

# CHALLENGES ON BONDS AND GUARANTEES UNDER THE PAYMENT SECURITY REGIME IN THE CONSTRUCTION INDUSTRY OF SRI LANKA

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## ABSTRACT

*The construction industry is a significant contributor to the national economy. Since construction has been facing risk management issue, bonds and guarantees have become a feasible solution, as a management tool and mechanism. Professionals will have to undertake consequential responsibilities in managing bonds and guarantees. However, no significant efforts have been taken to identify how bonds and guarantees affect the construction industry of Sri Lanka. This research aims to explore the challenges and problems in bonds and guarantees, which are used in Sri Lankan construction projects, and to make recommendations to projects in the Sri Lankan context. Initially, a literature review has been carried out on different bonds and guarantees. Consequently, a mixed research approach has been used, which included expert interviews and a questionnaire survey. The collected data from expert interviews were analysed using content analysis that supported the design of the questionnaire. To achieve the study's aim, the bonds and guarantees were ranked against merits, demerits, issues, and suggestions in questionnaires using a Likert scale, considering the significance of those competencies in bonds and construction guarantees. The collected data were also analysed using the Relative Importance Index. The research findings are revealed that there are several suggestions to overcome the barriers in bonds, guarantees and payment securities in Sri Lanka. Additionally, contractors' requirement to set up a special guarantee fund to protect business practices and it was identified as new suggestions that would aid the challenges and problems in line with bonds and guarantees in Sri Lankan construction projects.*

**Key Words:** Bonds and Guarantees; Contracts; Construction Industry; Payment Securities.

## 1. INTRODUCTION

The construction industry is a contributor to the national economy that engages in land preparation and construction, road reconstruction, and reconstruction of buildings, structures, and infrastructure facilities (Ogunsemi, Awodele, and Oke, 2015). In many developed countries, the construction industry is one of the largest, most complex, and comprehensive sectors. Moreover, Gawugah and Daniel, (2015) have mentioned the construction industry is one of the significant contributors to the economy, and payment

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turns into the central focus for both the contractor and the client. The construction sector plays a crucial role in the Sri Lankan economy (Jayalath and Gunawardhana, 2017). Bonds and guarantees are the key factors to reduce construction project failures in the construction industry (Ohol, et al., 2019). Further according to Ogunsemi, Awodele, and Oke, (2015) identified the challenges of advance payment to contractors. Failure to make advance payments, difficulty getting a prepaid guarantee, customer's burden, and customers' extra work (Rameezdeen, Palliyaguru, and Amaratunga, 2006). The practice of retention is becoming increasingly difficult for contractors as the profitability margins are narrowing. It causes many series of related problems in the construction industry, which can eventually lead to cash flow problems and, therefore, to the contractor (Ganiyu, et al., 2015). However, irrespective of the importance of this area, research was carried out to determine whether contractors in Sri Lanka face difficulties in bonds and guarantees in the construction industry.

One of the salient features of construction projects is that it is fraught with risks (Oke, 2016). Since the construction industry is underdeveloped, breach of contract is high (Meng, 2002). Cheng, et al. (2010) expressed that it's not always easy to obtain paychecks. The construction industry can show how much effort is needed to do this and how it affects escalation due to payment issues. In such cases, employers need to reduce risk by using guarantees and guarantees (Knezevic and Lukic, 2016). Thus, Wu, Kumaraswamy, and Soo, (2011) recognised that besides several research types have discussed regulative measures addressing payment problems in the construction industry.

On the other hand, there are several types of research carried out in this area. However, limited research has been done to select problems about bonds and guarantees in the Sri Lankan construction industry. Therefore, this study requires to highlights how bonds and guarantees issues affect the construction industry. Furthermore, considering the literature as mentioned earlier and the industry need, there is a knowledge gap to be filled on the challenges of bonds and guarantees in Sri Lankan contexts. Therefore, this research was carried out to resolve bonds and guarantees and their problems to the construction projects in Sri Lanka.

The aim of this research is to investigate challenges and problems in bonds and guarantees used in Sri Lankan construction projects for proper application of payment securities to projects in the Sri Lankan construction industry.

## **2. LITERATURE FINDINGS**

### **2.1 BONDS AND GUARANTEES IN THE CONSTRUCTION INDUSTRY**

Construction projects in the construction industry use different bonds and guarantees (Banki, et al., 2009). Construction guarantees are also known as risk management tools for improving construction performance (Nursalam, 2016). Furthermore, Meng's (2002) findings confirmed that the employee might demand that the contractor provide guarantees or payments that include bid bonds, performance bonds, advance payment guarantees, and retention bonds pressuring the contractor to pay for components and materials for subcontractors and others, which obligates the contractor to pay subcontractors and others for materials and labour. According to Lukic (2014), the bank guarantee constitutes a commonly employed and internationally agreed instrument for obtaining and executing international trade contract statements of parties, so all stakeholders' rights are efficiently secured. Furthermore, in specific businesses with more

substantial obligations and protection, banking assurances are typically needed that the responsibilities exchanged with both the contract are fulfilled in the manner specified. Ndekugri and Rycroft, (2009) explored and summarised construction projects that a bank or any financial institution accomplishes a bond or guarantee to pay to the worker in certain situations up to the bond amount.

## **2.2 BENEFITS OF USING BONDS AND GUARANTEES**

The construction industry is frequently riskier when compared to other businesses (Surahyo, 2018). Payment issues are common in the construction industry around the world (Wu, et al., 2011). Moreover, Hussin (2009) expressed that construction arrangements are always very complicated and unpredictable, so that something may go wrong at any moment. Construction contracts are often too complicated with uncertainties, and anything could go wrong at any time (Surahyo, 2018). Construction contracts are also quite complicated with complexities, and something can go wrong at any moment; moreover, every building contract is particular; each provides a multitude of specific issues and difficulties (Surahyo, 2018). Furthermore, Meng, (2002) mentioned that mostly in the construction industry, it is assumed that there has been a strong trend towards increasing the default danger in past years and creating a construction contract guarantee program vulnerable.

## **2.3 TYPES OF BONDS AND GUARANTEES**

- **Bid Bonds**

Bid bonds promise that, when a contracting contractor accepts an offer and then fails to join the bid in line, the debt shall compensate the purchaser a differential in size, equal to the default limit of the bond, between the lost bid and the next lowest bid (Boswall, 2007).

- **Performance Bonds**

A bond to performance may be considered more critical than other bonds (Meng, 2002). Another important guarantee that a contractor, supplier, or exporter of goods must often be furnished at the beginning of a construction or engineering project, or an international sale of goods contract is the performance guarantee, performance bond, or completion bond (Lukic, 2014).

- **Advance Payment Guarantees/Bonds**

Based on the contractual conditions, a client may pay the contract amount as advance payment before the start of work, also known as the (Wandahl, et al., 2011). If a contractor is entitled to pay the amount stated in advance following the contract, the contracting partner may require a guarantee that the advanced money is reimbursed if the contractor fails to do this (Lukic, 2014).

- **Retention Bonds**

In reality, owners often take over finished contracts before paying contractors, often preventing untrustworthy owners' compensation duty (Meng, 2002). Hughes, Hillebrandt, and Murdoch (2000) concluded that the retention of money is a prevalent means of protecting an employer from bankruptcy and ensuring that contractors complete their work.

### • **Factors Affecting Administration of Bonds**

Contractors believed construction bonds administration to be four significant factors (Oke, 2019). These factors demand security before the bond is borrowed, the bond's validity time frame, the contractor's financial standing, and the selection of the customer's guarantor in decreasing order, with the least effect on corruption (Oke, 2016). Hosle (2010) summarised the customer has released the management of bond issues from the beginning of bond management. Identified factors could be summarized as below:

- Requesting collateral and security before underwriting bond, the Validity period of bonds
- Provision of follow up bond agencies
- The technical ability of the contractor
- Integrity
- Experience and performance track record of the firm
- Financial standing of the contractor
- Integrity and personal character of the firm's owner
- Clients' choice of guarantor for the contractor
- The interest rate charged by the guarantor

## **2.4 ADVANTAGES OF USING CONSTRUCTION BONDS**

Construction bonds guarantee time, expense, and efficiency for the project completion and boost the optimum level of service of the contractors (Emmanuel, 2019). Furthermore, Faced, (2009) illustrated the crucial point is that the usage of the construction bond cannot be reduced, and therefore that the fundamental goal is to boost development projects' duration, costs, and productivity. Identified advantages could be summarized as below:

- It serves as a back-up for the client in case of a contractor's default.
- It helps to guarantee that projects are completed to time, cost, and quality
- It helps to guide against fraud on the part of the contractor
- It avoids conflicts among construction stakeholders
- It guarantees an optimum level of contractors' performance
- It helps to ascertain the financial status and buoyancy of contractors/bidders
- It ensures that projects are completed to an acceptable standard
- It helps to guide against abandonment of buildings
- It helps to limit the use of litigation or ADR methods (alternative dispute resolution) in construction contracts.

## **2.5 CHALLENGES AND PROBLEMS ASSOCIATED WITH CONSTRUCTION BONDS IN SRI LANKAN CONSTRUCTION INDUSTRY**

The following challenges, risks, and problems can be identified for further assessing the use and administration of construction bonds in construction industries (Oke, 2019).

- They are increasing value for bonds and guarantees due to political influence.
- The ambiguity of term of reference for bonds.
- The problem of poor administration and leadership.
- Lack of definite standard for administering construction bonds.

- Unprofessionalism by banks in the administration of construction bonds.
- Most construction bonds are one-directional in that it is only binding on the contract.
- Multiple bonds can lead to reduced profit as the contractor bears most of the bond's cost, such as the interest rate charged by financial institutions.

There is no proper monitoring of the bond process, thereby rendering it ineffective. The major problem that can be identified for the parties is that these bonds and guarantees don't have the proper and both parties must also be strict adherence to the involved in terms of the bonds. Besides, there is a need for stakeholders to be faithful to the bonds' condition, and they should have a decent idea of the requirements and the construction contract. A high level of political influence in selecting contractors due to government building projects depends heavily on bond issues and guarantees.

### 3. RESEARCH METHODOLOGY

For this research, a mixed approach was adopted due to the requirement of assessing subjective data as expert's opinions. Moreover, data as expert interviews and questionnaire survey were adopted to collect data for this research (refer Figure 1). The expert interview is essential to continue this research, researcher selected 4 interviewees with more than 10 years of experience in the construction industry.



Figure 1: Research process

Details of interviewees used for expert interviews is given in Table 1.

Table 1: Details of interviewees for expert interviews

Interviewee	Designation	Years of Experience	Types of Organisations
A	Managing Director	22	Contractor, Consultant, Project manager
B	Consultant Quantity Surveyor	23	Contractor, Consultant
C	Senior Quantity Surveyor	15	Contractor, Consultant
D	Chief Quantity Surveyor	10	Contractor, Consultant

Interview data collected were analysed using code-based content analysis with the help of NVivo software. A comprehensive questionnaire was then mailed to 51 practicing construction professionals, within and outside the country, out of which 30 responded. Respondents had to give a level from the Likert scale for each competency element. The Relative Importance Index (RII) is used as a questionnaire response analysis technique

that has been used by many researchers to determine the relative importance of attributes to rank attribute.

## 4. RESEARCH FINDINGS

### 4.1 ANALYSIS AND FINDINGS OF EXPERT INTERVIEWS

Semi-structured interviews were conducted as the initial stage of data collection among quantity surveying experts who have been in the construction industry for more than ten years. Following the method described the expert interviews were conducted based on the interview guidelines. Besides, all the interviews were between thirty minutes and forty minutes long. Using the NVivo 10 software package, the interviews were analysed via a code-based content analysis method. For the preparation of the questionnaire, the results of the interviews were used. These are summarised in Tables 2 and 3.

*Table 2: The benefits of bonds and guarantees in the Sri Lankan construction industry*

<b>After the literature review</b>	<b>After expert interviews</b>
Protects client from the risk of a contractor failing to fulfill its contractual obligations. Avoid the risk in the construction industry	Guarantees act as a financial security against money that has been paid. Lack of proper monitoring by guarantors, Lack of definite standard for administering construction bonds & Low level of awareness of construction bonds.
Guarantees act as a financial security against money that has been paid (advance payment or retention money guarantee).	They are increasing of value for bonds and guarantees due to political influence. The ambiguity of term of reference for bonds & the problem of poor administration and leadership.
Financial security against the future performance of the contract (advance payment)	Unprofessionalism by banks in administration of construction bonds & most construction bonds are one-directional in that it is only binding on the contract
Financial security against the validity of the bid (bid security)	Lack of Government rules and regulations to promote the usage of bonds and guarantees

*Table 3: Suggestions to overcome the barriers to bonds and guarantees and correctly implement payment security regime in the Sri Lankan construction industry*

<b>After the literature review</b>	<b>After the expert interviews</b>
Multiple bonds can lead to reduced profit as the contractor bears most of the bond's cost, such as interest rate charged by financial institutions.	Additional effort and time for obtaining bonds and guarantees from banks. We have to manually obtain it as per the forms in the contract document.
There is no proper monitoring of the bond process, thereby rendering it ineffective.	Need for sensitisation and awareness on the usage of construction bonds.
Lack of proper monitoring by guarantors and low level of awareness of construction bonds & definite standard for administering construction bonds.	There must be strict adherence to the terms of the bonds by the parties.

After the literature review	After the expert interviews
They are increasing of value for bonds and guarantees due to political influence. If it is a tiny contractor, then maybe not having a long-term relationship with the bank.	Need for proper education for stakeholders. Modification to existing legal status. Involvement of insurance companies in policy formation.
Small contractors may find it difficult to deposit for the surety to obtain the guarantee to keep that money freeze for a more extended period of time.	There should be a common standard for construction bond administration. Guarantors should be ready to play their duties to construction bonds as at when due.
Concerning the client, he is having the risk involved in the vat, but he is not getting that vat as far as the contract is concerned.	Reduced level of political influence in the selection of contractors. Guarantors need to make their charges on construction bonds affordable by the contractors.
The requirement for contractors needs to set up a guarantee fund to protect business practices.	Sensitisation and understanding of the use of construction bonds are necessary. State policies to slash guarantee charges.
The financial institutions, the guarantors, should be cautioned of unnecessary intrusion, leading to an extension of project time.	Introduce the construction industry guarantee fund for Contractors.
Guarantors need to make their charges on construction bonds affordable by the contractors.	Encourage the bonds from the Contractor's guarantee fund

#### 4.1 ANALYSIS AND FINDINGS OF QUESTIONNAIRE SURVEY

The final stage of data collection was the questionnaire survey. To carry out a questionnaire survey, the findings of the literature review and expert interviews were used. The findings are summarised in Figures 2, 3, 4 and 5.

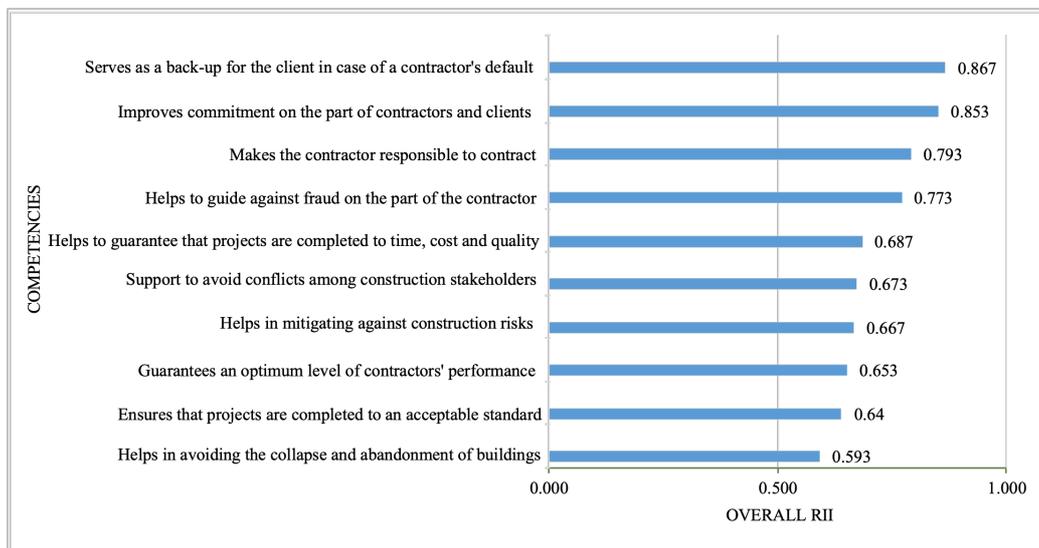


Figure 2: Merits of using bonds and guarantees in the construction industry Sri Lanka

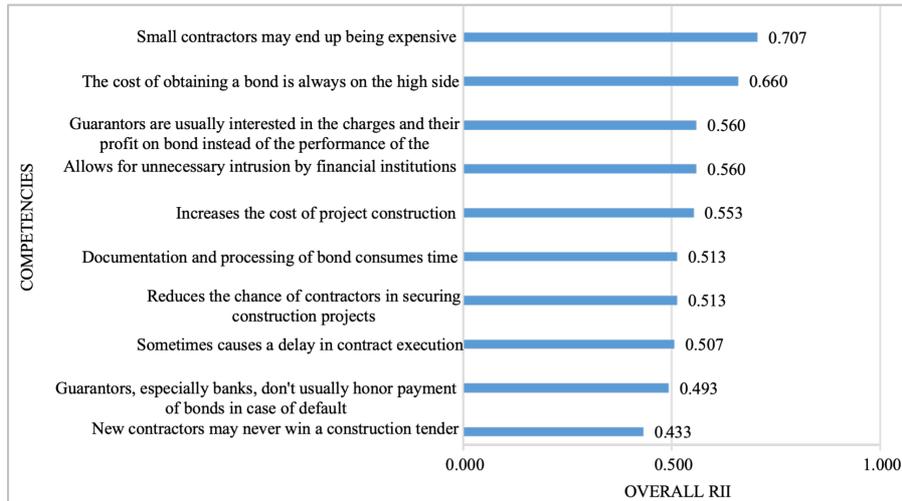


Figure 3: Demerits of using bonds and guarantees in the construction industry Sri Lanka

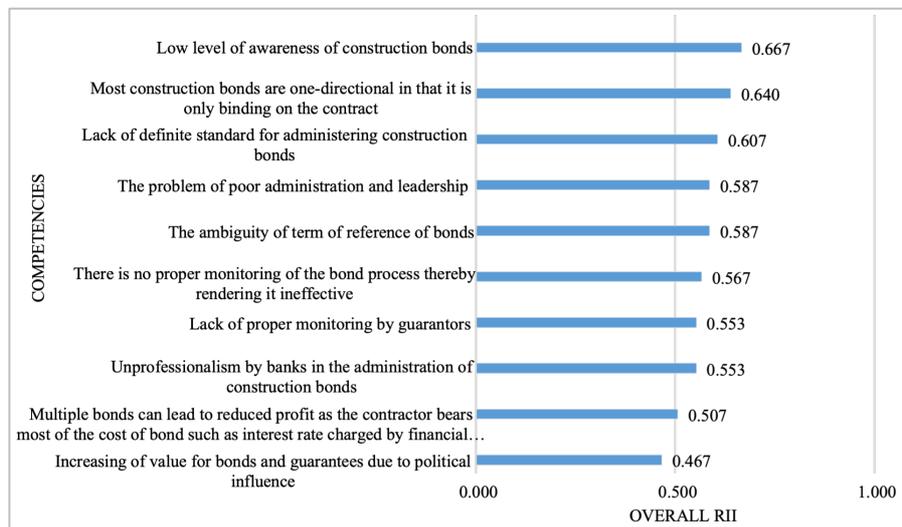


Figure 4: Issues of using bonds and guarantees in the construction industry Sri Lanka

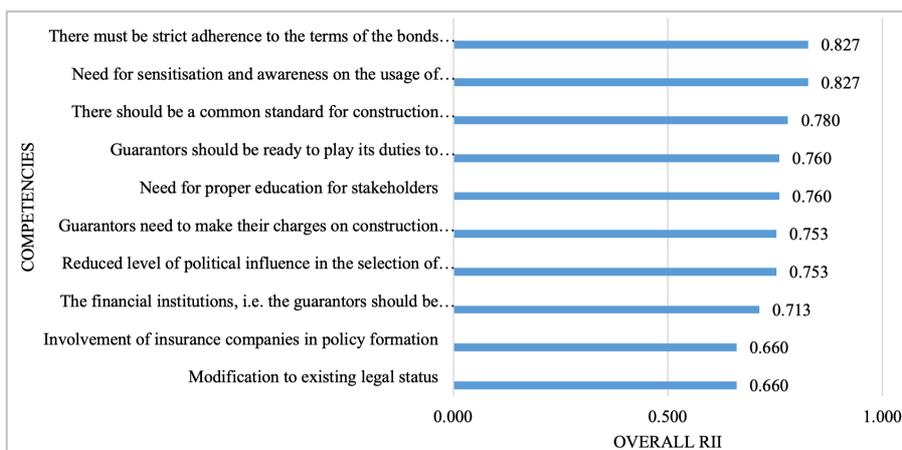


Figure 5: Suggestions for effective administration of bonds and guarantees in the construction industry

## 5. CONCLUSION AND RECOMMENDATIONS

Findings have pointed out that identifying the challenges and issues on bonds and guarantees in Sri Lankan construction projects would be essential shortly, and bonds and guarantees will play a significant role in the construction industry. Consequently, the research proposes recommendations for the challenges on bonds and guarantees under the payment security regime in the construction industry of Sri Lanka. The analysis reveals suggestions to overcome the challenges on bonds and guarantees under the payment security regime, which have to be used in the Construction Industry in Sri Lanka.

Hence priority should be given suggestions to overcome the barriers to achieve issues of bonds and guarantees. Priority should be given considering that suggestions ranking list. New suggestions identified from the research, the requirement for contractors need to set up a guarantee fund to protect business practices and introduce the construction industry guarantee fund should be established in the Sri Lankan construction industry within the near future. In addition to that, Guarantors need to make their charges on construction bonds affordable by the contractors. That could help construction parties to perform well in the Sri Lankan construction industry. Financial organizations and banks must be updated and educated on bonds and guarantees in the construction industry, and quickly obtainable procedures must be established. Most importantly, the identified challenges and problems on bonds and guarantees in the study and any more challenges and problems that would be identified in the future have to be well established in the Sri Lankan construction projects. Research shall be undertaken in the education system to determine the use of construction bonds necessary for new issues and their suggestions.

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