewa et al., 2018). SMCs typically lack the manpower, financial resources, and knowledge required to adopt new technologies and effective development plans compared to large contracting organizations (Agwu, 2014; Hosseini et al., 2016). For SMCs, the most critical challenges include project delays, budget overruns, excessive resource use, construction waste, and poor construction quality (Handayani, 2017). Additionally, high interest rates, limited access to capital, and dramatic increases in energy costs are constant threats faced by SMCs in the industry (Ranadewa et al., 2018).

2.2. Construction Claims

Construction claims are requests made by one of the contracting parties, typically the contractor, for compensation for losses incurred due to the other party's failure to fulfil contractual obligations (Likhitkar, 2022). Claims are a common cause of disagreement between contractual parties in construction projects and can divert significant resources both financially and in terms of staff time from ongoing projects (Sibanyama et al., 2012). A contractor may claim additional compensation due to alterations in the contract, while an employer may seek compensation for additional work not adhered to by the contractor (El-Wakel, 2006). Many project stakeholders view construction claims as unpleasant and disruptive aspects of a project (Shah et al., 2014). The number of claims in construction projects is increasing, making effective claims management essential to avoid disputes and ensure project completion (Apte & Pathak, 2016). Claims can be categorized into several types, including contractual claims, extra-contractual claims, ex-gratia claims, and quantum meruit claims. As shown in Table 1 (Appendix 1), many factors cause claims in projects (Bakhary et al., 2015).

2.3. Claim Management

Claim management involves the coordination of stakeholders for evaluating and resolving claims to ensure fair compensation and avoid disputes (Kululanga et al., 2001). The claim management process includes identification, notification, substantiation, documentation, presentation, and negotiation (Zaneldin, 2006). Effective claim management is crucial for maintaining project timelines and budgets, especially during exceptional events that disrupt normal operations. Table 2 (Appendix 1) summarizes the major issues associated with the claim management process in the construction industry.

In the Sri Lankan context, the six stages of construction claim management are followed as they are, but with slightly different terms (Piyumra & Disaratna, 2023).

Further to the authors, the absence of a standardized format in claim documentation requires contractors to utilize past experiences, reusable project knowledge, and a collaborative organizational culture to effectively manage the process.

2.4. Exceptional Events and Their Impact on Construction

The COVID-19 pandemic and periods of extraordinary inflation have had profound effects on the construction industry, causing delays, cost overruns, and increased claims. The pandemic, classified as a force majeure event, disrupted construction activities worldwide, necessitating extensions of time and additional cost claims (Shaughnessy et al., 2020). It led to severe disruptions globally, resulting in project suspensions, job losses, and bankruptcies in the construction sector (Gamil et al., 2022).

Despite the world having experienced significant pandemics before, no one was prepared for COVID-19, highlighting the need for robust claim management practices to navigate such events (Vithana et al., 2020). Inflation, particularly in material prices, poses another significant challenge, affecting project costs and timelines. The fluctuating prices of materials and the resulting cost overruns necessitate adjustments and claims for price escalations (Oghenekevwe et al., 2014).

2.5. Issues in Claim Management Practices

The construction industry faces numerous challenges in managing claims effectively. Key issues include a lack of awareness among site staff, inadequate documentation, and poor negotiation skills. These deficiencies often lead to disputes and financial losses for contractors (Tochaiwat & Chovichien, 2004).

Hayati et al. (2019) stated that the contracting environment is relatively more competitive with a larger number of players and narrow profit margins. Contractors bid for projects with underestimated contract amounts to sustain in the industry (Shah et al., 2014). Oyediran (2006) highlighted that the inflation rate can significantly affect the economic accruals or rate of return for contractors, resulting in a loss of profit. Effective claim management practices are essential to mitigate these impacts and ensure financial stability for contractors during exceptional events.

Effective management of construction claims is critical for the success of construction projects, particularly for SMCs in developing countries. The challenges posed by exceptional events like the COVID-19 pandemic and extraordinary inflation necessitate a robust and adaptive claim management system. Addressing the identified issues in claim management practices can significantly improve project outcomes and resilience in the face of future crises.

3. Methodology

This study employed a mixed-methods research design, integrating quantitative and qualitative approaches to address the research objectives comprehensively. A mixed-method approach is particularly effective for investigating complex research problems, as it combines the depth of qualitative data with the broader generalizability of quantitative data, thereby providing a comprehensive understanding of the research subject (Gerzso & Riedl, 2024). As part of this research, the mixed-methods design facilitated identifying and prioritizing key issues in construction claim management through quantitative surveys, enabling the development of a clear hierarchy of challenges encountered by SMCs. Concurrently, qualitative expert interviews provided in-depth, context-specific insights, allowing for the formulation of tailored solutions that address the distinct conditions of Sri Lanka's construction industry. This integrative approach combined the statistical rigor of quantitative analysis with the contextual richness of qualitative findings, ensuring robust and applicable recommendations.

Quantitative data was collected using a structured questionnaire survey to identify and rank the types and causes of claims experienced by SMCs in Sri Lanka since the emergence of COVID-19. A snowball sampling method was used to reach a diverse respondent base. The survey captured the frequency and relative importance of different claim types and causes. Complementing the quantitative data, qualitative data was obtained through semi-structured interviews with industry experts. These interviews provided in-depth insights into the issues faced in current claim management practices, and strategies to overcome these issues. Purposeful sampling was employed to select participants based on their expertise and experience in claim management.

The Relative Importance Index (RII) method was employed to analyse the quantitative data, allowing for the ranking of claim types, causes, and related issues based on their frequency and perceived importance. This method provided a clear understanding of the most critical challenges in claim management. The RII values were calculated using the formula $RII = \sum W / (A * N)$, where W is the weight assigned to each factor, A is the highest weight, and N is the total number of respondents.

Qualitative data from the semi-structured interviews was analysed using content analysis, allowing for a detailed examination of the responses to identify key themes and patterns. This systematic approach ensured the research objectives were effectively met, providing a comprehensive understanding of the claim management practices among SMCs in Sri Lanka and proposing strategies to enhance these practices during exceptional events. The findings were validated through triangulation of data sources and methods,

ensuring the reliability and validity of the research results.

4. Findings and Discussion

The findings presented in this section are derived from a comprehensive data collection process involving experienced professionals in construction claim management and SMCs, gathered through the questionnaire survey, followed by semi-structured expert interviews.

4.1. Phase One: Questionnaire Survey

The first phase involved a questionnaire survey focusing on types of claims, causes for claims since the emergence of COVID-19, and the importance of effective claim management for SMCs in Sri Lanka. A total of 45 adequately filled questionnaires were returned out of those administered, achieving a response rate of 38%. The response rate of 38% is considered adequate given the severe financial crisis during the survey period, where many SMCs had halted operations or were facing extreme difficulties, making it challenging for the professionals associated with them to participate in non-essential activities like surveys within a limited time frame. This response rate aligns with similar studies conducted during economic crises. For example, a study on the impact of COVID-19 on SMEs in China reported a response rate of just 10.7%, yet statistically confirmed with no significant non-response bias within the sample (Du et al., 2022). The respondents included a range of professionals such as Quantity Surveyors, Senior Quantity Surveyors, Project Managers, Contract Administrators, Contract Managers, and Directors, with varied years of experience in the construction industry and claim management as illustrated in Table 3.

The survey primarily concentrated on professionals employed by SMCs despite the financial crisis, rather than those with only prior experience in SMCs. Consequently, the respondent profile itself reflected a significant challenge faced by SMCs in retaining staff amid ongoing skill emigration and competition with larger organizations, resulting in a composition predominantly of those with less than 10 years of experience.

4.1.1. Types of Claims and Their Frequency of Occurrence

Table 1: Respondents Profile of Questionnaire Survey

Profile	Questionnaire Surveys		
	Variables	**Number of Respondents**	**Percentage**
Designation of the Respondents	Quantity Surveyor	8	17.78 %
	Senior Quantity Surveyor	11	24.44 %
	Project Manager	5	11.11 %
	Contract Administrator	10	22.22 %
	Contract Manager	7	15.56 %
	Directors	4	8.89 %
Working Experience Of Respondents	Below 3 years	11	24.44 %
	3 to 6 years	14	31.11 %
	6 to 9 years	13	28.89 %
	10 years or more	7	15.56 %

Table 2: Types of Claims

No	Code	Types of Claims	RII	RANK
1	T1	Extension of Time (EOT) Claims	0.89	1
2	T2	Acceleration Claims	0.61	6
3	T3	Different site condition Claims	0.56	9
4	T4	Contract Termination Claims	0.60	7
5	T5	Force Majeure Claims	0.72	4
6	T6	Contract ambiguity Claims	0.58	8
7	T7	Loss of Productivity Claims	0.62	5
8	T8	Price Escalation Claims	0.85	2
9	T9	Disruption Claims	0.83	3
10	T10	Ex-Gratia Claims	0.55	10

The survey identified and ranked the types of claims submitted by SMCs using RII analysis as illustrated in Table 4.

The results indicate that "Extension of Time (EOT) Claims" were the most frequently submitted claims with an RII of 0.89. This high frequency can be attributed to the widespread project delays caused by the COVID-19 pandemic, which necessitated extensions of project timelines.

"Price Escalation Claims" were the second most frequent, with an RII of 0.85. The economic instability and high inflation rates during the pandemic significantly increased construction costs, making price escalation claims common. "Disruption Claims" followed closely with an RII of 0.83, reflecting the interruptions in construction activities due to lockdowns and other COVID-19-related restrictions.

Other notable claims included "Force Majeure Claims" (RII 0.72) and "Loss of Productivity Claims" (RII 0.62). These claims highlight the broader impact of the pandemic on construction productivity and the invocation of force majeure clauses due to unprecedented disruptions.

Conversely, "Ex-Gratia Claims" had the lowest RII of 0.55, indicating that employers rarely granted these claims to SMCs. The low frequency of ex-gratia claims suggests a reluctance from employers to provide additional compensation beyond contractual obligations.

Additional claims identified by respondents, not listed in the initial questionnaire, included "Loss of Overhead and Profit Claims," "Claims Related to Common Law," "Claims Related to Delayed Payments/Interest," "Variation Claims," and "Suspension Claims." These additional claims underline the varied nature of issues faced by SMCs during the pa

4.1.2. Causes of Claims

The survey also ranked the causes of claims using RII analysis as illustrated in Table 5.

Table 3: Causes of Claims

No	Code	Cause of claims	RII	RANK
1	C1	Material Shortage	0.86	1
2	C2	Contractor financial problems	0.80	5
3	C3	Changes in government regulations and laws	0.80	4
4	C4	Suspension of work	0.72	11
5	C5	Delay caused by contractor	0.73	10
6	C6	Difficulty in the delivery of construction materials	0.78	7
7	C7	Delay in payments by owner	0.79	6
8	C8	Unexpected changes in exchange, interest, and inflation rate	0.83	3
9	C9	Changes in material & labor costs	0.85	2
10	C10	Poor planning and management by contractor	0.66	14
11	C11	Idling plant and equipment	0.71	12
12	C12	Additional demurrages paid on transit of materials,	0.64	15
13	C13	Extended site preliminaries	0.76	9
14	C14	Variations	0.78	8
15	C15	Termination of works	0.64	16
16	C16	Specifications & drawings inconsistencies	0.58	18
17	C17	Design errors or omissions	0.56	19
18	C18	Change in sequence of work	0.67	13
19	C19	Discrepancies between contract documents	0.62	17

The most frequent cause was "Material Shortage" with an RII of 0.86. The pandemic disrupted supply chains globally, causing significant delays in the delivery of construction materials and leading to frequent claims related to material shortages.

"Changes in Material & Labor Costs" was the second most frequent cause with an RII of 0.85. The economic

instability during the pandemic led to sharp increases in material and labor costs, resulting in numerous claims for cost adjustments. "Unexpected Changes in Exchange, Interest, and Inflation Rates" followed closely with an RII of 0.83, highlighting the financial volatility experienced during this period.

Other significant causes included "Contractor Financial Problems" (RII 0.80), "Changes in Government Regulations and Laws" (RII 0.80), and "Delay in Payments by Owner" (RII 0.79). These causes reflect the broader economic challenges faced by SMCs during the pandemic, including financial strain, regulatory changes, and delays in receiving payments from project owners.

On the lower end of the scale, "Specifications & Drawings Inconsistencies" (RII 0.58) and "Design Errors or Omissions" (RII 0.56) were identified as less frequent causes of claims. These results suggest that while design and specification issues do occur, they were not as prevalent as other causes during the pandemic.

4.1.3. Quality of Existing Claim Management Practices

The survey results revealed significant dissatisfaction with the current claim management practices among SMCs in Sri Lanka as shown in Figure 1.

A substantial 49% of respondents rated the quality of existing claim management practices as "Poor," while 15% rated it as "Very Poor." Notably, no respondents rated the quality as "Excellent," indicating widespread recognition of deficiencies in current practices.

The dissatisfaction can be attributed to several factors. These include a lack of skilled staff, poor documentation practices, inadequate communication, and insufficient contractual knowledge. These issues are compounded by high staff turnover, which further hampers the ability of SMCs to manage claims effectively.

The high percentage of respondents rating the claim management practices as poor or very poor underscores the urgent need for improvements in this area. Addressing these deficiencies is critical to enhancing the ability of SMCs to navigate exceptional events such as the COVID-19 pandemic and to ensure fair compensation and project continuity.

4.2. Phase Two: Semi-Structured Expert Interviews

The second phase of data collection involved semi-structured interviews with industry experts to identify existing issues in the claim management practices of SMCs in Sri Lanka and to gather ideas for improving these practices. Eleven experts with extensive experience in the construction industry and claim management participated in these interviews. The

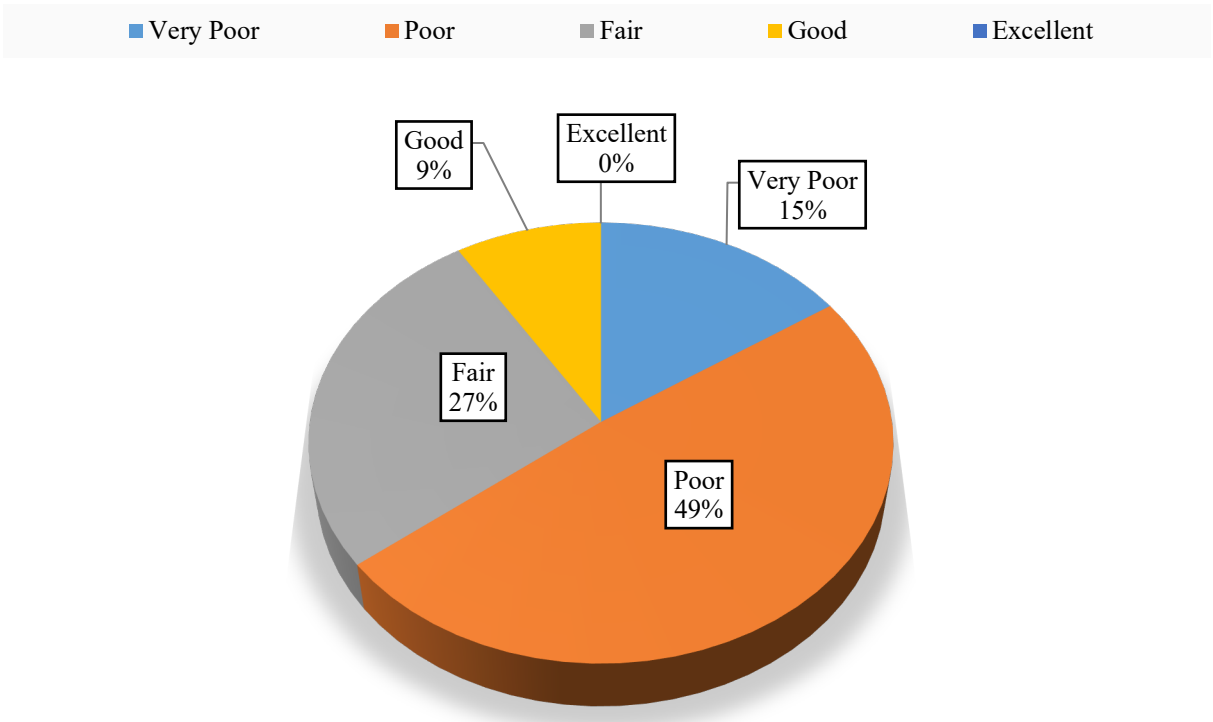

Figure 1: Quality of Existing Claim Management Practices

Table 4: Respondents Profile of Expert Interviews

Profile	Expert Interviews (E1 to E11)		
	Variables	**Number of Respondents**	**Percentage**
Designation of the Respondents	Managing Director	2	18.18 %
	Director	4	36.36 %
	Contract Administrator	4	36.36 %
	Senior Cost Manager	1	9.10 %
Industrial Working Experience Of Respondents	Below 10 years	1	9.10 %
	10 to 20 years	3	27.27 %
	20 to 30 years	2	18.18 %
	30 years or more	5	45.45%
Claim Management Experience	Below 10 years	3	27.27 %
	10 to 20 years	1	9.10 %
	20 to 30 years	5	45.45%
	30 years and more	2	18.18 %

participants in the qualitative interviews were selected using purposive sampling to ensure that only individuals with relevant expertise in construction claim management participated. This approach allowed us to engage with professionals who have direct experience with the issues faced by SMCs in Sri Lanka, ensuring the data gathered was highly relevant and insightful. The findings from these interviews provide a deeper understanding of the deficiencies in current practices and suggest practical recommendations for improvement. The profile summary of respondents who participated in the expert interviews is presented in Table 6.

The expert panel consisted primarily of senior-level professionals, with extensive industry experience, where 63.63% had over 20 years of experience in both the construction industry and claim management.

4.2.1. Issues in Claim Management Practices in Sri Lanka

The study conducted on SMCs in Sri Lanka reveals significant challenges across various stages of the claim management process, including Claim Identification, Claim Notification, Claim Substantiation, Claim Documentation, Claim Presentation, and Claim Negotiation.

4.2.1.1. Claim Identification

Claim identification entails "timely" and "accurate" identification of a construction claim (Kululanga et al., 2001). One of the most significant challenges identified in the claim identification stage is the failure to interpret contract terms and conditions accurately. According to most respondents (E1, E3, E5–E11), this issue is particularly critical for SMCs, often preventing them from submitting eligible claims. This challenge was highlighted as a result of a major issue resulting from lack of knowledge and the fear of damaging relationships with employers (E1, E3, E5-E11). This finding aligns well with Banwo et al. (2015) who discovered that inadequate knowledge and fear among staff during contracts executions as the common causes of contractual terms and conditions misinterpretation.

Further, the study results attribute failure to identify claims due to the lack of awareness among site staff resulting from insufficient training in claim identification (E7, E8, E10, E11). Most respondents attributed this issue to hiring unqualified claim detectors to save money (E8, E10, E11). Our study results are in line with Bakhary et al. (2015) who discovered that lack of qualified staff, awareness and training among staff always impede claim identification during contract executions. Finally, ambiguous responsibility and procedures were also cited as an issue that led to failure to identify claims (E7, E8, E10, E11).

4.2.1.2. Claim Notification

Construction claims notification entails notifying or alerting the other party of a potential claim in a non-adversarial manner (Sawyer & Gillott, 1990). Our results revealed claim notification as a challenge faced during execution of construction projects in Malaysia leading to extension of project execution time and high workload (E9, E10). Several respondents (E1-E4, E7, E8, E11) reported that site personnel and the head office had trouble communicating project information, changes owing to improper channels leading to staff ignoring mandatory project deadlines

4.2.1.3. Claim Substantiation

Claim substantiation involves establishing the legal and factual grounds on which the claim is to be based (Kululanga et al., 2001). The claim substantiation stage revealed several critical issues, including the unavailability of records, with most respondents (E4) noting poor record-keeping as a significant problem. This is also identified as a major issue during claim substantiation in the Malaysian construction industry (Bakhary et al., 2015). The failure to establish contractual or legal grounds for claims was also emphasized by many respondents, who attributed this

to a lack of competence among staff. Problems with claim quantification were recognized by some respondents, while others found it manageable.

Inadequate time to thoroughly perform claim examination due to high workload was highlighted by E5, E6 and E7, though others disagreed, arguing that it is the contractor's responsibility to meet deadlines. The insufficiency of computerized machines for facilitating calculations was noted by some respondents, although others deemed it non-essential. A lack of knowledge among staff in delay analysis was strongly highlighted, with many respondents pointing out the absence of training and reluctance to invest in necessary software as major contributing factors.

4.2.1.4. Claim Documentation

In the claim documentation stage, ineffective record-keeping was identified as a significant issue by almost all respondents, who emphasized the need for proper documentation once a notice is issued to the Engineer. The documented facts are the glue that holds the legal framework together and the claim will be rejected if these hard facts are inadequate or unsatisfactory (Kululanga et al., 2001). The inaccuracy of recorded information was similarly highlighted. The absence of a proper computerized documentation system was debated, with some respondents finding manual systems sufficient and others advocating for computerized records. The inaccessibility of documents due to high staff turnover and restricted access to confidential data was also noted as a problem.

The failure to CVI was seen by many respondents as a critical issue, though some disagreed, viewing it as a contractor's responsibility. In the case of the quantitative study on ranking the issues in claim management practices in the Malaysian construction industry, this is identified as the most prominent one during the claim documentation (Bakhary et al., 2015). Poor records and documentation to support claims were highlighted by most respondents, who noted that the recent outsourcing of claim experts has begun to address this issue.

4.2.1.5. Claim Presentation

The claim presentation stage revealed issues such as the absence of a standard format for claim submission, with respondents noting that this complicates the preparation process. Some argued for the necessity of a flexible approach based on claim type. Poor documentation quality, often due to inadequate language skills, was also highlighted by many respondents. Additionally, difficulties in understanding presentation reports were attributed to poor language use, though some found claims generally understandable.

4.2.1.6. Claim Negotiation

Based on a study conducted by Zaneldin (2006), negotiation is used to settle 77% of construction claims in the United Arab Emirates (UAE). In the claim negotiation stage, disagreements during negotiations were noted by many respondents as a prevalent issue, often stemming from both the contractor and employer sides same. Inadequate or unsatisfactory evidence to support claims was also highlighted, with many respondents emphasizing the lack of sufficient evidence as a significant problem. Clear evidence is required for the defendant to comprehend and subsequently accept the claim submission (Hansen & Rostiyanti, 2019). Poor negotiation skills were universally agreed upon as an issue, attributed to inadequate contractual knowledge among staff.

Adversarial relationships with other parties were discussed, with respondents noting contractors' reluctance to take adversarial stands due to fear of future job repercussions. The issue of inadequate time for good negotiation was debated, with some respondents citing workload pressures and others disagreeing. Difficulty in settling without litigation or arbitration was noted by some respondents, who highlighted the tendency to avoid litigation due to its high costs, preferring amicable settlements.

4.2.1.7. Additional Issues

Several additional issues were identified, including the ignorance of site staff in recognizing claim events, poor use of language, lack of proper administration, poor coordination between the site and head office, and reluctance to complete the full claim management process due to cost and time constraints. High staff turnover, poor use of IT in claim management, and financial constraints were also noted as critical barriers.

4.2.2. Strategies to overcome the existing SMCs' claim management practice

Figure 2 depicts the overview of the strategies to overcome the existing SMCs' claim management practice. As per the findings and issues identified through expert interviews, the main problem in the SMCs' existing claim management is the failure to interpret contract terms and conditions and the inability to recognize claim events. To overcome this challenge E4 highlighted that SMCs need to employ key staff with expertise or adequate knowledge in contract administration and a deep understanding of all the clauses in the respective form of contract. Key staff with these skills could be Quantity Surveyors or Project Managers involved in the particular project, tasked with monitoring the project from the beginning to adopt a proper mechanism according to the contract conditions. This can improve claim management by early identification of claim events and timely notification, enhancing overall awareness.

Effective management of construction claims requires a sound understanding of their causes in relation to the contractual terms underpinning such claims (Hansen &

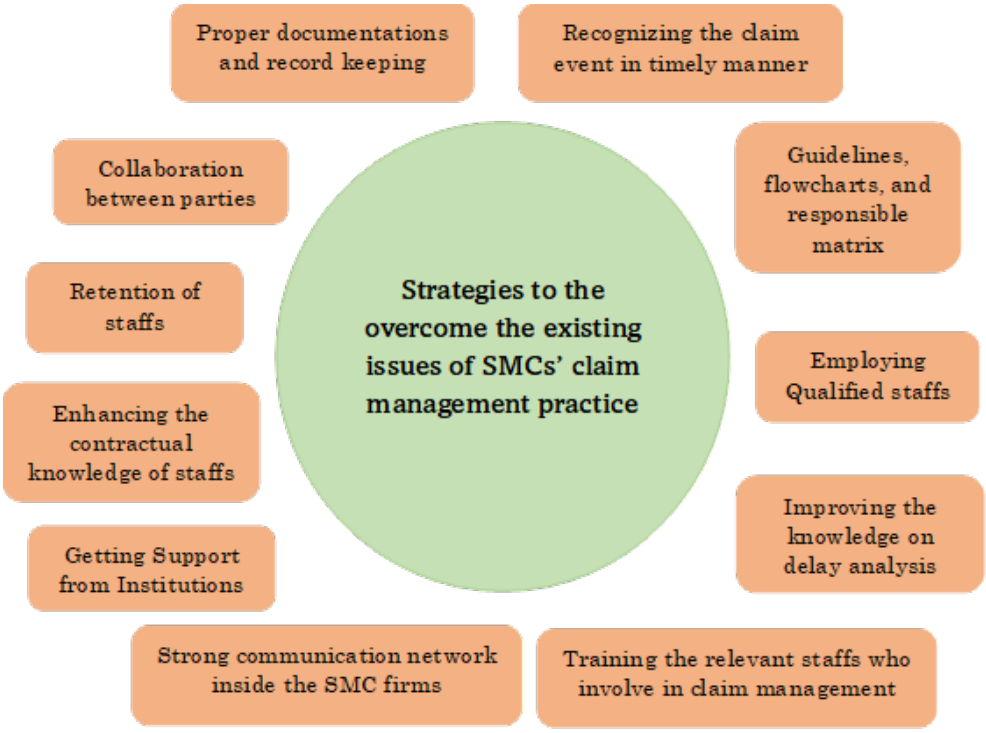

Figure 2: Strategies to overcome the issues in existing SMCs' claim management practice

Rostiyanti, 2019). Our results revealed that stated that one of the main issues for SMCs is the lack of contractual knowledge among staff. Therefore, to overcome such challenges, respondents (E1 and E3) advise project executioners to enhance the contractual knowledge of existing staff rather than hiring a third party or a claims specialist. This is also emphasized in the study by Lew et al. (2013), as the people process is more crucial than the strategy or operational process towards construction claims management.

It was also reported that in SMCs, most staff do not have a proper understanding of the contract itself. It was reported (E5) that most SMCs sign contracts without thoroughly reading them yet once claims occur, they need to refer to them. During the construction phase, the staff responsible for claims might have thought some events were claim events but could not submit the claims because the conditions of the contract were unfavourable, as they had interpreted before reading the clauses properly. E5 recommends that to overcome such future challenges, staff involved in signing and negotiating these contracts and claims need to thoroughly read and understand all the applicable clauses before signing the contract to have a good understanding of the terms and conditions during the contract.

Further it was recommended that (E6) that at least one key staff member with expertise in contract administration needs to be employed in SMC firms. This expert should explain or conduct workshops for the site staff on claim management, including how to identify claims, notify them, and what records need to be maintained. In this regard, Bakhary et al. (2020), codified the important role of the training programs provided by the professional organizations on enhancing the skill of staff in this aspect, which may be more crucial for SMCs without many high-skilled staff. Additionally, SMCs need to manage their claims with subcontractors and suppliers. Hence, E6 suggests that having a claim management framework within the company would assist in managing claims. E7 criticized that staff in SMCs do not have much awareness of contracts and are not clear about the claim procedures specified in the contract. This can be improved through awareness programs run by Sri Lankan construction regulatory bodies or relevant institutes to improve their chances of succeeding in claims.

SMCs need to keep track of written records, images, emails, paper notices, articles, and circulars. E4 highlighted that this needs to be compiled from day one of the project, which could improve the success rate of claims. The study conducted by Bakhary et al. (2020), also emphasized this as one of the important strategies towards successful claim management in construction projects. With current technology, it is easier to keep updating these records compared to the past days of the Sri Lankan construction industry. E6 emphasized the importance of site records, whether needed for claims or not; they should be maintained properly so that any required information can be easily extracted from the

site records. Therefore, staff should not skip standard practices that need to be done on-site.

E5 emphasized the importance of maintaining records and correspondences in improving the existing claim management practice. These items are essential when preparing a claim. Getting timely CVI needs to be practiced by SMCs because, during claim preparation, contractors might say instructions were given by the engineer, but there is no CVI to prove it. Thus, it is important to get the CVI in a timely manner to substantiate the claim. Additionally, E5 believes that maintaining a separate documentation system for variations could improve the SMCs' existing claim management process because variations often lead to claims in the construction sector. When an engineer issues a variation order, it might disrupt the contractor's workflow, likely causing a delay that leads to a claim. Therefore, a separate system is required to monitor and manage variations.

E10 stated that whether manual or computerized, all bookkeeping needs to be systematic and accessible. E10 also said that contemporary records must be maintained properly on-site. E9 added that all site records should be recorded and maintained properly, whether useful for substantiating a claim or not, and site staff must comply with this task. E11 and E3 believe that digitized record-keeping through a cloud-based system would enhance existing claim documentation practices. E3 suggested that implementing BIM (Building Information Modelling) and integrated Project Delivery (IPD), in line with the proposal by Lew et al. (2013), in future projects would significantly ease the claim management process.

5. Conclusion

This study examined claim management practices among SMCs in Sri Lanka during exceptional events such as the COVID-19 pandemic and periods of extraordinary inflation. It addressed a novel area of research by focusing on the unique challenges faced by This study examined claim management practices among SMCs in Sri Lanka during exceptional events

This study examined claim management practices among SMCs in Sri Lanka during exceptional events such as the COVID-19 pandemic and periods of extraordinary inflation. It addressed a novel area of research by focusing on the unique challenges faced by SMCs in managing claims during crises. The study identified major causes of claims through a literature review and validated them using questionnaire surveys specific to the Sri Lankan context amidst financial crises. Key causes included material shortages, changes in material and labor costs, fluctuations in exchange rates, interest rates, and inflation, contractor financial problems, changes in government regulations and laws, and delays in payments by owners.

The research further revealed several deficiencies in current claim management practices through quantitative and qualitative data analysis. Key issues included a lack of skilled staff, inadequate documentation, poor communication, and insufficient contractual knowledge across all stages of the claim management process—identification, notification, substantiation, documentation, presentation, and negotiation. To address these issues, practical and context-specific strategies were developed based on semi-structured expert interviews. These strategies include employing and retaining qualified staff, enhancing contractual knowledge through training, developing internal communication systems, promoting collaboration, and implementing robust documentation and record-keeping systems.

While this study contributes to a previously underexplored area, particularly concerning SMCs' claim management practices during crises, it has certain limitations. The findings are context-specific to Sri Lanka, and the limited availability of prior studies on SMCs during exceptional events posed challenges for direct comparisons. However, the use of expert insights and empirical data ensured a robust investigation. Future research can build upon this work by exploring claim management practices in other regions. Such studies can refine and validate the proposed strategies, advancing the understanding and application of claim management strategies in diverse contexts.

References

Aceris Law LLC. (2020, April 3). COVID-19 and Construction Disputes: Claims for Time and Money.AcerisLaw. https://www.acerislaw.com/covid-19-and-construction-disputes-claims-for-time-and-money/

Agwu, M. O. (2014). Issues, Challenges and Prospects of Small and Medium Scale Enterprises (SMEs) in Port-Harcourt City, European Journal of Sustainable Development, 3(1), 101–114. https://doi.org/10.14207/ejsd.2014.v3n1p101

Ahiawodzi, A. K., and Adade, T. C. (2012). Access to Credit and Growth of Small and Medium Scale Enterprises in the Ho Municipality of Ghana. British Journal of Economics, Finance and Management Sciences, 6(2).

Al-Qershi, M. T., and Kishore, R. (2017). Claim Causes and Types in Indian Construction Industry-Contractor's Perspective. American Journal of Civil Engineering and Architecture, 5(5), 196–203. https://doi.org/10.12691/ajcea-5-5-3

Apte, B., and Pathak, S. (2016). Review of Types and Causes of Construction Claims. International Journal of Research in Civil Engineering, 4(2), 43–50. www.iaster.com

Asuquo, C. F., Udo, I. E., and Otali, M. (2020). A Conceptual Framework for Managing Construction Claims in the Face of the COVID-19 Pandemic in Nigeria. International Journal of Real Estate Studies. www.utm.my/intrest

Bakhary, N. A., Adnan, H., and Ibrahim, A. (2015). A Study of Construction Claim Management Problems in Malaysia. Procedia Economics and Finance, 23, 63–70. https://doi.org/10.1016/s2212-5671(15)00327-5

Bakhary, N. A., Adnan, H., Ibrahim, A., & Ismail, W. N. W. (2020). Strategies towards a successful claim management in construction projects. *Malaysian construction research journal (MCRJ)*, 212.

Banwo, O., Parker, K. and Sagoo, A. (2015). Principles of contract claims management - A review of the Nigerian construction industry. International Conference on Industrial Engineering and Operations Management (IEOM), 1-9. IEEE. https://doi.org/10.1109/IEOM.2015.7093726

CIOB. (2021, November 1). Price fluctuation in construction contracts and impact on cash flow of contractors. DailyFT. https://www.ft.lk/front-page/Price-fluctuation-in-construction-contracts-and-impact-on-cash-flow-of-contractors/44-725195

Chen, J. J. (1998). The characteristics and current status of China's construction industry. Construction Management and Economics, 16(6), 711–719. https://doi.org/10.1080/014461998372006

Du, L., Razzaq, A. and Waqas, M., 2022. The impact of COVID-19 on small-and medium-sized enterprises (SMEs): empirical evidence for green economic implications. Environmental Science and Pollution Research International, 30(1), p.1540. https://doi.org/10.1007/s11356-022-22221-7

EL-Ghrory, A., bin Tahir, Md. N. H., and Ismail, N. B. (2019). Claim management framework under FIDIC 2017: Contractor Claim submission. Humanities & Social Sciences Reviews, 7(1), 385–394. https://doi.org/10.18510/hssr.2019.7145

El-Wakel, E. (2006). Developing computerized construction claims decision support system to raise ability of construction management team against claims [M.Sc. Thesis].

Enshassi, A., Mohamed, S., and El-Ghandour, S. (2009). Problems associated with the process of claim management in Palestine: Contractors' perspective. Engineering, Construction and Architectural Management, 16(1), 61–72. https://doi.org/10.1108/09699980910927895

FIDIC. (2017). Conditions of Contract for Construction (2nd ed.). FIDIC.

Gamil, Y., Al-Sarafi, A. H., and Najeh, T. (2022). Post COVID-19 pandemic possible business continuity strategies for construction industry revival a preliminary study in the Malaysian construction industry. International Journal of Disaster Resilience in the Built Environment.

Gerzso, T. and Riedl, R.B., 2024. The Potential of Mixed Methods for Qualitative Research. *Doing Good Qualitative Research*, p.72.

Handayani, F. S. (2017). Strategy for Small-medium Scale Contractor Performance Improvement in ASEAN Competitive Market. Procedia Engineering,171,387–395. https://doi.org/10.1016/j.proeng.2017.01.348

Hansen, S., and Rostiyanti, S. F. (2019). Indonesian Contractor Professionals' Perception on Problems in Construction Claim Management. Malaysian Construction Research Journal, 27(1), 69–95.

Hayati, K., Latief, Y., and Rarasati, A. D. (2019). Causes and Problem Identification in Construction Claim Management. IOP Conference Series: Materials Science and Engineering, 469(1). https://doi.org/10.1088/1757-899X/469/1/012082

Hosseini, M. R., Banihashemi, S., Chileshe, N., Namzadi, M. O., Udaeja, C., Rameezdeen, R., and McCuen, T. (2016). BIM adoption within Australian small and medium-sized enterprises (SMEs): An innovation diffusion model. Construction Economics and Building, 16(3), 71–86. https://doi.org/10.5130/AJCEB.v16i3.5159

Jayasanka, K., Disaratna, P. A. P. V. D. S., and Perera, B. A. K. S. (2021). A Construction Claim Procedure to Safeguard the Contractors' Contractual Entitlements. Bhúmi, The Planning Research Journal,8(2),52. https://doi.org/http://doi.org/10.4038/bhumi.v8i2.79

Kululanga, G. K., Kuotcha, W., Mccaffer, R., and Edum-Fotwe, F. (2001). Construction contractors' claim process framework. Journal of Construction Engineering and Management, 127(4), 309–314. https://doi.org/https://doi.org/10.1061/(ASCE)0733-9364(2001)127:4(309)

Lew, L. P., Tan, H. C., and Wong, S. M. (2013). Issues and challenges faced in the management of claims for construction projects.

Likhitkar, S.S. (2022). Types and Causes of Construction Claims-A Review. International Journal of Research in Engineering and Science (IJRES) ISSN, 10(4), 27–32. www.ijres.org

Mishmish, M., and El-Sayegh, S. M. (2018). Causes of claims in road construction projects in the UAE. International Journal of Construction Management, 18(1),26–33. https://doi.org/10.1080/15623599.2016.1230959

Nor Azmi, B., Hamimah, A., and Azmi, I. (2018). Construction claims problems in Malaysia: From the contractors' perspective. MATEC Web of Conferences, 192. https://doi.org/10.1051/matecconf/201819202004

Ofori, G. (1993). Research on construction industry development at the crossroads. Construction Management an Economics, 11, 175–185.

Oghenekevwe, O., Olusola, O., and Chukwudi, U. S. (2014). An assessment of the impact of Inflation on construction material prices in Nigeria. III(IV). www.pmworldlibrary.net

Oke, A.E., Pelumi, A., Adetoro, S.S., Aigbavboa, C.A., Oyewobi, L.O. and Aghimien, D. 2023. General Introduction. *Risk Management Practices in Construction*, 3-6.

Oyediran, S. O. (2006, November). Modeling Inflation Dynamics in the Construction Sector of a Developing Economy. TS 28 – Construction Economics I.

Piyumra, R. and Disaratna, P. 2023. Application of experiential knowledge and personal constructs into construction claims management. *Proceedings of the 11th World Construction Symposium*. 21-22 July 2023. Sri Lanka: [Online]. 224-236. https://doi.org/10.31705/WCS.2023.19.

Pongpeng, J., and Liston, J. (2003). Constractor ability criteria: A view from the Thai construction industry. Construction Management and Economics, 21(3), 267–282. https://doi.org/10.1080/0144619032000049647

Ranadewa, K. A. T. O., Sandanayake, Y. G., and Siriwardena, M. (2018). A SWOT Analysis for Sri Lankan Construction SMEs. In Y. G. Sandanayake, S. Gunatilake, & W. A. G. S. Waidyasekara (Eds.), The 7th World Construction Symposium 2018: Built Asset Sustainability: Rethinking Design, Construction and Operations (pp. 1–12). Building Economics and Management Research Unit (BEMRU). https://www.researchgate.net/publication/326083084

Reta, A., Bassa, M., and Alyew, A. (2019). Evaluation of causes of Claims on construction projects of Southern Nation Nationality and People Region (SNNPR), Ethiopia. IJERT Journal International Journal of Engineering Research and Technology, 8(12). https://doi.org/10.17577/IJERTV8IS120059

Sawyer, J. G., & Gillott, C. A. (Cyril A. (1990). The FIDIC digest: Contractual relationships, responsibilities and claims under the fourth edition of the FIDIC conditions. Thomas Telford Ltd

Shah, A., Scholar, P., Bhatt, R., Bhavsar, J. J., and Co-Ordinater, P. (2014). Types and Causes of Construction Claims. International Journal of Engineering Research & Technology (IJERT), 3(12). www.ijert.org

Shaikh, H. H., Zainun, N. Y., and Khahro, S. H. (2020). Claims in Construction Projects: A Comprehensive Literature Review. IOP Conference Series: Earth and Environmental Science, 498(1). https://doi.org/10.1088/1755-1315/498/1/012095

Shaughnessy, W. J., Underwood, W. E., and Cazenave, C. (2020). COVID-19's Impact on Construction: Is There a Remedy? Time Extension, Force Majeure, or More? The National Law Review, X(301). https://www.natlawreview.com/article/covid-19-s-impact-construction-there-remedy-time-extension-force-majeure-or-more

Sibanyama, G., Muya, M., and Kaliba, C. (2012). An overview of construction claims: A case study of the Zambian construction industry. In International Journal of Construction Management (Vol. 12, Issue 1, pp. 65–81). Chinese Research Institute of Construction Management. https://doi.org/10.1080/15623599.2012.10773185

Ssegawa, J. K., and Keakile, S. (2023). Analyzing the nature of contractor claims and strategies for their effective management: A case of Buildserve in Botswana. *Procedia Computer Science*, *219*, 1814–1822.

Taofeeq, D. M., Adeleke, A. Q., and Hassan, A. K. (2019). Factors Affecting Contractor's Risk Attitude from Malaysia Construction Industry Perspective. Social Science and Humanities Journal SSHJ, 03(06). http://sshj.in/index.php/sshj/

Tezel, A., Taggart, M., Koskela, L., Tzortzopoulos, P., Hanahoe, J., and Kelly, M. (2020). Lean construction and BIM in small and medium-sized enterprises (SMEs) in construction: a systematic literature review. Canadian Journal of Civil Engineering, 47(2), 186–201. https://doi.org/doi:10.1139/cjce-2018-0408

Tochaiwat, K., and Chovichien, V. (2004). Contractors' Construction Claims and Claim Management Process. Published in Research and Development Journal, 15(4), 66–73.

https://www.researchgate.net/publication/215908277

Umar, M. O., and Ochigbo, A. D. (2024). Comprehensive approach to claim assessment in construction projects. *International Journal of Management & Entrepreneurship Research*, *6*(7), 2201–2225.

Vithana, N., Bandara, K. and Jayasooriya, S. 2020. Impact of Covid-19 pandemic on the construction industry in Sri Lanka. *Proceedings of the 13th International Research Conference on Built Environment & Spatial Sciences*. October 2020.

Ye, K., and Tekka, R. S. (2020). A Prioritization Model of Strategies for Small and Medium Firms in Less-Developed Countries: A Tanzania Case. Advances in Civil Engineering, 2020(1), 8857741.

Zaneldin, E. K. (2006). Construction claims in United Arab Emirates: Types, causes, and frequency. International Journal of Project Management, 24(5), 453–459. https://doi.org/10.1016/j.ijproman.2006.02.006

Zaneldin, E. K. (2020). Investigating the types, causes and severity of claims in construction projects in the UAE. International Journal of Construction Management, 20(5), 385–401. https://doi.org/10.1080/15623599.2018.1484863

Appendix 1

Table 5: Causes of Claims

Causes of claims	**References**
Employer/ Employer's representative related factors	
Delay caused by owner	[2]
Delay in payment	[1],[2],[3],[4],[6], [7]
Change of client`s requirement	[1],[5]
Owner's financial difficulties to fund the project	[1]
Site possession with obstacles (license, land occupation, etc.)	[6]
Delay in handing over the site.	[3], [7]
Continuous change orders by the owner	[6],[7]
Change/Variation orders	[2],[3],[4],[5],[6]
Oral change order (failure to give written instruction)	[1],[2]
Late issue of instruction	[3]
Slow decision making	[6]
Delay in approval of completed work	[7]
Acceleration of works	[3],[7]
Delays of shop drawings approval by owner’s representative	[7]
Contractor related factors	
The delay caused by the contractor	[1],[2],[3],[7]
Re-work due to design errors by the contractor	
Poor planning and management by the contractor	[1], [2],[4],[6],[7]
Contractor financial problem	[2], [7]
Poor quality of contractor’s work	[2],[3],[7]
Estimating errors	[5]
Inadequate site investigation	[3]
External factors	
Volatility of construction materials prices in local markets	[2],[5], [6], [7]
Force majeure	[2],[6],[7]
Difficulty in the delivery of construction materials	[6],[7]
Extreme weather conditions	[4],[6],[7]
Third-party interference	[3], [7]
Changes in government regulations and laws	[2],[5],[6],[7]
Changes arising out of statutory, local authority sources	[5],[7]
Unforeseen ground conditions	[3],[4],[6]
Contract documents related factors	
Poorly written contracts and ambiguities	[1], [2],[3],[6],[7]
Inadequate contract documentation	[1],[5]
Variations between estimated and actual quantities	[1],[2],[3]
Specifications and drawing inconsistencies	[2],[3],[4],[5]
Design errors or omissions	[2],[4]
Discrepancies between contract documents	[1],[6]
Contractual relationship-related factors	
Parties are generally more aware of their rights and relatively more litigious.	[5]
Lack of coordination and communication among parties	[1],[2],[6],[7]
Awarding bid to the lowest bidder	[5],[6],[7]

Causes of claims	References
Termination of contract by one party	[2],[6],[7]
Suspension of work by one party	[2],[6],[7]
Insufficient time for bid preparation and inadequate investigation before bidding	[5],[7]
Project related factors	
Change the scope of the project.	[7]
Different subgrade condition	[7]
Complex execution of the project	[7]
Issues of change in site location or conditions	[6],[7]
[1] (Reta et al., 2019), [2] (Zaneldin, 2020), [3] (Mishmish & El-Sayegh, 2018), [4] (Shaikh et al., 2020), [5] (Hayati et al., 2019), [6] (Enshassi et al., 2009), [7] (Al-Qershi & Kishore, 2017)	

Table 6: Issues in the Claim Management Process

Stages	Issues in the Claim Management Process	Reference
Claim identification	Lack of awareness of site staff to detect a claim	[1], [3] [4] [5], [6]
	Lack of skilled staff for detecting construction claim	[1], [2], [3], [4] [5], [6]
	Ambiguous responsibility and procedures	[1],[4], [5], [6]
	Inadequate time due to high workload	[1], [3], [4], [5], [6]
	Failure to interpret contract terms and conditions	[1], [2], [3], [4],[5], [6]
Claim notification	Failure to comply with claim notification procedures	[1], [3], [4], [5], [6]
	No standard form is used for preparing the notice	[1], [3], [4], [5], [6]
	Inadequate time to thoroughly prepare the notice due to high workload	[1], [3], [4], [5], [6]
	Poor communication/instruction to proceed with submitting the notice	[1], [3], [4], [5], [6]
Claim Substantiation	Unavailability of records used to analyze and estimate the potential recovery	[1], [3], [4], [5]
	Failure to establish legal/Contractual grounds for claims	[1], [2], [3], [4], [5]
	Problem with quantification of claims	[1], [3], [4], [5]
	Lack of knowledge for staff in delay analysis	[1], [3], [4], [5]
	Inadequate time to thoroughly examine due to high workload	[1], [3], [4], [5]
	Insufficient computerized machine to facilitate the calculation	[1], [3], [4], [5]
Claim Documentation	Failure in Confirmation of Verbal Instruction (CVI)	[1], [3], [5], [6]
	Ineffective record-keeping system	[1], [3], [4], [5], [6]
	Inaccurate recorded information	[1], [2], [3], [4], [5], [6]
	Poor records and documentation to support claims.	[1], [6]
	No standard form used to record project activities	[1], [3], [4], [5], [6]

Stages	Issues in the Claim Management Process	Reference
	Inaccessibility or unavailability of documents when needed	[1], [4], [5], [6]
	No proper computerized documentation system	[1], [3], [5], [6]
Claim Presentation	No standard format for a claim submission	[1], [3], [4], [5], [6]
	Inaccessibility of relevant documents to submit along with the claim	[1], [3], [4], [5], [6]
	The presentation/report made is difficult to understand	[2], [6]
Claim Negotiation	Disagreements arise during negotiations.	[1], [2], [3], [4], [5]
	Inadequate or unsatisfactory evidence to convince other parties	[1], [3], [4], [5], [6]
	Poor negotiation skills	[1], [2], [3], [4], [5] [6]
	Adversarial relationships with other parties	[1], [3], [4], [5]
	Inadequate time due to a high workload for good negotiation	[1], [3], [4], [5], [6]
	Difficulty in settling without any litigation or arbitration	[1], [2], [3], [4], [5], [6]
	There is a tendency to protect own interest	[6]

[1] (Enshassi et al., 2009), [2] (Asuquo et al., 2020), [3] (Hayati et al., 2019), [4] (Nor Azmi et al., 2018), [5] (Bakhary et al., 2015), [6] (Hansen & Rostiyanti, 2019)