

THE IMPACT OF THE DEPLETION OF FOREIGN CURRENCY RESERVES ON THE SRI LANKAN CONSTRUCTION INDUSTRY

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ABSTRACT

The construction industry is highly diverse and interconnects with many other industries. The industry generated job opportunities to many and a significant economic multiplier. However, it was observed that an economic change in the country affects the industry adversely. The depletion of foreign currency reserves has significantly impacted Sri Lanka's construction industry in the recent past, from 2019 to date. Many stakeholders are currently encountering many issues, and as a result, many construction projects are in temporary shutdown. This study aimed to investigate the impact of foreign currency depletion on the Sri Lankan construction industry. The data collected from 15 semi-structured interviews conducted among professionals from the construction industry who work under contractors and professionals from the finance industry who are involved in the economic sector. A detailed literature study was undertaken to determine the causes and effects of the depletion of foreign reserves and qualitative semi-structured interviews were used to identify the positive and negative effects of the depletion of foreign currency on the construction industry. As a result, the findings featured results such as financial issues, unemployment, and frequent price escalation as severe impacts on the industry. The discussion also highlighted the strategies which are already imposed and suggested by the government and construction organisations. It included, implementing more foreign-funded projects, outsourcing new contracting or consulting overseas projects and expanding the export industry. Finally, the paper reveals the possible remedial strategies to minimise the impact of foreign currency depletion in the future.

Keywords: Depletion; Economic Crisis; Foreign Currency Reserves; Impact; Sri Lankan Construction Industry.

1. INTRODUCTION

A financial crisis occurs when financial institutions or assets suddenly lose a major portion of their value. The world's financial crises date back to 1819, when the United States of America had a serious financial crisis (Hemachandra, 2012). Financial crises can generally be divided into multiple types, including currency, banking, domestic debt, external debt, inflation, and capital market crises (Hlaing & Kakinaka, 2018). A financial crisis can impact a country's macroeconomy, leading to global financial crises. As the

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crisis worsens and spreads rapidly, it affects the entire economy, transforming it into an economic crisis. The term "economic crisis" refers to a wide range of scenarios in which some financial institutions or assets lose a significant portion of their value (Shibly, 2013). Sri Lanka's economic crisis began due to interconnected factors like tax cuts, money creation, organic farming, Easter bombings, and COVID-19's impact (George et al., 2022).

International reserves, also known as foreign exchange reserves, are a country's external assets, including gold, Special Drawing Rights (SDR), foreign currency deposits, and bonds (Kashif et al., 2017). This is also known as forex reserves or FX reserves (Chowdhury et al., 2014). These reserves are typically held in the form of government bonds, treasury bills, and other financial instruments denominated in foreign currencies. Foreign reserves are crucial for a country's economy, maintaining exchange rate stability, resilience against external shocks, speculative attacks, liquidity, monetary policy support, and attracting foreign investments (Kashif et al., 2017). Chowdhury et al., (2014) as cited in Batten (1982) identified four key factors for reserve keeping include international payments variability, import proclivity, opportunity cost of retaining reserves, and transaction size scale variable. Foreign reserves are a crucial indicator of a country's economic strength and stability, with high reserves indicating better ability to weather downturns and maintain financial stability. Thus, having large foreign exchange reserves is generally desirable and beneficial (Chowdhury et al., 2014).

Sri Lanka's industries face severe circumstances due to rapidly decreasing foreign reserves. Foreign exchange reserves impacted by imports, exchange rate volatility, debt, opportunity cost. (Kashif et al., 2017). Poor foreign exchange liquidity in Sri Lanka's banking system contributed to the current financial crisis. The Central Bank of Sri Lanka (CBSL) imposed surrender requirements on export revenues to secure adequate foreign exchange liquidity, causing shortages of essential commodities like fuel and food. This led to a decline in foreign reserves and a need for a more stable banking system. Key imports, including fuel, food, fuel, pharmaceuticals, and cement, are experiencing shortages due to the pandemic (Sharma, 2022). Sri Lanka's economy faces significant impacts from financial crisis and COVID-19 pandemic (Sharma, 2022).

Factors like poor initial estimation, financial issues, changes, lack of experience, conflicts, target cost, technical, political, natural, schedule variance, and compressing schedules in construction projects significantly impact during crisis times. This behaviour is also observed when foreign currency reserves deplete (Islam & Islam, 2020). Thus, Sri Lanka's construction industry faces significant setbacks due to financial and economic crises, government restrictions, and the depletion of foreign currency reserves. The industry faces immense impacts on import expenses and a lack of foreign currency reserves. Contactors, clients, investors, and consultancies were directly and indirectly affected by such impositions. Nevertheless, no existing research explores the nature and magnitude of the impact of the depletion of foreign currency reserves on the Sri Lankan construction industry.

Therefore, this study aimed to identify and analyse the impact of the depletion of foreign currency reserves on the Sri Lankan construction industry. In order to pursue the aim of the study, a few research objectives were developed, namely: (1) to review the current economic crisis evolving in Sri Lanka and its implications for foreign currency reserves in Sri Lanka, (2) to identify and analyse the challenges and problems faced by the Sri

Lankan construction industry due to the depletion of foreign currency reserves in the country, and (3) to determine the ways and means to overcome the challenges and problems faced by the Sri Lankan construction industry due to the depletion of foreign currency reserves in the country.

2. LITERATURE REVIEW

2.1 AN OVERVIEW OF MULTIFACETED CRISES IN THE WORLD AND THE EVOLUTION AND CAUSES OF THE ONGOING MULTIFACED CRISIS IN SRI LANKA

According to Canyon (2020), a crisis is "*an uncertain situation possessing latent risks and opportunities that must be resolved within a given timeframe*". Similarly, the Babcock Gove & Merriam-Webster (2008) dictionary identifies the word "crisis" as "*an unstable or crucial time or state of affairs in which a decisive change is impending*". An economic crisis represents a situation in which the economy of a country passes through a sudden decrease in force, a decrease usually brought about by a financial crisis. The economic crisis may take the form of stagflation, a recession, or an economic depression (Cazan & Cucos, 2013). For example, in 2001, the Turkish government faced a severe crisis, of which the main cause was a combination of both the fragile banking sector and poor macroeconomic performance (Özatay & Sak, 2002). Argentina also had an economic crisis in 2001, which was caused by frequent structural changes in the government with a "*tragicomic spectacle of a succession of five presidents taking office over a mere ten days*" (Burke-White, 2008), unstable political and economic situations, and fixed exchange rates. Another first sign of a global economic crisis began in 2008 in the U.S. housing market (Shibly, 2013). It affected not just the US government; it dragged in many European countries as well as Asian countries (Helleiner, 2011). On the other hand, the Spanish economy has had one of Europe's fastest growth rates and highest levels of success. This outstanding feat was made possible by immigration, low interest rates, and economic freedom. This success, however, came to an end in 2007, when Spain experienced a severe economic collapse.

Since 2019, Sri Lanka has also started experiencing a crisis, financially, politically, and economically, which can be called a "multi-faced crisis". Several reasons contributed to Sri Lanka's current multi-faceted crisis. Economic mismanagement, an increase in foreign debt, dwindling foreign reserves, a weaker currency, and increased prices are examples of the causes (George et al., 2022). In 2019, the Sri Lankan government cut the number of taxpayers by 33.5%, reduced VAT to 8%, reduced corporate tax from 28% to 24%, eliminated the Economic Service Charge tax, and abolished NBT tax affecting from 1st December 2019. Additionally, increasing external debt issues, agricultural issues due to the ban on fertilizer, and issues in the tourism industry also contributed as the main causes of the economic crisis (George et al., 2022). Moreover, the Easter Sunday attack in Colombo in 2019 and the breakout of the global pandemic impacted Sri Lanka's foreign currency-generating industries, namely tourism, remittances, and exports (Sharma, 2022).

2.2 FOREIGN CURRENCY RESERVES IN SRI LANKA

From 1977 to 1997, the US dollar reserves in Sri Lanka increased from 278 million to 2029 million. However, by the end of 2000, it had declined to 1049 million. By introducing the independent floating exchange rate on the 23 January 2001, commercial

banks could freely determine the exchange rate. The intervention's goal is to prevent excessive volatility in the short term while also increasing the country's foreign reserve position in the medium term. Thus, the managed floating regime may be viewed as an intermediary phase (before the market matured considerably) in Sri Lanka's progression of currency rate policy toward independent floating (Central Bank of Sri Lanka, 2006). The foreign reserves increased to 3,500 million, and in 2009 they decreased to 1,300 million (Karunaratne, 2010). Currently, Sri Lanka is facing the most crucial stage, as the country is on the brink of bankruptcy.

At the end of 2019, the country's reserves stood at 7.6 US billion dollars but by the end of 2020, reduced to 5.7 US billion dollars as the foreign currency inflows reduced due to the pandemic. The gross official reserve position of the country deteriorated to critically low levels by the end of 2021 due to higher foreign currency debt service payments amidst inadequate foreign exchange inflows. In August 2020, Sri Lanka started losing its foreign reserves, but it majorly lost in November 2021. As of December 2021, Sri Lanka had only US\$ 3,137 million foreign exchange reserves and according to the weekly economic indicators published by the CBSL, at the end of April 2022, the foreign reserves stood at 1812 US million dollar. At the end of the year 2022, foreign reserves stood at 1,898 US million dollar (Central Bank of Sri Lanka, 2023). By January 2023, it increased to 2,120 US millions dollar (Central Bank of Sri Lanka, 2023). When reserves decrease, it impacts the exchange rate, affects liquidity, decreases foreign investments, causes issues with international payment obligations, and reduces development (infrastructure). Thus, unemployment and poverty, rising inflation, fuel shortages, health concerns, forced migration, and people's dissatisfaction were all major issues that arose during the year 2022.

2.3 RELATIONSHIP BETWEEN THE ECONOMY AND THE CONSTRUCTION

Han and Ofori (2001) suggest those mature economies have larger construction industries that contribute 5%–8% to the gross domestic product (GDP), whereas the construction industries in developing countries contribute only 3%–5%. Construction and the economy are linked, with some studies suggesting that construction influences the economy while others suggest that the economy influences construction (Ramachandra et al., 2013). When there is a boom in a nation's economy, there will be a boom in the construction sector, but when there is a downturn, there can be a slowdown in construction activities (Ramachandra et al., 2013). Anyhow, any changes in the economy may have an impact on industries, including construction, and vice versa. Ozkan et al. (2012) conclude that in Turkey, the long-term relationship in infrastructure investments is not affected by economic shocks in the short run, but building and residential investments get affected by short-term economic shocks.

The construction industry includes a broad range of activities, operations, and sectors, including the construction of buildings, roads, and railways. When the construction industry is at its peak, a significant number of individuals are employed (Gnanothayan & Kauškale, 2022). In 2005, just after the tsunami, Sri Lanka had to face a series of its toughest years as rehabilitation and rebuilding of houses started. With that, in 2005, the contribution from the construction sector was 7.2%, which decreased to 6.7% in the year 2010. But when considering the 2012 contribution, it was marked at 8.1%, which was a significant increase. The Sri Lankan construction industry was actually on an upward trend in the post-conflict scenario in the country. The end of the island's ethnic war in

2009 revived economic activity and resulted in an infrastructure-building boom. Significant reconstruction activities were expected to be undertaken in the North and the East of the country after 2009. The other regions of the country were also expected to see significant development activities (Jayalath & Gunawardhana, 2017), which actually became a reality to a greater extent until 2016. In the year 2016, the contribution to the GDP from the construction industry dropped to 7.1%, which continued to go down in the year 2018 to 6.8%, and further decreased in the year 2020 to 6.2%. Accordingly, in 2021, the GDP contribution from the construction sector was recorded at only 6.1% (CBSL, 2022). The Government indicated that Sri Lanka was insolvent when it announced a temporary suspension of repayment of all external debt and stated that due to the country's worsening financial situation brought on by external and internal shocks, it is no longer able to honour its commitments (Cassim, 2022).

3. METHODOLOGY

The process through which researchers perform their research is known as the research methodology. It demonstrates the process by which these researchers define their problem and objective and then provide their findings based on the data collected over the study period (Sileyew, 2019). To examine the possibility of undertaking research on or studying a subject about which little or no information is available, exploratory research methods are used (Kumar, 2018), which is the case with this study as well. Quantitative, qualitative, and mixed methodologies are the three most common research approaches (Williams, 2007). Developing an understanding of the meaning and experience aspects of people's lives and social environments is the aim of qualitative research (Fossey et al., 2002).

A case study is a research strategy used to develop an in-depth, multifaceted understanding of a complex topic in its real-life environment (Creswell, 2014) whereas the survey strategy is useful when the research problem deals with a large population, and thus gathering information from a large group of people is possible to understand their opinions, attitudes, behaviours, or characteristics. As the research problem of this study (i.e., the impact of the depletion of foreign currency reserves on the construction industry) is a widely known and experienced phenomenon by the entire construction industry in the country, a large population is involved, from which a large sample can be drawn for the data collection. Therefore, this study adopted the survey strategy.

Within the survey strategy, the semi-structured interview technique was adopted over the questionnaire technique as the study is exploratory in nature and somewhat in-depth knowledge and experience of the interview participants were required to be gathered in the form of qualitative data. Öhman (2005) states that rather than pre-defined hypotheses, the qualitative approach is mainly based on the participants' knowledge, opinions, and experiences, which are expressed in thoughts, ideas, feelings, and perceptions. 15 professionals from the construction industry who work under contractors and professionals from the finance industry who are involved in the economic sector were selected for the data collection sample using the purposive sampling technique. According to Kumar (2018), the most significant thing to consider in purposive sampling is determining who can provide the most information to aid in the study's objectives. The profiles of interview participants are provided in Table 1.

Table 1: Interviewee information

Participant		Designation	Experience
Participant no 1	P1	Project Manager	5
Participant no 2	P2	Senior Quantity Surveyor	20
Participant no 3	P3	Project Engineer	15
Participant no 4	P4	Engineer, Construction Manager	12
Participant no 5	P5	Quantity Surveyor	8
Participant no 6	P6	Ch. Quantity Surveyor	22
Participant no 7	P7	Chartered Accountant, Director	17
Participant no 8	P8	Chartered Accountant	15<
Participant no 9	P9	Chartered Accountant, Director General	23
Participant no 10	P10	Ch. Quantity Surveyor	20
Participant no 11	P11	Project Engineer	10
Participant no 12	P12	Quantity Surveyor	14
Participant no 13	P13	Ch. Quantity Surveyor	15
Participant no 14	P14	Construction Manager	6
Participant no 15	P15	Project Manager	18

Two separate sets of interview guidelines were prepared for the financial sector professionals and the construction sector professionals. It enables the researcher to compare and contrast different perspectives and viewpoints of professionals on the depletion of foreign reserves and its impact on the construction industry. All the data generated through the interviews was analysed using the manual content analysis technique. The researchers usually look for patterns, themes, or biases in linguistic, visual, or behavioural data in the content analysis (Williams, 2007).

4. DATA ANALYSIS AND DISCUSSION

4.1 CAUSES OF THE CURRENT ECONOMIC CRISIS IN SRI LANKA

Interview participants pointed out that the economic crisis in Sri Lanka is mainly caused by the Easter bomb attack in 2019, the COVID-19 pandemic, which started in early 2020, and the political instability in the country from the year 2019 on. Table 2 and 3 shows these causes and effects along with the root causes as revealed during the interviews.

Table 2 : Classification of effects of the economic crisis in Sri Lanka

Easter bomb attack		COVID- 19 Pandemic	
Tourism Industry	Tourism Industry	Lack of export	Remittance
P1, P2, P5, P8, P9, P12, P15	P1, P3, P4, P5, P6, P7, P9, P12, P13	P1, P2, P3, P4, P5, P6, P7, P9, P10, P13, P14	P1, P2, P4, P8, P9, P10, P14, P15

Table 3: Classification of causes of the economic crisis in Sri Lanka

Political dimensions				
2019 Government policies		Political Instability	Corruption	Huge external debt
Tax reduction	High-interest rates			
P1, P2, P3, P4, P5, P7, P8, P9, P1, P12, P13, P14, P15	P1, P2, P3, P5, P8	P3, P7, P9	P1, P9	P1, P3, P7, P8, P12, P13, P14

4.1.1 Easter Bomb Attack in 2019

The Easter bomb attack that took place in April 2019 targeted popular hotels in Colombo and historical churches in Sri Lanka. Interviewees P1, P2, P5, P8, P9, P12, and P15 highlighted that the attack directly hit a main international reserve revenue stream, tourism. P2 said in the month of May 2019, the number of arrivals significantly dropped, but by December 2019, the tourism industry had improved because of the high level of security in the country. The attacks had a significant impact on the tourism industry, as well as other sectors such as air transportation, domestic transportation, wholesale and retail trade, accommodation, food and beverage service activities, leisure and entertainment, and agriculture. Foreign investment from the government securities market and the Colombo Stock Exchange also suffered, with price indexes and market capitalisation falling (Central Bank of Sri Lanka, 2019).

4.1.2 COVID-19 Pandemic

The unpredicted pandemic situation of COVID-19 in December 2019 created sudden lockdowns and health and safety restrictions. Everyone stated that the COVID-19 pandemic affected the tourism industry, foreign remittances, and the export industry. P1, P3, P4, P5, P6, P7, P9, P12, and P13 highlighted restrictions imposed by the government to control the virus that blocked one of the main foreign revenue streams, tourism. COVID-19 resulted in the unemployment of many immigrants, resulting in a decrease in the flow of foreign currency. As the Sri Lankan construction industry is a highly import-oriented industry, the travel and border restrictions temporarily blocked the raw materials importation impacting the projects, as per P1, P2, P3, P5, P6, P9, P10, P13 and P14.

4.1.3 Political Dimensions

With the new appointment of the government in 2019, new policies and regulations were imposed, which resulted in many issues in the economy, said the participants. The 2019 government" created drastic changes that greatly impacted the foreign currency to deplete. P11 mentioned that the cancellation of taxes such as the NBT and ESC (Economic Service Charge) had an impact the revenue of the government. Also, with effect from 1 December 2019, the VAT rate was decreased from 15% to 8% on imports, and/or supply of products, and the delivery of services. The financial sector professionals admitted that the high bank savings and fixed deposit interest rates discouraged many future investments and interest on loans and interest on investments are much higher than previously. P3 mentioned, "These days you and I both prefer to deposit money in the bank

rather than invest". Corruption and non-transparency have caused a social crisis in the country, leading to protests against the poorly managed economy and government policies. P1 and P9 strongly believed that corruption had impacted the economy for a long time. By the end of June 2022, the government had Rs. 24,264.4 billion in total outstanding debt (Statistics Department, 2022). Huge external debt for the long term is also a major result of the depletion of foreign reserves. P8, P10, and P15 concluded by saying that long-term unnecessary import patterns, huge external debts, political instability, and poor decision-making led to the foreign currency crisis in Sri Lanka.

The literature sources, such as George et al., (2022), Sharma et al., (2022), and Aryal & Balashanmuganandam (2022), and the findings of empirical data are in line in terms of the causes of the economic crisis, and accordingly, the main causes were confirmed as the Easter bombing attack of 2019, the COVID-19 pandemic, new government policies, corruption, and huge government debts.

4.2 FOREIGN CURRENCY RESERVES AND SRI LANKA CONSTRUCTION INDUSTRY'S RELATIONSHIP

The construction industry has an immense relationship with foreign reserves, as 70% to 80% of materials are imported from different countries, and a very small percentage of products are manufactured in the country mentioned by P6. All participants mentioned that the construction sector heavily depends on imported materials such as steel, sanitary fittings, electrical fittings, aluminium, petroleum, etc. In order to purchase the materials, the country should have sufficient foreign currency. Due to the depletion of foreign reserves in the country, contractors especially faced issues with material imports and restrictions imposed on importing materials such as steel, sanitary fittings, tiles, and glass. This created delays and reductions in quality in construction projects, as said by P9 and P15 mentioned that materials such as cement, steel, aluminium, and glass have had to be imported as the production in the local market does not meet adequate quality and quantity. Moreover, P4 mentioned that fuel is also one of the main materials required to run a construction site, which has a serious shortage in supply. Further, P6 stated that the construction industry adds to the trade deficit, which means the construction sector imports rather than exports and creates a negative balance of trade.

The interview participants came up with more negative than positive impacts of the foreign reserve crisis. P12 mentioned, *"It is devastating to talk about the negatives only, I wish there were positive impacts as well to talk about"*. Accordingly, the empirical data can be analysed using two main criteria as below.

4.3 THE IMPACT OF THE DEPLETION OF FOREIGN CURRENCY RESERVES ON THE SRI LANKAN CONSTRUCTION INDUSTRY

4.3.1 Negative Impacts

The construction industry heavily depends on raw material importations. All participants strongly elaborated that the restrictions imposed by the government were directly affecting the construction industry, as the industry depends on many imported items. P4, P7, and P8 mentioned that, though some items are not restricted, banks are not supporting payments because of government regulations. Many contractors had to face difficulties due to this issue, as essential items such as cement, steel, aluminium, tiles, and fittings got restricted by the Imports and Exports (Control) Regulations No. 05 of 2022, issued

on 9 March 2022, as expressed by P4, P6, P7, P8, P9, P11, P12, and P13. P5, P6, and P14 emphasised that huge price fluctuations were happening in market prices and that the high inflation of materials caused a temporary suspension of projects. Additionally, the rejection of LCs (Letters of Credit) by foreign banks and suppliers led Sri Lanka to impose a 100% cash margin on LCs for over 600 items. Moreover, the unavailability of imported materials creates a significant demand for the available materials in the country, such as tile, cement, and steel. These material shortages, which created an unnecessary demand for certain local items, ultimately led to drastic price increases on the local materials. P8 responded that the new taxation and higher borrowing rates affected the construction industry because many contractors run their projects using loans from commercial banks. On the other hand, construction clients are reluctant to invest in projects due to the high risk in the construction industry, and small-scale construction clients consider saving in banks to be more advantageous to them, said P7. Exchange rate fluctuation impacted the construction industry, both positively and negatively.

Due to the loss of income sources for the government, such as tourism, workers' remittances, and exports, many outstanding bill payments for contractors are on hold for parties. According to the P7, the insufficient reserves as well as rupee components had a big impact on the payments of the large-scale contractors who were engaged in government projects. Therefore, many construction companies had to terminate staff to reduce overhead costs, posing a threat to the currently employed skilled, unskilled, and professional employees, as mentioned by P2, P3, P5, and P13.

4.3.2 Positive Impacts

P4, P5, and P6 stated that with the restrictions imposed on importation, local manufacturing items started becoming highly demanded. P5 mentioned, *"Previously, we were planning to import our tiles, but due to the current scenario, we purchased the necessary materials locally."* P6 stated that *"I wished the local manufacturing was enough to cater to the needs of the industry, but unfortunately, it wasn't."* Due to the unavailability, the local manufacturers have started to expand their production levels and try to accommodate the needs of the industry. P1, P3, and P5 expressed the positive side of foreign currency depletion, as many projects are run by multilateral and bilateral funding or foreign investments, and public-private partnerships created a safe scenario during the crisis period. P1 specifically mentioned that his project was not much affected by the economic crisis as it was foreign-funded. He added that, though the government is unable to do interim payments, the interim payments from foreign clients were not interrupted. Also, he said it benefited because the restricted items to import were supplied by the foreign client. Further, P1 and P4 said that if they are under a foreign client, the payments are done in foreign currency, and due to the increased exchange rates, the contractor benefits from this scenario.

Overall, the interviewees broadly explained how the foreign currency depletion affected directly and indirectly. Some newspaper articles and website authors also confirmed that there are many challenges and effects due to the depletion of foreign currency. Soysa (2022), Fernandopulle (2022), and Hewage (2022) identified that there are critical issues such as rising material costs, payment delays, suspended government projects, difficulty in importing goods, and increased interest rates that the construction industry in Sri Lanka is facing. Thus, the findings from the semi-structured interviews are very much in line with the literature findings.

4.4 ORGANISATIONAL DECISIONS TO MINIMISE FOREIGN CURRENCY DEPLETION IMPACT ON SRI LANKA’S CONSTRUCTION INDUSTRY

According to the project type and organisational capacity, the strategies taken to minimise the impact vary. P14 said that organisational-level decision-making can impact the whole organisation. It can either propel it forward and into success or it can destroy the company's value. P5 mentioned that some organisations were able to support their employees financially as well during the economic crisis. Table 4 shows the actions or the decisions implemented by various construction organisations, which are critically analysed and discussed within this section.

Table 4: Actions and decisions taken at an organisational level

Actions and Decisions	Interviewee
Temporary suspended new construction projects	P7, P12, P13
Stopped importing through Sri Lankan commercial banks	P1
Supply material by international construction clients	P1
Up to 40% increase in the advance payment	P1
Reduce expenses	P4, P6, P10, P12, P13, P14
Termination of employees	P4, P7, P12, P14
Implementing foreign collaboration	P2, P3, P4, P9, P15
Scaling down the capacity	P4
Moving away from the industry	P5
Foreign franchises companies closed down	P5, P15
Pay only basic salaries	P5
Implementing new export areas	P6, P11, P14

Especially, many contractors, as well as clients, have stopped implementing new projects that affect the organisation, said P7, because new projects have many risks with the economic crisis and as the private sector companies do not undertake any project that is not profitable. They are not willing to take any risk regarding any loss of profit, stated P5. With the import restrictions imposed in March 2022, international clients supplied the items, for example, fuel, steel, and sanitary fittings. This minimised Sri Lanka's foreign currency outflow to some extent.

The construction projects have a high percentage of overhead. It is considered an excellent decision implemented at the organisational level to cut down on unnecessary expenses, P12 stated. P12 continued to state that his company started to be more digitalised in the documentation process to minimise the paper usage because Sri Lanka had a period of paper shortages and because it is environmentally friendly too. Moreover, digitalisation at the organisational level improves efficiency.

One of the major negative dimensions that was implemented by many organisations was to terminate staff members to reduce the cost of the overhead of the company, as stated by P4, P7, and P12 participants. P3 mentioned that some organisations only paid the basic salary. P4 said that the organisations have scaled down their operation levels. For example, large-scale construction companies have scaled down their operations to medium-scale projects to avoid any risks. Some organisations move away from the construction industry slowly as there is no profit from the income, said P5.

There were decisions implemented that resulted in positive effects for organisations or the country. According to P2, P3, P4, P9, and P15, there were some organisations that

focused on foreign collaborative projects to increase their foreign currency cash flow. In foreign collaborative projects (PPP), the client, according to the agreement, either builds and owns it or transfers it, or operates and transfers it; by doing this, both parties' benefit. The other positive side that P6, P11, and P14 mentioned was that companies have implemented or are trying to implement export areas where foreign income can be generated. Participants suggest that consultancy services and precast materials can be exported. P1 mentioned that contractors increase their advance payment up to 40% as a condition of their agreement so they are able to purchase more materials before further price fluctuations. Furthermore, P1 mentioned the government should intervene in the situation so organisations could be strong in this economic crisis situation.

The actions taken by individual organisations to minimise the impact of the depletion of foreign currency reserves, such as reducing expenses and starting new foreign collaboration projects, can be identified as the most effective decisions because Tang et al., 2010 cited in Cumming (2007) mentioned that one of the primary benefits of the PPP model is that it can save resources in a range of ways. Edkins and Smyth (2006) said that because of private sector participation, government assets, data, and intellectual property can be used more productively, resulting in significant improvements in the quality of public buildings and services.

4.5 GOVERNMENT ACTIONS TO MINIMISE FOREIGN CURRENCY DEPLETION IMPACT ON SRI LANKA'S CONSTRUCTION INDUSTRY

During the interview process, the interview participants expressed dissatisfaction with the level of support received from the government for the construction industry. P15 said that it is not just the foreign reserve issue but also the local currency (LKR) issue in the government that has caused severe problems in the construction industry. P6 added that only the IQSSL (Institute of Quantity Surveyors Sri Lanka) Annual Forum "*Emerging through the crisis*" conducted regarding the crisis situation; other than that, he was not aware of any positive decisions made to stabilise the construction industry during the economic crisis, and he continued to say that the government is discussing only concessionary measures for contractors because the contractors keep pressuring the government to invest in projects during the crisis. P8 declared that first the priority has to be given for the most important projects in the country and said that according to CIOB president Dr. Rohan Karunaratne, Cabinet Ministers granted to reimburse the contractors for price fluctuations that do not exceed 20% of the contract value utilising the Construction Industry Development Authority's (CIDA) Price Verification Formulae. Yet, the overall point of view of the participants was that the support of the government is not up to the expected level. The government introduces a special liquidity facility to the construction sector and to other government suppliers that enables contractors to get loans that are equal to the value of outstanding payments from the government. There are new opportunities implemented by the government to increase foreign employment opportunities and improve the remittance cash flow. The Foreign Employment Bureau and Foreign Employment Ministry conduct several latest skill-related programs and courses that enable Sri Lankans to work overseas. Overall, interviewees had a negative perception of the government, and many weren't satisfied with the actions taken and decisions made by the government. Some pointed out that the government should take responsibility and implement solutions to help the professionals to survive in the industry.

4.6 SUGGESTIONS AND RECOMMENDATIONS TO MINIMISE THE IMPACT OF DEPLETION OF FOREIGN RESERVES

The interviewees of the study stressed different perspectives on the actions taken and decisions made by different parties as presented and discussed in the previous section, and as the last part of the interviews, it was able to obtain the suggestions and recommendations for the construction industry, which are summarised in Table 5.

Table 5: Suggestions and recommendations

Suggestions and recommendations	Interviewee
Foreign funded projects	P1, P3, P5, P8, P10
Should resolve the material unavailability issue	P2, P11, P13
Resolving outstanding payments to contractors by the government	P2
Outsourcing new contracting or consulting overseas projects	P4, P9, P14, P15
Research to find indices	P4
Expand the organisation to other sectors	P5
Development parallel to other countries	P5
Increase production level of raw materials	P6
Value addition in global production and supply chain	P6
Export local manufacturing products and services	P1, P3, P7, P10, P12, P13
Engaging in public-private partnerships	P7, P8

As per Table 5, it is clear that most of the interviewees have stressed that as a nation as well as an industry, the export industry should be focused on improving. P7 and P10 mention that the construction industry can export items such as precast concrete to middle eastern countries or the Maldives, where there is a great demand. Also, P1, P3, P5, P8, and P10 state that it is important to create opportunities for the organisations with relevant capacity to implement foreign-funded projects in Sri Lanka. Many have seen a very positive aspect due to the implementation of foreign-funded projects in Sri Lanka in terms of payment by clients and flexibility to supply materials.

P4, P9, P14, and P15 also spoke about outsourcing facilities and services overseas. P4 stated that most large-scale organisations outsource only 10% of their work, but that this should be increased to 50% at the very least to help the economy. Moreover, P5 said that there are experienced and well-educated professionals in the country, so the government should get the best results from them by creating an atmosphere for them to serve the country. P7 and P8 said improving and adopting Public Private Partnerships in future projects is considered a recommendation because there are many positive outcomes. Expanding the business to other sectors would create a safe environment in a crisis, said P5, and he continued by saying that most importantly, adopting new technologies such as BIM concepts is his suggestion to survive any crisis situation.

The Construction Industry is essential for the national economy, generating a significant portion of GDP and creating employment opportunities. It stimulates the National Development Process through its forward and backward connections, leading to continuous growth (Construction Industry Development, n.d.). A causal relationship between economic growth and construction activity can be postulated, when an economy is booming, construction activity increases. A slowing economy slows down construction, leading to decreased economic growth. The government should devise a

better plan for making the payments that are expected to be made to the majority of contractors, and the government should perform more research to uncover indices, said P4. P4 also said that preparing for the future should be done at the organisational level, not just at the government or national level. Furthermore, the government should try to solve the issue of shortage of materials, stated P2. According to P6, the Sri Lankan construction industry should improve in manufacturing products used in construction and exporting materials, which increases the production level of the country, and expose itself to international supply chains, which creates international relationships and a marketplace in the industry and improves foreign cashflows. The most important finding of the interview data analysis is that most of the interviewees have great potential and enthusiasm to improve as an industry as well as a nation. These professionals from the construction and financial sectors suggest solutions to overcome or minimise the situation, but they agree that it cannot be done overnight, but with support from the professionals and authorities, challenging situations can be overcome.

5. CONCLUSIONS

This research aimed at investigating the impact of foreign currency reserve depletion on the Sri Lankan construction industry. Three objectives were formulated to achieve this aim, and a qualitative research design was implemented. The literature mainly gave an overview of the current economic crisis and foreign currency depletion in Sri Lanka. The empirical findings established causes of the economic crisis in Sri Lanka, which are the Easter bomb attack in 2019, COVID-19 pandemic, and political dimensions. The causes were further classified into dimensions such as the tourism industry, the lack of export industries, a downward trend of the remittance income, new government policies that resulted in tax reductions and high inflation and loan rates, corruption, and huge external debts.

The construction industry is an import-oriented industry, which got affected due to the depletion of foreign currency reserves. In this study, the negatives and positives of the depletion of foreign currency are discussed as the second objective of the study. The current actions and decisions taken at construction organisation and government levels were discussed as the third and final objective of the study. Organisational and government-level actions and decisions are not at a satisfactory level, as per the evidence suggested by the empirical data, and it was found that most of the construction sector professionals are at risk in their careers, many organisations wind up their operations, and some liquidate the company. On the organisational level, both positive and negative actions and decisions have been made during the economic crisis period. The study proposes that the government of Sri Lanka should take responsibility and act immediately to minimise the impact on the construction industry, as well as that the government and organisations should implement research studies to identify the factors that affect and help overcome a situation like an economic crisis. Additionally, it recommends creating better awareness of the risks and strategies to overcome economic instability in the future. The study was limited to the Sri Lankan construction industry and how it affected the contractor's party because the participants were professionals employed under contractors.

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