

**COST IMPACT OF “SECURITY OF PAYMENT ACT”
TO THE SRI LANKAN CONSTRUCTION SUPPLY
CHAIN**

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149122 J

Degree of Master of Science in Construction Law and Dispute Resolution

Department of Building Economics

University of Moratuwa

Sri Lanka

February 2018

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DECLARATION

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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I hereby acknowledge that G.H.K. Priyadarshani has followed the dissertation process for the Masters of Science in Construction Law and Dispute Resolution set by Department of Building Economics under my supervision.

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Date

ABSTRACT

Construction industry supply chain is a pyramid. Due to its complexity of contracting and sub-contracting, the construction industry is set apart from other industries. For a large construction project, this pyramid can have number of different levels below the sub-contractors also as sub-sub- contractors and so forth down the pyramid. As such, a delay in payment from the employer will freezes up the flow of funds below level of the pyramid. The Act of Security of Payment comes in to action in other countries to prohibit contingent payment clauses in contracts, to minimize unnecessary delays in progress payments and then protect the downstream payments. Accordingly, it has been identified that such Act would be very important to be implemented in Sri Lankan construction context also due to that the same situation is being undergone by Sri Lankan industry too. Since the importance of Act has already been identified, it was decided to identify the potential provisions of a security payment act, identify the parties in the construction supply chain affected by the Act and synthesize the nature of potential cost impact to each party under different situations subjected to the Act. Accordingly, a comprehensive literature survey was carried out to identify the potential provisions of the Act and parties affected by the Act. In order to synthesize the cost impact to each identified party, a semi structured interview was carried out to identify the current grounded phenomenon of payment issues. The professionals were selected from the identified group of levels of employers, main contractors, sub-contractors and suppliers to conduct the interviews. They were mainly questioned about financing the gap in between the progress payment request and receipt of money, delay of payments, back to back payment clauses, prompt payments and Security Payment Act. It was identified through the interviews that no additional premium is added to the contract price in order to finance the payment gaps. But according to the nature of the employer, markup will be adjusted concerning the past experiences with that particular employer. Delay payments have been a common issue in the industry and back to back payment clauses are usually included in sub contracts due to this. Therefore, actually, there is a real request emerged from the industry to take necessary actions to minimize this issue. Further, the potential cost impact to the each party was evaluated under the situations come across under the Act as identified in literature survey. It was recognized that the there is a potential positive cost impact to the contractors, sub-contractors and suppliers who are down below the pyramid and though initially the employer has to bare additional cost, the system itself get balanced once the Act implemented resulting positive cost impact to the employer too.

Keywords: Supply Chain Pyramid, Delay Payments, Security of Payment Act, Cost Impacts

DEDICATION

*I dedicate this piece of work to all who
supported.....*

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ABBREVIATIONS

SOP	–	Security of Payment
ANB	–	Authorized Nominating Body
CIDA	–	Construction Industry Development Authority
FIDIC	–	International Federation of Consulting Engineers
IPA	–	Interim Payment Application
IPC	–	Interim Payment Certification

1.0 INTRODUCTION

1.1 Background

Generally, construction industry plays an important role of a country's economy due to its unique features of large volume of work, energetic nature, and complexity. Construction work may involve construction of new structures, reconstructions or refurbishments, additions to an existing structure, modifications or repair of buildings and technical projects such as highways, bridges or utility systems (Behm, 2008).

The Construction industry is different from other industries by its organization, product, stakeholders, process and its operating environment etc. Accordingly, the characteristics of a particular construction product i.e. its custom built nature, immovability, higher cost involvement and complexity set construction apart from many other industries. Unlike other industries, in construction, a source outside the industry will initiate the concept of the product i.e. the employer may completely unaware of construction, and undoubtedly the production is commenced after he has determined his requirements and then has decided to procure it. In this respect, construction is very much like a service industry (Moavenzadeh, 1976, p. 28).

Furthermore, Cheng, Soo, Kumaraswami and Jin (2009) stated that construction is further set apart from the other industries due to its immovability i.e. the final assembly of the product is done at the place of its ultimate use. Since the final product cannot be transported, the consistency of local demand is utmost important for the growth of the construction industry.

Chan (2008) stated that process of financing for production in construction is, to a certain extent, unique. In most industries, production is financed by the producer, i.e. for an example, manufacturer's business capital or short term bank loans and is completely independent from the customer and product. But in construction, however, the production of a specific facility is financed largely by the customer or

client, rather than by the constructor, by periodic payments upon completion of work to the constructor during construction.

Coming to the topic supposed to be elaborated in this study, it is very important to identify that the supply chain in construction is a pyramid due to its complex arrangement of contracting and sub-contracting. Following figure No. 1 illustrates the construction supply chain on a large building project (“The Need for Prompt Payment Legislation in the Construction Industry”, 2013, p. 8).

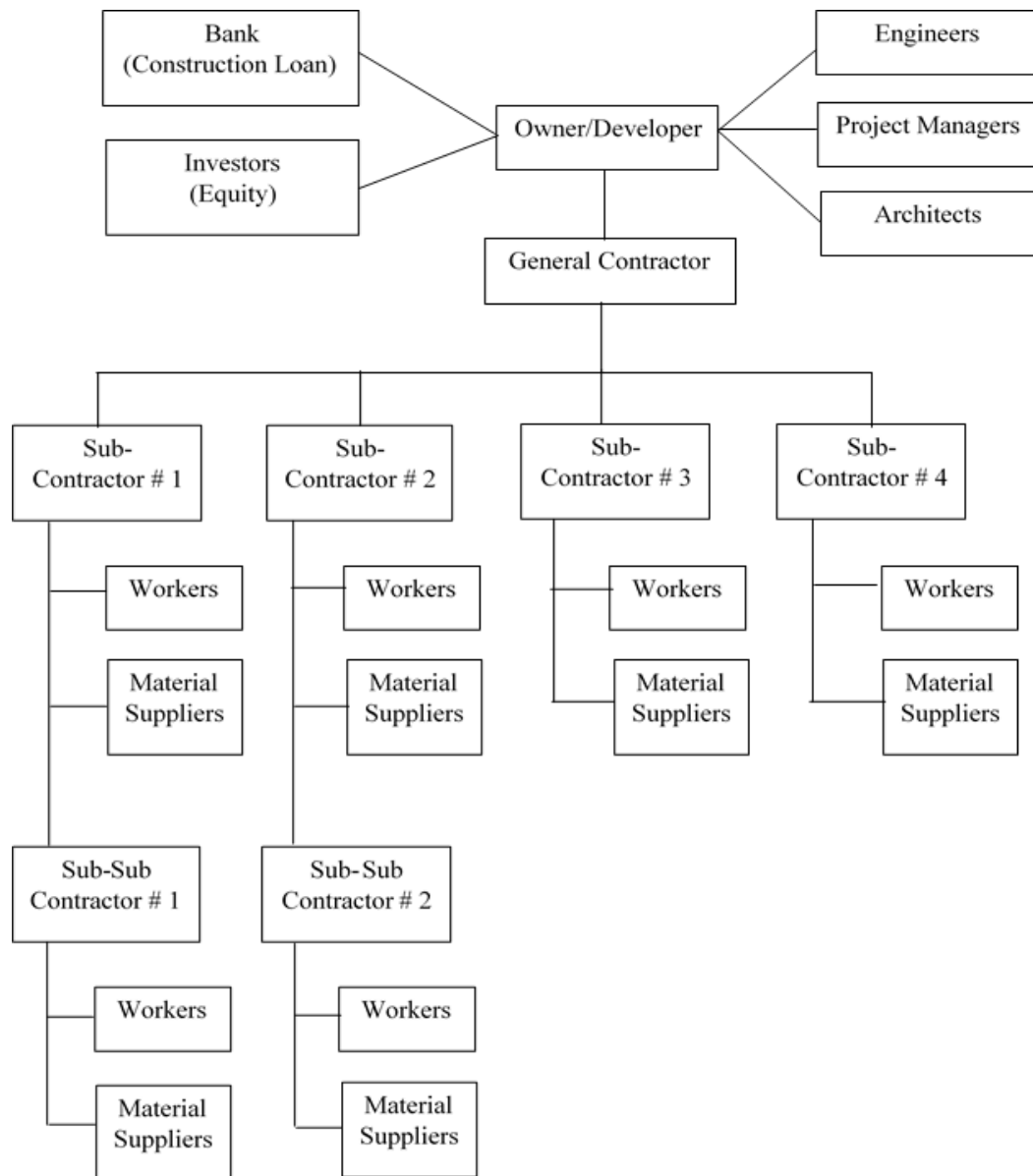


Figure 1: Construction Industry Supply Chain on a Large Building Project

The pyramid can have numerous levels when Sub-Contractors further sub-contract their scope of works to other small contractors who become Sub-Sub-Contractors at the bottom of the pyramid. According to the reports, General Contractor (Main Contractors) execute the highest proportion of the construction work on large projects and in most of the developed countries, it is estimated that, they execute more than 80% of the direct construction work (“The Need for Prompt Payment Legislation in the Construction Industry”, 2013, p. 9) and (“The Need for a Prompt Payment Act in Federal Government Construction”, 2015, p. 2).

1.2 Research Problem and Rationale

The research problem and justifications can simply be explained through the above illustration. Accordingly, in the construction industry, funds flow from the Owner/Developer to the Main Contractor and then respectively to the numerous Sub-Contractors and Sub-Sub-Contractors, based on satisfactory completion of construction works. This satisfactory completion is usually determined by the Engineer i.e. the Consultant who has a separate contractual agreement with the Owner/Developer as per the general practice here in Sri Lanka.

Generally, due to the complexity of the above payment system, it is highly exposed to payment disputes which finally lead to the unnecessary delays to the construction project. When one party delays the payment, it consequently affects to the flowing of funds to the all levels of the pyramid who are subordinates to them. According to Supardi, A., Adnan, H. and Mohammad, M.F., if it is the General Contractor (Main Contractor) who delays the payment, then the sub-contractors and sub-sub-contractors further down the pyramid are subjected to greater risk of unexpected payment delays, although their work are fully completed satisfactorily (2010). Even though the payments are delay, in most of the times, due to contingent payment clauses, the contractor is contractually entitled to continue the works while contractually dealing with it claiming interest for delayed period. But still, the key problem is not solved and due to that it leads to another dispute for paying interest.

This system opens up for disputes and further gets interrupted due to so many reasons that will be discussed below. A dispute between the Owner and the Main Contractor can hold back the payments for all the parties down the pyramid even though the dispute is related to the performance of only one. The Owners sometimes tend to hold back the entire payment interrupting Main Contractor's cash flow which subsequently impact the funds flow to the all subordinates.

Similarly, the flow of funds to all of the Sub-Sub-Contractors who are further down the supply chain can be interrupted also by a dispute between the Main Contractor and a Sub-Contractor (Supardi et al. 2010). Likewise, further down the pyramid, the other Sub-Sub Contractors who are not even a party to the original dispute but depend on that cash flow to finance their work can be get disturbed due to a dispute between a Sub-Contractor and a Sub-Sub-Contractor as already discussed above. Further, if the Owner has so many other demands on its capital, he may tend to hold back the payments for Main Contractor, even for the reasons that are non-related to Main Contractor's performance. Similarly, the Main Contractor also may act alike when he requires short term funds for his other engaged contraction projects and purposes.

Therefore, those contractors who are uttermost down the pyramid are at the greatest risk because there are more parties through whom the funds must flow and usually faced to payment delays.

Since the payment has been believed to be the life blood of the construction industry, non-payment or delayed payment is known as a main problem that has led some contractors to abandon the contract even (Ali, 2006, p.4). As well as, the cash flow is considered to be the backbone of main contractors and subcontractors. Therefore, if the payments due to them are unreasonably withheld, it would probably drive them to insolvency. And consequently the entire chain of subcontractors and suppliers will be collapsed too and ultimately the entire construction industry will suffer.

Further, May & Siddiqi (2006) states that timely run of money are required for the timely completion of a construction project, from the owner to the main contractor and downwards to the subcontractors, sub-subcontractors and suppliers (p. 13). However, generally, as per the Sri Lankan construction industry, in almost all the subcontracts, the main contractors habitually tend to transfer the risk of the owner's non-payment to subcontractors by including contingent payment provisions, for examples, "pay-when-paid" or "pay-if-paid" clauses.

However, Act of "Security of Payment" (SOP) comes into practice as in above scenarios to prevent this practice of delaying or withholding payment with no valid reasons. If it is further clarified, the payments of main contractors and subcontractors, unreasonably held back by owners and main contractors are protected by this Act (May and Siddiqi, 2006).

Jacobs and Marcus (2009) have stated that the Security of Payment permits the speedy determination of progress claims for supply of goods or services under contracts or sub subcontracts which is comparatively a new initiative for construction industry (p. 12). Under this process, adjudication has been established where its determinations can be enforced in court without going for lengthy and further expensive arbitration or litigation.

The first of the security of payment legislation is the Security Payment Act by US federal government. Few of other examples for SOPs include UK Housing Grants, Construction and Regeneration Act 1996, the Prompt Payment of Accounts Act in of 1997 in Ireland, the Building and Construction Industry Security of Payment Act of 1999 in New South Wales, of 2002 in Victoria, of Queensland in 2004, and the Construction Contracts Act 2004 in Western Australia, the Construction Contracts Act 2002 in New Zealand and of Building and Construction Industry Security of Payment Act 2004 in Singapore ("The Need for a Prompt Payment Act in Federal Government Construction", 2015, p. 10).

In Malaysia also, the Construction Industry Payment and Adjudication Act 2007 has been finalized and enacted (Supardi, A., Adnan, H. and Mohammad, M.F., 2011). They further adds that even the where the construction contract is included no provisions on the progress payment, this Act will protect and enable the progress claim to be paid to the contractor under speedy recovering system. Accordingly, the Act prohibits contingent payment clauses and allows speedy settlements for progress claims. And also it provides suspension of work for delay payments or for failure in providing the security for payment after the settlement.

As states by Wallace (2013), the contingent payment clauses like “pay if paid” or “pay when pay” are banned to secure the timely flow of money down the construction supply chain pyramid (p. 31). Due to such contingent payment clauses, a contractor may simply avoid the payments of a sub-contractor because he is not yet been paid under a separate contract between him and employer. Therefore, in various jurisdictions, it has been identified that these contingent payment clauses should be banned in concerning the protection of the payments for the work actually executed at site by the contractor.

By far Sri Lankan construction industry has not been introduced such act to protect the cash flow within construction pyramid though they face the same problem as discussed above. While it is clear that introduction of such an act will have benefits, there can be new and varied costs at different levels of the construction supply chain arising from implementing such an act. Therefore, knowing the variations to costs at different levels of the construction pyramid is important in developing policies and strategies.

1.3 Aim and Objectives

Addressing the above problem, this study aimed to find the potential cost implications to Sri Lankan construction supply chain from an introduction of Security of Payment Act.

The objectives fulfilled while carrying out this study were,

- Identify potential provisions of a Security Payment Act.
- Identify parties in the construction supply chain affected by the Act.
- Synthesize the nature of potential cost impact to each party due to implementing such Act.

1.4 Methodology

The research was divided in to three phases as preliminary study phase, data collection phase and data analysis phase. In the preliminary study phase, a literature survey was conducted to identify potential provisions of a Security Payment Act, the parties in the construction supply chain affected by each provision of the Act and the nature of potential cost impact to each party due to implementing such Act.

In the data collection phase, a semi structured interviews with predetermined open questions were conducted to get professionals' feedback on identified facts to find the ground condition (what is really there) on literature findings in the context of local construction industry.

In the last phase i.e. data analysis phase, the data obtained from the interviews were manually evaluated to present the result.

1.5 Scope and Limitations

This research was conducted within Sri Lankan context. Assuming that the nature of construction industry and the consequences of delay payments within the construction process are so very common in spite of the place or country of construction, relevant literature in different countries were studied thoroughly throughout this research.

Nevertheless, the weightage or intensity of each fact identified through the literature survey might be different from country to country subjected to the professionals' feedback on them with compared to the construction context of Sri Lanka. Therefore, the result or outcome of this study would be compatible to the Si Lankan context only.

1.6 Chapter Breakdown

This report consists of five chapters as follows.

Chapter One – Introduction

This chapter gives an overview to the research and presents the structure of the report. This includes background of the study, research problem & rationale, aim & objectives, methodology, scope & limitations and the chapter breakdown.

Chapter Two - Literature Review

This explores the theoretical status of research issues through a comprehensive literature review.

Chapter Three – Research Methodology

Here, research methodology is discussed. This includes research design, research settings and the process of data analysis method etc.

Chapter Four - Research Findings

In this chapter, professionals' feedback on ground condition of construction progress payment system received through interviews is presented concisely. Consequently, the potential cost impacts to each level of construction supply chain due to

introducing or implementing a Security Payment Act for Sri Lankan construction industry are identified and analyzed.

Chapter Five - Conclusions and Recommendations

Finally, conclusions and recommendations of the study carried out and further research areas that can be touched in future in relevant to the study are given in this last chapter.

2.0 LITERATURE REVIEW

2.1 Introduction

Literature synthesis is a comprehensive approach to the research to get a better understanding about the theoretical status of the research problem. Thus, this chapter explores the Payment Disputes in Construction Industry, Objectives of a Security Payment Act, Security Payment Acts in Different Jurisdictions and Potential Provisions of a Security Payment Act. Further, the Parties in the Construction Supply Chain affected by the Act, Potential Situations of Payment Process under the Act and the Nature of Potential Effect to the Parties in Construction Supply Chain under each Situation are reviewed.

2.2 Payment Disputes in Construction Industry

As mentioned above early in this research, the process of producing and building infrastructure or a facility is known as construction. In general, there are three sectors of construction i.e. buildings, infrastructure and industrial. As well, building of new structures, renovations involving additions, alterations, or maintenance and repair of buildings or engineering projects such as highways or utility systems are also included in construction. (Behm, 2008).

In every industry, payment delay is an immense problem and it is common for the Sri Lankan construction context too. However, the consequences of delay payment are increased by the unique structure of the construction industry. Because of the complex structure of contracting and sub-contracting, the construction industry is unlike from all other industries. As explained by Ali A.N. (2006), the structure of contracting and sub-contracting requires the cash to flow through many levels of a pyramid for uninterrupted functioning. An interruption to the flowing of payment anywhere in the construction pyramid has a flowing effect down the rest of the contracting and sub-contracting chain.

According to the report on Payment Delays in Sri Lankan Construction Industry by National Construction Association of Sri Lanka, the contractors consider the timely payments to be the utmost important to them in delivering the project by the time. In consequence, therefore, some contractors have been led to abandon the contract even due to late payments.

Gregory (1996) explains that in regardless of the contract is financed by the government, World Bank, Asian Development Bank and any other organization, the contractors are by experience unsatisfied of the payment system due to the delay of payments. Moreover, according to Hinze and Tracey (1994), whatever the funding agency, which matters would be the behavior of the client because the causes that create such situations are same. Therefore, unfortunately there is no significant difference when dealing with any of above funding agencies.

At the same time, Miller (2014) states that, the Engineers, since they are always under pressure from Clients/Employers and/or financing agencies to limit the payments due to insufficient budgets, tend to have their own interpretations in indefinite contract clauses. These interpretations are always a disadvantage to contractors because they are either technical or administrative.

In most of government and provincial council institutions, the process of passing progress bills to several officers for the purpose of checking, certification, recommendation and finally for approval is deliberately provided in contracts to get the contractors to their table. This uncooperative process will then lead the unduly consumption of time for the release of payment depending on the attitude of each officer sometimes indirectly demanding for some sort of benefits from the contractor (National Construction Association of Sri Lanka-Southern Province, 2013).

In general practice of Sri Lanka, once the payment application is certified by the Engineer or Consultant and approved by the Employer or his authorized party, the accounts branch will attend to the release of payment. There also the payments get

delayed due to lack of proper coordination, communication among technical and engineering divisions and also due to delays in allocations for payments are not made in advance by the treasury or financing agency.

As deeply analyzed and discussed about this phenomenon by Moavenzadeh (1978), it is clear that the incapacity of the Employer or Client to handle the project in its typical stages of preparation, execution and determining additional works has resulted in late payments. If the situation is further analyzed, it seems that the outside symptoms are much obstructing to delay of payment. The reasons may be either the employer is bankrupted and left no money to pay. But sometimes this truth is hidden from the contractor to defend the reputation and instead, contractual or legal excuses are raised in order to get bribes from the contractor.

In Sri Lanka, the scope of work in the government works is deviated in creating variations by the interference by political personalities unfortunately which are beyond the control of authority of the government officials. The project description is amended may be by increasing the physical dimensions, change of the location of the construction and all possible forms of legal impediments (National Construction Association of Sri Lanka-Southern Province, 2013).

Moreover, the clients have established a practice to pay for the variations and extra works only with the final payment of the contract though all money incurred including variation & extra work during the month is entitled to be received by the contractor with the respective interim payment. Therefore, the cash flow will be adversely affected disturbing the work programme and achieving mile stones (Carmichael and Balatbat, 2010).

Ofori (2000) states that the variation amount is unknown to the client until the final payment stage due to not determining it when necessary. Sometimes this may exceed the limit of money allowed for a particular authority. Then the risk of getting unpaid for part of the extra works/variation will automatically rise and it may ended up in

waiting for indefinite time to get the approval from relevant authorities for that exceeded amount. Only a recognized procedure of early payment may remove this disadvantage to the contractors.

Nevertheless, the effect of all these negative acts would finally put pressure on being paid by the bottom of the supply chain pyramid introduced at the beginning. Accordingly, the construction professionals and experts have proposed the following improvements to overcome these drawbacks (“The Need for Prompt Payment Legislation in the Construction Industry”, 2013).

- 1) Contracts to be prepared better contractually giving genuine financial information on funding the project, opportunity or right to the contractor to suspend or terminate the contract under fair economic conditions. The contract shall be in balance without seriously mismanaged in favour of the client.
- 2) A better preliminary study to be done for quality assurance in accordance with the system provided by CIDA (Construction Industry Development Authority) and the employers shall be prevented from issuing poorly prepared tender documents by using the check list obtained by quality assurance system.
- 3) The Cash flow is considered to be the essence of the construction industry due to all runs on cash. Therefore, every contractor and sub-contractor is concerned for quick and prompt payment terms in the contract. A careful strategy and planning shall be followed in certification and payment.

But most importantly,

- 4) Construction industry Security Payment Act shall be formulated and enacted to protect the payments and the improvement of construction industry.

Specifically, there is a radical rethink over traditional contractual and management procedure in the industry due to the Building and Construction Industry Security of Payment Acts now in force in most States. Every business involved in Building and Construction including contractors, subcontractors, clients, suppliers and professional firms are supposed to be subjected to this Act (Abeysekara and Wedawatta, 2008). However, the general community of Sri Lankan context as well is little understood the consequences and impact of these Acts.

2.3 Security of Payment Act

A Security of Payment Act is to enable the prompt payment for progress claims under a construction contract. The Act provides to appoint an adjudicator to determine the payment to be paid when concerning to a dispute relevant to the amount due. The due date for the payment and interest also to be assessed by him. This process is established focusing on maintaining the cash flow with a rapid settlement procedure (Building and Construction Industry Security of Payment Act 2009: Version 10.12.2011, 2011).

Further, it implies that money owed shall be paid within very short and defined time limit under the Act. However at the same time it does not prevent the final determination of a dispute at the later stage wherever it is appropriate under the terms and conditions of the contract. The scope of the Acts is spread in a wide range where it can be associated with any type of building construction including materials supply and professional services.

2.3.1 Objectives of the Act of ‘Security of Payment’

Generally, in the construction business, there are periodical progress payments during the contract period or project duration. In this period, the right to payment for work done and goods supplied for construction works will be preserved by the SOP. And also the cash flow is facilitated by establishing a fast and low cost adjudication

method to determine payment disputes. There, the right to suspend work or withhold the supply of goods and services is provided for the affected parties if the adjudicated amount is not paid in full or not paid at all (Carmichael et al., 2010).

Further, as mentioned above, they added that the act of SOP was intended to support the adjudication process to be fast and economical which will consequently speed up the resolution of disputes regarding payments and make sure that the cash flow of a contractor will not be disrupted. However, the genuine intent of above is preventing the process to claims in respect of payment for work done or goods supplied.

Though there are different Acts for different legislations, the objectives of SOP is almost same as they have enacted. Accordingly, the main purpose of this Act is to provide for rights to progress payments for persons or parties who carry out construction work or who supply related goods and services under a construction contracts (Building and Construction Industry Security of Payment Act: Act 15 of 2002, 2002). They further enact the objectives as follows.

1. To ensure that progress payment for the work actually carried out by or payments for supplying good or services under a construction contract is recovered by the parties or they are entitled to receive the particular payment.
2. Where relevant construction contract is silent on the receipt of payment, the SOP ensures that a person or a party is entitled to receive a progress payment by providing a legal entitlement, i.e. adjudication determination which is enforceable in court, to that payment.
3. To ensure that a person or a party is entitled to recover a progress payment by establishing an accepted procedure that consist of,
 - Application of a payment claim by the person or party who claim the payment (“Claimant”)
 - Providing of a payment schedule by the person or party by whom the payment is payable (“Respondent”)

- Provision for application of any undecided claim to an adjudicator for determination
 - Payment of adjudicated amount by the Respondent or the grant assurance by setting aside money due and
 - Recovery of the progress payment through a court order if the Respondent fails to pay.
4. Any other entitlement or any other remedy that a person or a party to the construction contract may have under the particular construction contract, is not limited by this Act.
- For an example,
The payment of adjudicated amount or assurance granted by setting aside money does not prejudice any claim, counter claim or review concerning the work done or material or services supplied under a construction contract to be raised up in arbitration or any other dispute resolution method.

2.4 Potential Provisions of ‘Security Payment Act’

Being identified the objectives as described above, it would be important to go through the SOPs of different jurisdictions like United Kingdom, Australia, New Zealand and Singapore who have enacted Security Payment Acts under Acts of ‘Security of Payment’. Following are such SOP Acts currently in force in the industries of different jurisdictions.

2.4.1 Security Payment Acts of Different Jurisdictions

2.4.1.1 UK Housing Grants, Construction and Regeneration Act 1996 (Construction Act)

The background for this Act is supported by a report on the construction industry commissioned by the UK government in 1994, where they identified and paid the attention to the damage caused to the construction industry by payment delays.

There, an attempt to include a clause in a revised form with effect of introducing 'pay-when-paid' conditions by a contractor was recommended to be declared unfair and invalid. Subsequently, 'pay-when-paid' clauses in the Housing Grants, Construction and Regeneration Act, 1996 (commonly known as the 'Construction Act') were prohibited by the government and it was provided that 'pay-when-paid' clauses are void, except in conditions of bankruptcy.

If a 'pay-when-paid' clause is included in a construction contract, the Act provides that the clause is ineffective. Further, an accelerated adjudication system to settle performance disputes is provided by the Construction Act. The procedure provides for a decision within 28 days or, with the agreement of the referring party, 42 days (Carmichael et al., 2010).

As stated in *The Need for Prompt Payment Legislation in the Construction Industry*, (2013), the prompt payment provisions of the original 1996 Act were subsequently reinforced by the Local Democracy, Economic Development and Construction Act 2009, Part 8 ("Construction Contracts").

2.4.1.2. Building and Construction Industry Security of Payment Act of 1999 in New South Wales, of 2002 in Victoria, of Queensland in 2004, and the Construction Contracts Act 2004 in Western Australia

Generally, Security Payment Act in Australia operates at both the Commonwealth level and at the state level. New South Wales which accounts for approximately one third of construction activity in Australia, began the process of payment reforms initially (Coggins, Elliott and Bell, 2010). According to Brand and Uher (2008), 1997, Building and Construction Industry Security of Payment Act was enacted by the government of New South Wales and was subsequently revised to minimize the ambiguity in the original version. The New South Wales statute specifically invalidates 'pay-when-paid' clauses.

They further discussed that upon submission of invoice, the payments is due within 15 days under a contract and paying late would generate interest. Similar to the U.K. statute, the New South Wales Act also accelerates the decision-making system to control holding payments for performance reasons. Similar statutes were adopted by most other Australian states and by the Commonwealth legislature.

Under Australian Security of Payment Legislation following acts are in force. (Refer Appendix 1)

- Building and Construction Industry Security of Payment Act 1999 in New South Wales
- Construction Contracts (Security of Payments) Act 2004 in Northern Territory
- Building and Construction Industry Payments Act 2004 in Queensland
- Building and Construction Industry Security of Payment Act 2002 in Victoria
- Construction Contracts Act 2004 in West Australia
- Building and Construction Industry Security of Payment Act 2009 in Tasmania
- Building and Construction Industry (Security of Payment) Act 2009 in Australian Capital Territory
- Building and Construction Industry Security of Payment Act 2009 in South Australia

2.4.1.3. Construction Contracts Act 2002 in New Zealand

The main intention of the Act in New Zealand also is to facilitate installment payments and to provide a mechanism for rapid resolution of related disputes. Specially, the main advantage was banning the contingent payment clauses though it was agreed under construction contracts (Abeysekara and Wedawatta, 2008).

They further mentioned that the payments of contractors and sub-contractors are now protected under the Construction Contracts Act 2002 which was established following Australian and U.K. bills. As same as the above Acts, contingent payment clauses in construction contracts and contracting out of the Act are prohibited. Following the submission of valid invoice, the payment is due within 20 days and speedy recovering, through adjudication, of progress payments held back due to unproven reasons is provided.

2.4.1.4. Building and Construction Industry Security of Payment Act 2004 in Singapore

Again as same as above, since the delay payments or non-payments is a common issue in most of the construction contracts, numerous forms of dispute resolution mechanisms have been originated in the construction industry. Singapore also identified the same problem and enacted the Building and Construction Industry Security of Payment Act 2004.

According to Supardi et al. (2011), in Singapore also, timely payment of a progress claim that helps the cash flow to be maintained as expected has become considerable problem for contractor. On the other hand, the employer is also in trouble when a payment to be done for excess amount of work, may be due to variations etc., or for defective work. Therefore, the payment process regularly feature in a defense, set off and counter claim in resisting payment. This whole scenario finally will lead to delay in completion and liquidated damages by the contractor.

2.4.1.5. Republic of Ireland

1997, the Republic of Ireland introduced the Payments Act to public institutions to pay their accounts within 45 days. This applies only to construction by the public sector and interest rates to pay on delay. The main reason for the delay in building the private sector is the lack of agreement on performance. However, in 2011, the

Republic of Ireland also adopted the Construction Contracts Act which is demonstrated in concerning the U.K.'s Construction Act where both the public and the private sectors are governed under the Act.

The 'pay-if-paid' and 'pay-when-paid' clauses are effectively prohibited by Irish Act by integrating the European Union's Regulation on Delay Payments in Commercial Transactions. And also, similar to the UK Act, a procedure for speedy settlement of delay payments through adjudication has been introduced by them. Moreover, in the absence of contract between the related parties i.e. between main contractor and sub-contractor or sub-contractor and sub-sub-contractor, the Minister is allowed to establish a Schedule of default contract terms ("The Need for Prompt Payment Legislation in the Construction Industry", 2013).

2.4.2 Key Provisions of Security Payment Act

Accordingly, after going through few Acts; Building and Construction Industry Security of Payment Act 2009: Version 10.12.2011 of 2011, Building and Construction Industry Security of Payment Act: Act 15 of 2002 of 2002, Building and Construction Industry Security of Payment Act 1999 No. 46 of 1999 and Construction Industry Security of Payment (Amendment) Act 2006 of 2006, enacted for construction disputes, the key provisions of the Acts now in force in different States can be summarized as follows. Time frames agreed for relevant provisions in the Act in different states are different in State to State.

➤ **Construction Contracts are not allowed to be in use out of the Act.**

Construction Works cannot be contracted out of the provisions set out in the Act. Any contract provision to modify or exclude the process of the Act is prohibited.

➤ **The Act applies to all forms of contract including verbal agreements.**

In accordance with the current practice, the Act, whether it is public or private, in writing or in verbal, applies to all construction contracts.

➤ **Construction Work is clearly defined.**

Type of Construction where the Act can be applied is clearly defined. However, certain types of construction work could be excluded by particular conditions.

➤ **Rights to Progress Payments**

With the following rights and obligations established by the Act for payment issues, provisions provided in the construction contracts are superseded. If the contract is silent on progress payments, a legal right to regular progress payments is provided by the Act.

1. The contractor has the right to make progress payments at a minimum on a monthly basis and receive the payments within an agreed period of time in the Act.
2. The amount of entitlement by the party or person in reference to the construction contract to be agreed.

➤ **Valuation of Construction Work**

In following situations where, the contract does not include a contract price, does not include any other rate and contract is silent on variation procedure to the contract, construction work carried out under the construction contract shall be valued under the above provision of the Act. And further, the method of estimating of rectifying defective work is also included.

➤ **Due Dates for Payments**

If the contract makes no express provision with respect to the matter, the claimant is entitled to receive the payment within an agreed period of time in the Act after payment claim is made under same provision as mentioned

above. Further an interest is payable on the unpaid amount of progress payments at a rate fixed in the Act and also lien action can be exercised if a progress payment is due and payable.

➤ **Contingent Payment Clauses**

Pay-when-paid or Pay-if-paid provisions are now unenforceable by this Act. If further clarified, Pay-when-paid or Pay-if-paid provision of a construction contract has no effect under the contract.

➤ **Payment Schedules**

Under this provision, the response to a claim under the Act shall be given by the Respondent by providing a payment schedule within agreed period of time. If the Claimant is not satisfied with the payment schedule, it shall referred to Adjudication as provided in the Act within specified period of time. And if the Respondent did not provide a payment schedule and/or did not make the payment within the legal time frame, he becomes liable for the full amount claimed.

➤ **Adjudication of Payment Disputes**

As mentioned above, if the Claimant is not satisfied with the payment schedule or if a payment schedule is not produced or payment is not made within the legal time frame, application for adjudication shall be made by the Claimant within specified time frame. It shall be,

- In writing
- Made to an authorized nominating authority
- Be within specified time frame in the Act
- Be accompanied relevant fees determined by authorized nominating authority (Amount of maximum fee shall also be established) and
- Be consist of all relevant documentary evidence regarding the claim

Further, a copy of the claim shall be forwarded to the Respondent and it is the duty of the authorized nominating authority to refer the application to an adjudicator as soon as possible.

Eligibility criteria of adjudicators, Appointment of adjudicator, Adjudication responses, Adjudication procedures and Adjudicator's determination are also provided in the act. The Claimant also is allowed to make new application if the adjudicator who accepts the application fails to determine it within given time frame.

➤ **Payment of Adjudicated Amount and Consequences of not Paying Adjudicated Amount**

The determination by the Adjudicator is final and can be enforced in court. It means that the Adjudicator's determination cannot be appealed. The adjudicated amount or monies due for payment schedule can be recovered by enforcing the determination in relevant court as a debt owed. If the payment is not made under the Act, the works can be suspended or the progress of work can be reduced by the Claimant until such payment is made by the Respondent. There will not be breach in contract if such step is taken by the Claimant.

2.5 Parties in the Construction Supply Chain and Potential Situations of Payment Process under the Act

The terms of “Claimant” and “Respondent” mentioned in above provisions shall be referred to a person or a party to the dispute under the Act and it may be Owners/Clients, Consultants to The Owners/Clients, Main Contractors, Sub Contractors, Sub-Sub Contractors, Suppliers and Workers or Employees. For Owners (May be a company or other organization or a person) and all types of contractors (May be a company or other organization), the professionals like Project Managers, Architects, Engineers, Quantity Surveyors, Contract Administrators, Accountants and Lawyers are engaged in as workers or employees.

Under the provision ‘Rights to Progress Payments’, the Contractor is entitled to obtain monthly payment for the construction work carried out by him for a minimum amount of value of the works as provided in the Act. Then the valuation of the work or any other variation work to the original scope shall be evaluated under the provision ‘Valuation of Construction Work’. Since, the main objective of the Act is to secure the payments of who are at the bottom of construction supply chain, it can be discussed under below hypothetical ways (Security of payment act flowchart).

First let’s assume the process is simply flowing as below according the Act without any delays to the time limits enacted and any objections from the each party to one another regarding the responses etc.

Situation 1

Accordingly, below is the best possible scenario which can be happened under the Security Payment Act. However, if this does not happen, there may be situations where sometimes respondent is unable to provide the response within stipulated time and the claimant objects to the proposed payment response.

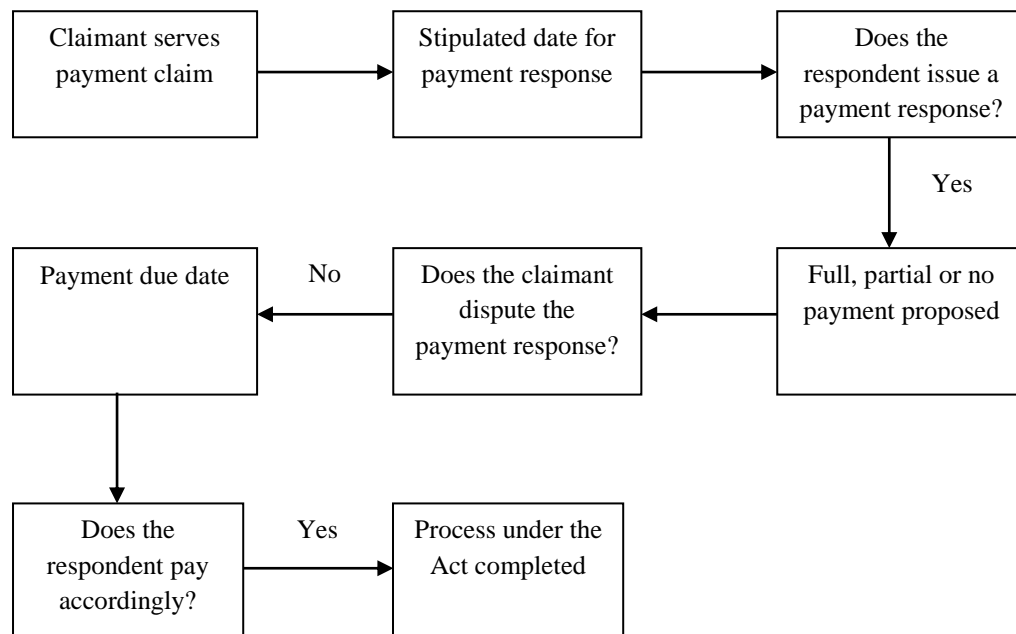


Figure 2: Situation 1

Situation 2

Under situation 2, a dispute will be arisen between both parties due to not providing payment response or claimant disputes the provided payment response. But still, both parties mutually settle the dispute within the period allowed in contract and the payment is made by the respondent accordingly. (Refer Figure 3, p.26)

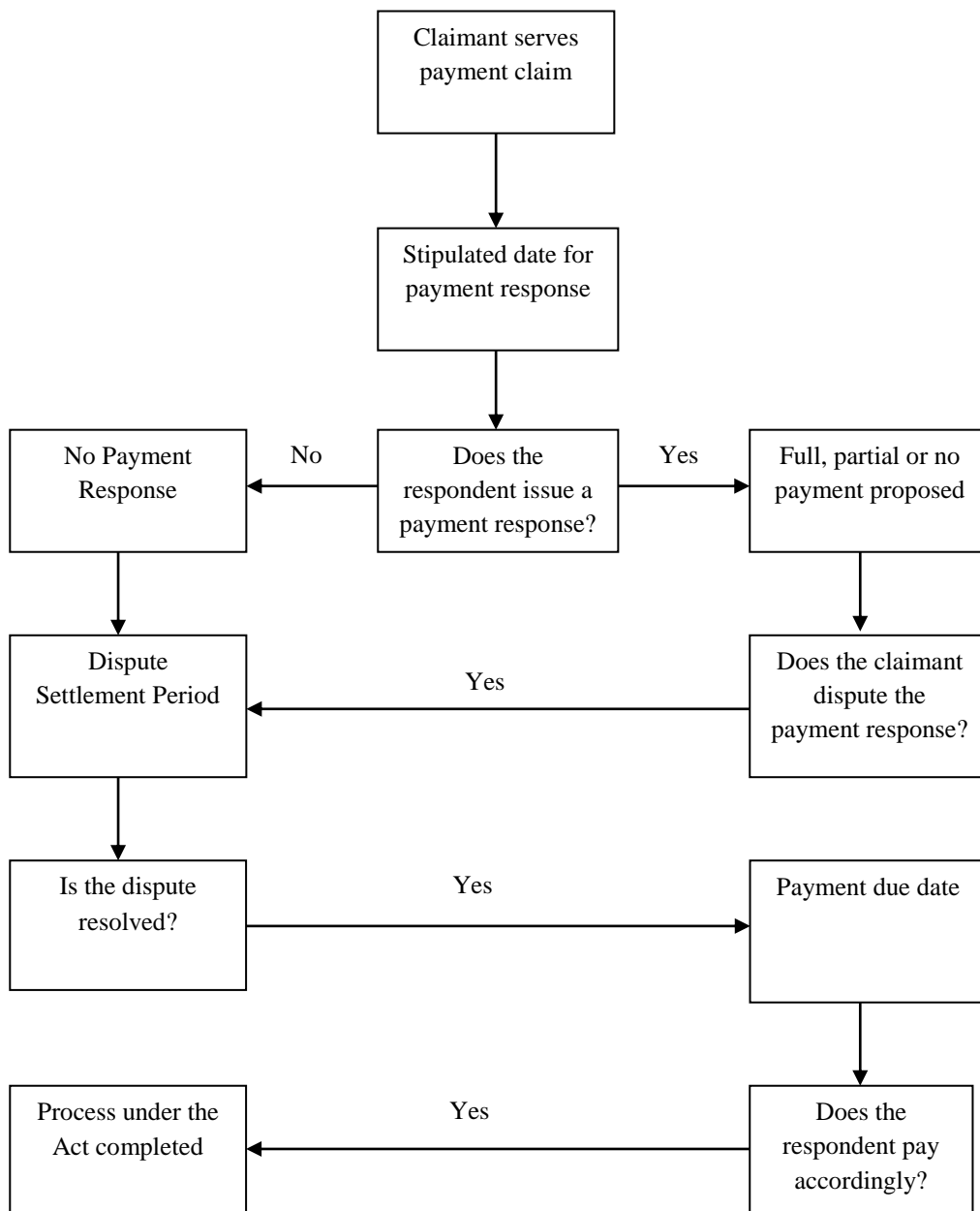


Figure 3: Situation 2

But as in above two situations 1 and 2, if the payment is not made within the stipulated time or the dispute is not resolved within the stipulated time, the claimant is entitled to issue notice of intention to adjudication under this Act and no payments will be considered on bona fide intention of the claimant (Mulcahy, 2012). The

relevant additional steps that can be taken by the claimant can be depicted in situation 3, 4 and 5.

Situation 3

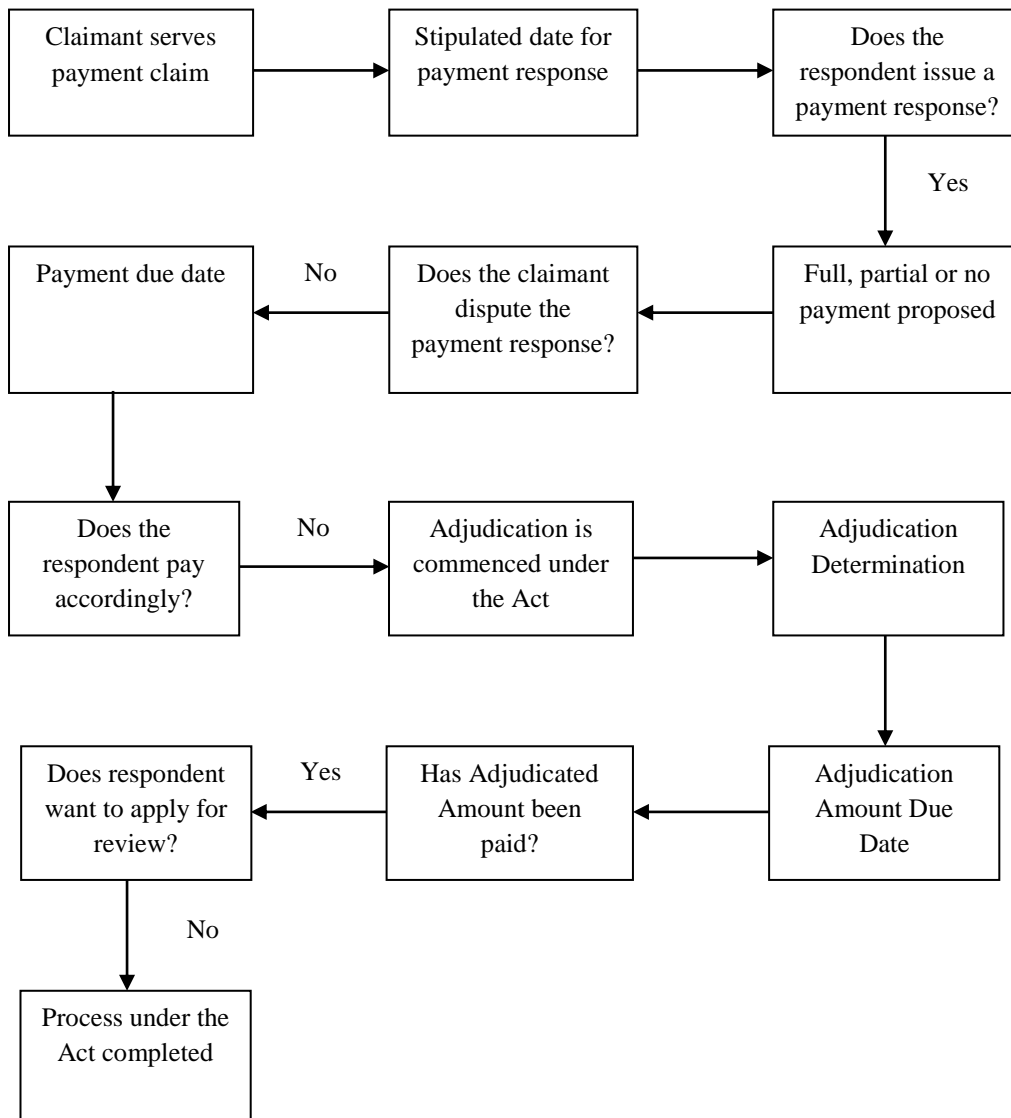
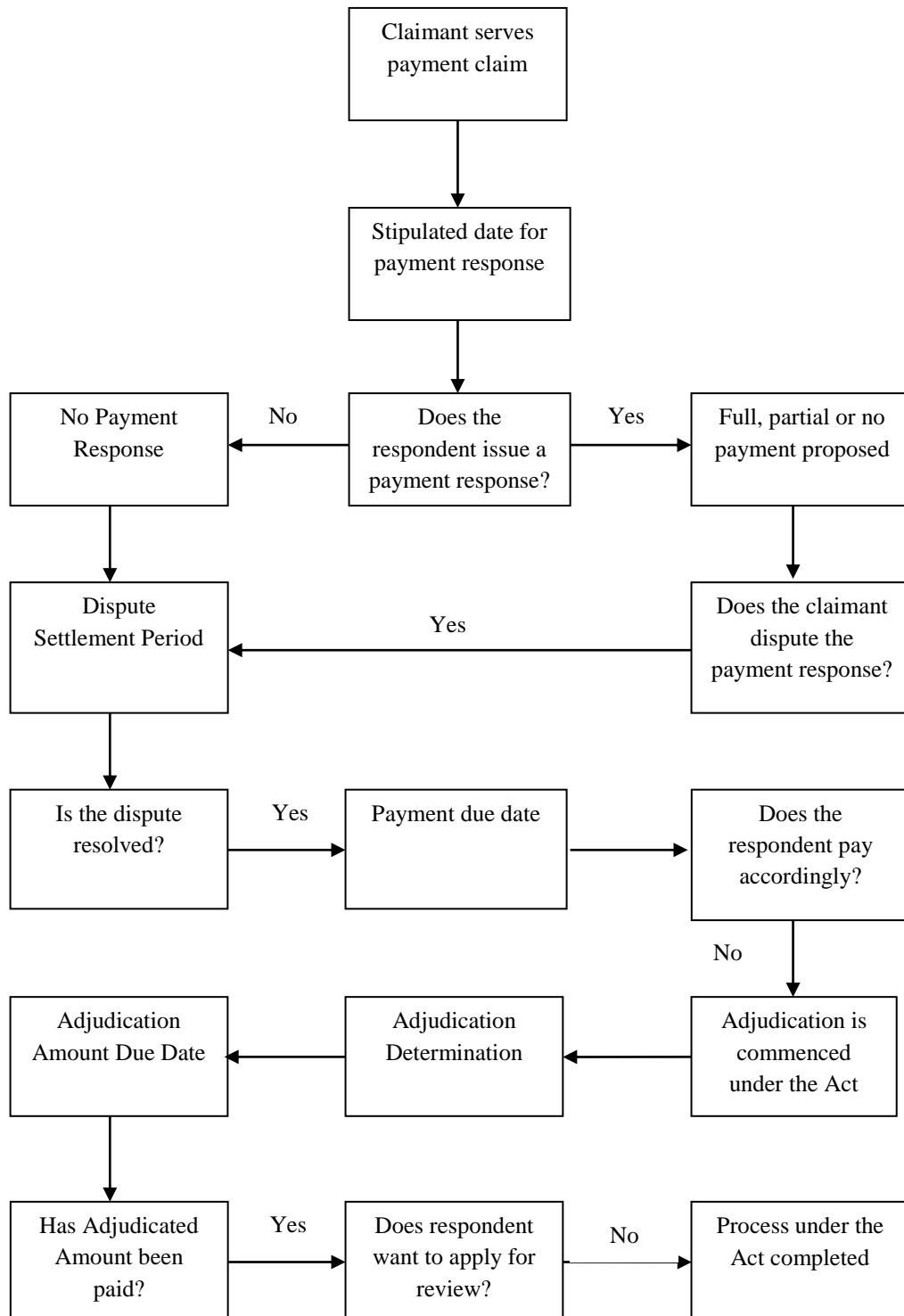
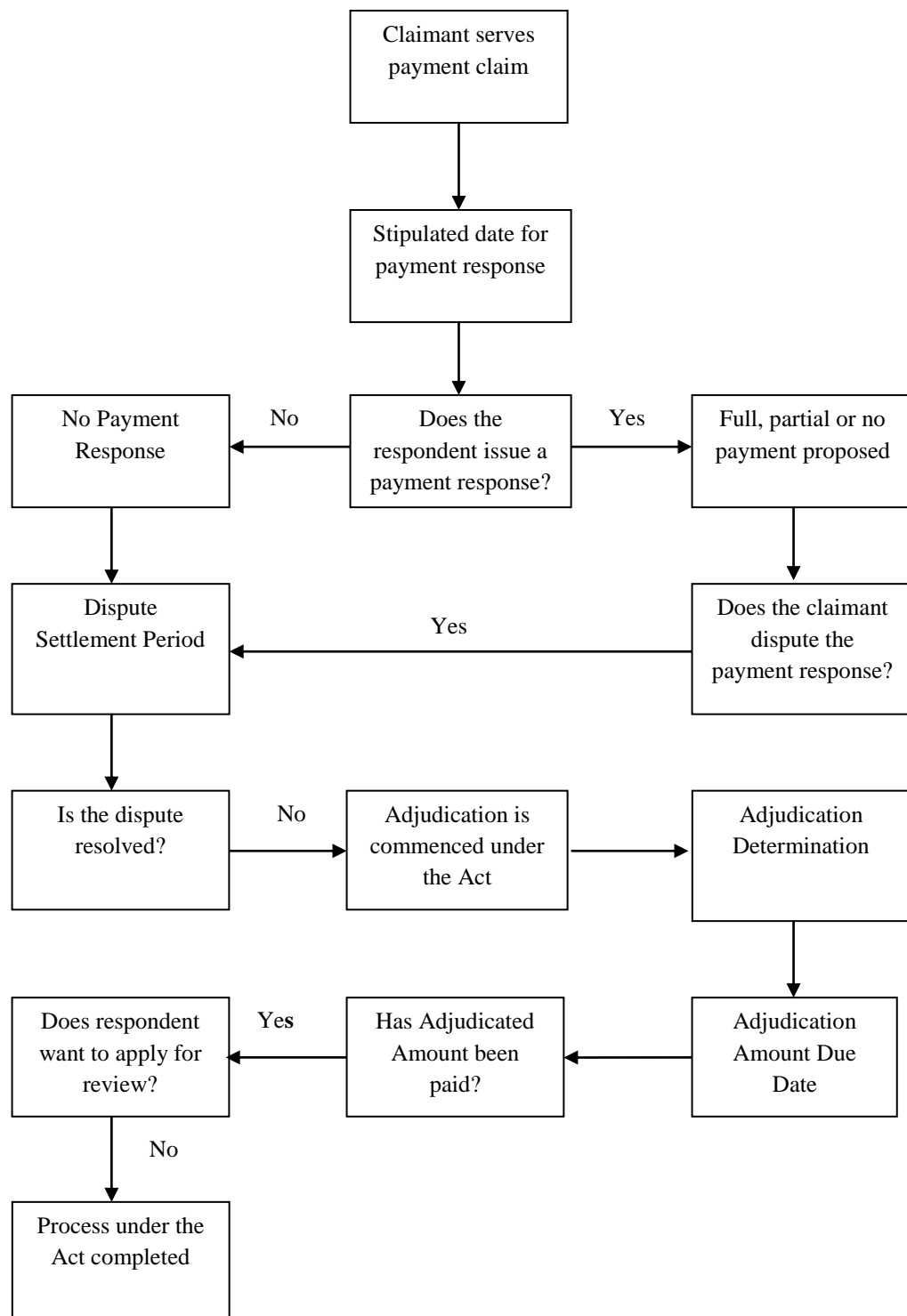


Figure 4: Situation 3

Situation 4*Figure 5: Situation 4*

Situation 5*Figure 6: Situation 5*

In the above situations 3, 4 and 5, if the respondent do not pay the adjudicated amount within the stipulated due date, the following steps can be taken by the claimant.

- Claimant is entitled to issue a notice to suspend the works or services.
- If the respondent makes the payment to the claimant after suspension, the claimant shall commence the works.
- Process under the Act is then completed.

But in the same situations, if the respondent wants to apply for review the determination following additional steps to be added after accordingly.

- Respondent applies to Authorized Nominated Body (ANB) for review and ANB will copy it to the claimant.
- Once the adjudicators are appointed and confirmed, review determination will be announced with a due date.
- According to the determination, if the either party (claimant or respondent) pays the adjudicated amount, the process under the Act is completed.
- If, it is the claimant who shall pay to the respondent after the review, and he does not pay to the respondent, the respondent shall recover the money from claimant under contractual provisions or common law.
- If it is the respondent who shall pay to the claimant after the review and he pays the amount, the process under the Act is completed. But if does not pay again at this stage also, the claimant shall issue notice to suspend as mentioned above.

These all types of situations can be depicted as attached Security Payment Flow Chart (Security of Payment Act flow chart) (Refer Appendix 02).

2.6 Nature of Potential Effects to the Parties in Construction Supply Chain under each Situation

Generally, the nature of any effect by the each provision described above can be elaborated as below but all the effect cannot be discussed separately to each provision.

The first area of exposure is that each party, except employees, is working for the other party under a commercial contract i.e. is not working under an employment contract. But, with the exercise of Security Payment Act all these commercial contracts are subjected to the Act and they are supplying goods and/or services for use on a construction project under the provisions of the Act also (McDougall, 2012). Accordingly, the parties at the bottom of the supply can use the Act to obtain progress payments and are more secured under this act in terms of money and their cash flow.

As same as above, but without, any written agreement also, people are engage in business. In such kind of verbal agreements, again the parties at the bottom of the supply chain are more secured in terms of money and their cash flow.

The Act itself defines the Construction Work and sometimes exclude certain type of constructions by terms and conditions. Since there is an exposure to exclude certain type of works, the enactment of such provision shall be clearly established because it may be consist of unnecessary or unfavorable exclusions to the Construction Work. As this Act is mainly to protect the cash flow of the parties in the bottom of the supply chain, it would be enacted keeping that in mind.

Since this Act is mainly about securing the payments to the parties who are in the bottom of the construction supply chain, the let's take above situations separately to discuss the effect of the process to each party.

Situation 1

Generally under the Act, once a payment claim is submitted by the Claimant, the Respondent shall provide a payments schedule under the Act within specified period. In situation 1, the process is really smooth. Once the payment claim is served by the claimant, the respondent issues a payments response within stipulated date for the payment response and there is no any objections to the payment response by the claimant. The respondent also pays (if any) to the claimant and the process under Act is completed without no disputes.

But in such situation, As per Doyle (2005), prior to the introduction of the Acts, an adequate time was available to resolve contract administration problems and deal with any issues before it leads up to a dispute. Generally, the Client focused on building the project and variations & extension of time claims were kept till the practical completion of the project. But now, the contractor can produce a claim under the Act and get the security for his money which is entitled for his work completed. As per the Act there is a limited time (For an example, in Act of New South Wales, Respondent has just 10 business days), to recognize a claim and then to prepare, settle and issue a payment schedule dealing with everything raised in the claim.

But on the other hand, this raises another question of the fees charged by Professionals who covers the overtime and weekend work needed to develop a Payment Schedule within limited time. Every claim requires a schedule and the there is a payment processes that need to be honoured. From the Client's perspective this is almost double the workload for his Consultant party employed for the project. However, with the use of Security Payments Act, this additional cost have to be covered by the Client/Respondent within his budget of the particular project (Uher & Brand, 2008).

Therefore, in this situation, the respondent, (Client for main Contractor, Main Contractor for Sub Contractor or Sub Contractor to Sub-Sub Contractor) will have to bare this cost effect by himself. Since there is no any other dispute or objection raised, the relationship or the mutual understanding between the parties are protected.

Situation 2

In situation 2, again the relationship or the mutual understanding between the parties is safe because, though a dispute is occurred, it is mutually settled between the parties. But the respondent will have to bare additional cost of providing payment response, in case where the respondent provides one and it is disputed by claimant, within tight time schedule as described in above situation 1. Further, if no payment schedule is provided and the claimant has no objections (unlikely to happen in real in the industry), there won't be any conflicts between the parties due to the process.

Situations 3, 4 and 5

As above described, there may be situations where (if an Adjudication is engaged in), the respondent needs to complete an adjudication response and the Adjudicator makes an award that is enforceable in the Courts. As such "Respondent" (the party who is defined as Client in a commercial agreement) will have to end up with paying additional cost if he could not be able to meet these time lines. Wise versa, the "Claimant" (the party who is defined as Contractor in a commercial agreement) will be entitled to obtain additional cost as an interest or full claimed amount.

Further, according to Submission to Australasian Procurement and Construction Council on Security of Payment in the Building and Construction Industry, the financiers are not protected from the Act meanwhile many of the developers are depending on limited financial resources to operate the business (2012). Previously, the value of work done and the amount of payment for contractors were sensibly foreseeable and considerable time was taken to make a payment if dispute aroused.

But now the situation is likely that the developer or employer may be suddenly liable for huge payment which would exceed the value of work done due to adjudication decision. And sometimes the developer may not be financially capable of paying such amount suddenly (Doyle, 2005).

At the same time as in Situation 5, for a situation like where the Client (Respondent) have to spend several millions in respect of a loss of Adjudication and is experiencing difficulty to recover money, there is a question how exposed are the Consultant party to the Client and the professional indemnity due to not responding for claims properly.

Nevertheless, since adjudication has huge involvement under this Act, there may be certain barriers or objections to introduce such an Act in Sri Lankan Context. Accordingly, following barriers can be identified to enact Security of Payment in Sri Lanka.

- Jayasinghe and Ramachandra, (2016) emphasizes, for enacting Security of payment legislation in Sri Lanka, real request has to be emerge from the industry itself. However thus far this has been not occurred. Because the real meaning of introducing such legislation is to ban some unfair payment terms such pay when paid, pay if paid terms used by big contractors and developers. Enacting such legislation will drop such benefits gained by those parties.
- After introducing SOP Act, adjudicator's decision become legally enforceable which have to be honored by the parties to the dispute. Therefore, sufficient number of competent adjudicators has to be available to cope up the demand for adjudication.
- As highlighted by Gaitskell (2007) to experience the benefit of statutory adjudication, there needs to be a court system which is willing to enforced adjudicator's decision.

-
- Possible huge reluctance from lawyers may be occurred, since they have very less opportunity to participate in adjudication.
 - Additional huge cost for Adjudication process
 - The additional cost incurred to Client (Respondent) due to Consultant/Engineer not provided payment schedules within due dates. There shall be recovery method for Respondent (Client) in case of where the Consultant on behalf of Client, failed to provide payments schedules within time limit given in the Act.
 - Developer's (Client) finance agent may be in such a position where the progress payment amount is not predictable under this Act. Because, the Client may suddenly be liable for a payment of large amount as consequence of an Adjudication.
 - Additional cost for fees charged by Professionals to develop a Payment Schedule within limited time.
 - Mutual understanding, reputation and relationship between the parties might get harmed by applying for adjudication determination under the Act.

However, there are benefits to the construction itself by such act is due to the reduction of payments delays which will result in terms of money, time and quality. It would be impractical to divide the effects under each party because construction itself is circle where if one party is secured automatically it will secure the every other party in one or another way. They can be summarized as follows (The need for Prompt Payment Legislation in the Construction Industry, 2013).

1. Increase the volume of professional workforce or employment in the construction Industry.

Generally, contractors have to employ large number of professionals in his staff such as engineers, technical officers, quantity surveyors, supervisors etc. Since Contractors depend on cash-flow, the risk of getting interrupted the cash-flow will limit the amount of workforce that a Contractor can employ. But with reduction in payment delays will increase contractor's capacity to employ larger volume of professional workforce.

2. Increase the labour force in the Construction industry.

Payment delays which lead to skilled and unskilled labour shortage in the country that actually the current situation in Sri Lankan construction industry. No of people who want to join the industry as skill and unskilled labour have been suddenly dropped down and labour rates have been considerably high which is a great risk for contractors. But securing payments through an Act like this will help to overcome such situation in near future.

3. Increase the investments in training opportunities for the workforce which would finally leads to the quality and timely output through job satisfaction.

The construction workforce shall be provided periodical training opportunities, employee welfare facilities and etc. to obtain higher productivity. It will increase the quality of the end product and save the time for further developments. But due to delay payments, the contractor's capacity to commit for such investments will reduce.

4. Increase the investments in internships for the construction industry where roughly 40% of all apprentices are trained as per the reports.

More contractors are encouraged by the reduction in payment risk to make apprenticeship investments. Accordingly it will directly increase in the

number of apprentices and both the construction industry and the overall economy will be benefitted.

5. Increase the investments in new technologies, machineries, management techniques and developments to increase the growth of industry.

When concerning the construction industry, new technologies, machineries and management techniques around the world shall be adopted by the contractor to survive within the industry. In Sri Lankan industry, with compared to other countries, the growth is far behind. A reduction in payment delays will encourage the local contractors to invest on new technologies which finally result in increase of productivity.

6. Money allocated or received for a particular project will not share for the execution of other projects in hand of the Contractor.

Construction is always a chain. Due to a payment delay by 'X' will impact 'Y's progress and quality in a particular project and 'Y's delay will lead to somebody 'Z'. But with the exercise of Security Payment Act this can be overcome.

7. It will reduce unnecessary delays due to payments disputes and save money value of time for each and every party engaged in the construction industry.

Security Payment Act will reduce the payment disputes and thereby saves the time and money value of the time for each and every party engaged in the construction industry.

8. Security Payment Act will ensure that monies spent on construction work are used to remunerate the people who actually did the work.

Specially, public money should not be held back from the Contractors who actually performed the work. Therefore, its government's duty to spend

money only where it is intended to be used when concerning the public projects.

9. Reduction of Payment risk will increase the bidding capacity of the contractor within his category.

Contractors' ability to tender, re-invest and obtain further work will be limited by payment risks which is not good for the economy. Since the Security Payment Act protects the payments, contractors will be bidding on more work. Accordingly, the competitiveness of the industry will increase and ensure high quality work at the best lowest cost.

10. Exercise of Security Payment act will lead to the lower construction costs by removing additional premium included for payment delays.

11. Provide a path to a healthy economy through a well-structured construction industry.

Finally, it is accepted by the professionals and researchers that a well-structured construction industry is a backbone of a healthy economy since the construction industry has a considerable contribution to national economic growth.

2.7 Summary

This chapter has mainly discussed about the payment delays in the construction industry and Security Payment Acts which have been enacted by other countries to minimize those delays and to protect the cash flow of the parties who are bottom in the construction supply chain. Further, this chapter explained potential provisions of Security Payments, identifies the parties who are affected by this Act and finally discussed the potential effects by the Act to those identified parties. In the next chapter, chapter three, the Research Methodology which is to be adapted for data analyzing and results of analyzing data will be discussed.

3.0 RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the research methodology adapted for the study is discussed under three phases. Each phase is discussed separately according to their related issues. The key issues of this chapter are Research Approach, Data Collection Techniques, Sample Selection and Data Analysis Techniques.

3.2 Research Design

According to Owens (2002), before data to be collected or analyze to be started, a research requires to have research design. Only a work plan itself cannot be a research design. A work plan includes the procedure to be followed in order to complete the project. But it should be originated from the research design. The research design will ensure that the initial question problem is answered unambiguously with the evidence obtained.

Moreover, to obtain significant evidence, the type of the evidence required to answer the problem shall be specified. For an example, the question may be to test a theory or to evaluate a phenomenon. Therefore, the type of information or evidence required shall be clearly specified. A research design basically deals with a logical problem. If further it is explained, an architect needs to know the requirement of the developer of which type of building he needs to develop and its uses etc. before working on the building plan. The Work plan also flows from this concept. Similarly, selection of sample, method of data collection and design of questioned to be asked are all depend on which type of information you need to answer the research question (Owens, 2002).

The logical sequence of research design for this study can be explained under three phases (Figure 7). The following figure 3.1 depicts how the research design has been developed in order to answer the research question.

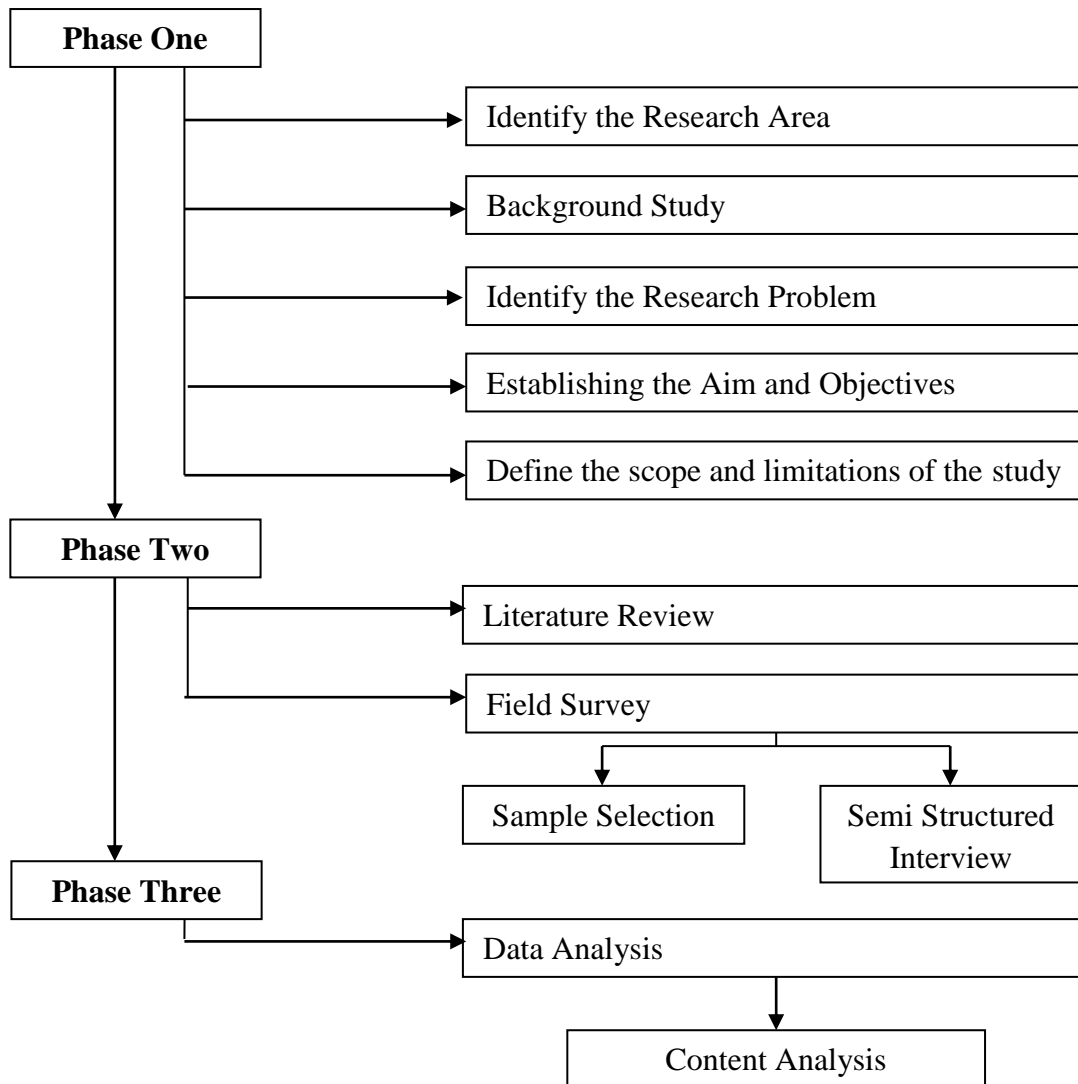


Figure 7: Research Design

3.3 Phase One

In phase one, firstly the research area was identified as the “Delay Payments” which has been a practical problem to construction Industry. Then a background study was carried out for further clarification of the selected area and research problem was established.

3.4 Phase Two

3.4.1 Literature Review

The initial step was to identify the potential provisions of a security payment act and its effect to the parties of construction supply chain under different situations provided by the act thorough which may influence the policy makers to bring a Security Payment Act to Sri Lankan Context. Whatever the findings and justifications identified though the literature Review are clearly elaborated under chapter two of this study.

3.4.2 Field Survey

Research approaches can be classified in to two as Quantitative (Positive Paradigm) and Qualitative (Interpretive). Surveys and experiments are basically coming under quantitative approaches while case study research, ethnography, action research and grounded theory approach can be taken under qualitative approaches (Jayasena, 2008).

In this research, survey method under the qualitative approach has been identified as the most appropriate approach.

3.4.2.1 Interviews

In order to carry out the field survey, Semi Structured Interviews with pre-determined questions was selected as the data collection technique. All the factors identified through the literature review were considered in developing the base for questions of interviews.

3.4.2.2 Justification for Survey Approach

Since the purpose of this research is find out the ground condition of what was identified in the literature survey it requires the depth insight regarding the research problem. According to Yin (2009) when detailed information is required, a qualitative research can provide a distinct advantage. Accordingly qualitative research approach enables the researcher achieve the objectives of the research while answering the questions of “what is happening at the moment”, “how and why it is happening”, “how would proposed context affect current practices and outcomes” and “what are the things that has to be improved”. Therefore, qualitative research approach was selected for this research study.

Here case study approach can be overlooked as no need to go for in depth inquiry in to a current phenomenon since this is merely the first step of bringing out the importance of a Security Payment Act to the Sri Lankan Construction Context. After finding out the general view of the industry, if necessary, someone else can go for case study approaches to further influence the policy makers in this regard.

3.4.2.3 Sample Selection

The success of interviews depends mainly on the careful selection of the panel of experts. The experts should have extensive working experience in the construction industry, should be currently or recently directly involved in the construction and should have a detailed knowledge of overall construction process.

Therefore, the target population, from which the sample was selected, is the prominent professionals with at least 10-15 years' experience or more than that and who have already engaged in construction work within Sri Lanka. Professionals like Project Managers, Civil Engineers, Quantity Surveyors and Architects; who are act as Engineers to the projects etc. were targeted mainly.

For this particular study, professionals from each level of the construction supply chain which was discussed early in the study were selected as 4 from Main Contractor, 2 from Sub Contractors, 2 from Employers and another 2 from Suppliers. Accordingly total 10 professionals were interviewed for data collection purpose. Profiles of the interviewees are presented in Table No: 1 below.

No	Category of Interviewee	Designation	Experience in the Industry	Specialty
1	Contractor	Chartered Quantity Surveyor	12 Years	Grade CS2 Contractor under CIDA
2	Contractor	Chartered Quantity Surveyor	13 Years	Grade CS2 Contractor under CIDA
3	Contractor	Chartered Engineer	30 Years	Grade CS2 Contractor under CIDA
4	Contractor	Project Manager	12 Years	Grade CS1 Contractor under CIDA
5	Sub - Contractor	Manager	15 Years	GP-B1 Contractor under CIDA
6	Sub - Contractor	Chartered Engineer	More than 30 Years	Grade SP1 Contractor under CIDA
7	Supplier	Marketing Manager	17 Years	Aluminum Industry
8	Supplier	Marketing Manager	10 years	Tile Industry
9	Employer	Chief Executive Officer	11 Years	Property Developer
10	Employer	Chartered Engineer	More than 15 Years	Road Development Authority

Table 1: Interviewee Profile

3.5 Phase Three

3.5.1 Data Analysis

After collecting data the next important step of the research is analyzing the collected data. According to Tully (2014), data analysis requires categorization of data, presentation and statistical interpretation. As the research study focus on the ground condition for effects of security payment act in Sri Lanka through the collection of views from the experts, content analysis was selected as the suitable analysis technique for the research study.

3.5.2 Content Analysis

Content analysis is the qualitative analysis technique which analyses data and interpret its results as a means of describing and quantifying phenomenon (Elo, Kaariainen, Kanste, Polkki, Utriainen & Kyngas, 2014). Basically, the content analysis is classification and arrangement of speech, written text, interviews, images, or other forms of communication. In this research, content analysis was carried out manually under each situations of the Progress Payment which were discussed above in the Literature Study.

3.6 Summary

This chapter has mainly discussed about the data collection and data analysis techniques. Field Survey has been selected as the research approach with semi structured interviews as the data collection technique. The data analysis techniques adapted for the study are content analysis. The next chapter, chapter four describes the Survey Findings of this study and the findings are analyzed for each party of the construction supply pyramid under pre identified situations of Security Payments Act.

4.0 RESEARCH FINDINGS

4.1 Introduction

This chapter in the beginning, presents the survey findings collected through the semi structured interviews. Then under data analysis, the responses from each type of professionals i.e. Contractors, Sub Contractors, Suppliers and Employers will be evaluated and summarized under each situation of Progress Payments which were identified through the Security Payment Act.

4.2 Interview Findings

A pre-determined questions on the grounded theory of payment procedure in the industry and security payment act were asked from 10 individual construction professionals (Project Managers, Engineers, Quantity Surveyors etc.) under categories of Contractor, Sub Contractor, Supplier and Employer who have at least 10-15 years' experience or more than that within the industry and findings are as follows. (Refer Appendix 03 for Interview Questions).

4.2.1. Contractors' Point of View

Contractor No: 01

Normally the gap in between the contractor's interim valuation and receipt of the payment is financed by contractor's own capital or cash from other ongoing projects.

Premium is added for the construction cost for own financing projects considering the contract period because an interest should be paid for financing agency of the contractor for the loan amount decided to obtain. For employer financing projects, the markup for the construction cost depends according to the payment terms. If monthly payments are proposed in the terms and the employer's records in payments are good in the industry, actually there is no allowance for such projects to cover up

the gap between the payment request and receipt of money. If there are unreasonable payment terms in the contract, accordingly, the contract price is loaded by increasing markup. However it is not a fix rate for every project.

The cost of finance is decided according to the cash in hand, amount of money to be borrowed according to the predicted cash flow for the new project and is calculated only for the original contract period given at the bidding stage.

There was once a more than one year delay for payment, in a road project due to some political influences. Prolongation cost claim has been prepared to cover up the losses suffered due to that considering all aspects of additional costs under the contract. In that projects however, small sub contractors' payment were finalized with company own capital though some major sub contractor's payment were back to back held due this huge delay.

When considering the back to back payment terms in a contract, if the sub contract value is around 10 Mn or less, the sub-contractors are not willing to agree for back to back payments. Because these small scale sub-contractors are handling the business by depending on the periodical payments received by the main contractor. But if the sub contract value is at least around 100 Mn or more, the back to back payment terms are applied in the sub contract.

As speak of early payments or prompt payment in a project, Asian Development Bank or World Bank funding projects may be releasing the payments early than the traditional time limit. But when we consider the local government funding projects, the minimum is 35 days period to get the payment under CIDA conditions or any specific time period (but not less than 35 days) as per the contract terms. Although the project is funded by external financing organization to the government, often the government's collaboration to the payment procedure is always getting delayed.

In bidding, the nature of the client is often considered and the tender is finalized accordingly with the past experience of the particular client. If the client has records in prompt payments, the bid price is adjusted with proper cash flow planning during the bidding stage.

A Security Payment Act seems good for the industry. Because, sometimes, contractors bare the loss due to payment delays to maintain the relationship with client and in the view of getting future jobs from the same client. Clients being holding down the payment will break the cash flow of the bottom line. From such an Act, all will be treated equally and consequently, all will be benefitted. Otherwise always, powerful contractors and clients are winning and the parties who are in the bottom will suffered.

If talking about challenges in implementing, it would be not practical for small contractors who are doing work around or below 10 Mn because they won't be willing to go for adjudication. And then, lawyers with construction knowledge and construction professionals like engineers, quantity surveyors with law knowledge are less in the industry to proper execution of the Act. Therefore, if this Act to be implemented, a trail should be done along with CIDA and get the feedback before introducing or implementing the Act for clear and specific documentation of the provisions.

Contractor No: 02

The gap in between the contractor's request for interim payment and receipt of the money is initially financed by the advance payment received and by bank loans (Over drafts) in the critical stages of the project execution. Usually no provision is allowed for any project when bidding but if the project is directly funded by the government, the markup will be increased for such projects. As their experience, the payments from ADB funded or foreign funded projects are often received before the

allowed time period under contract. But this is not a fix rate and according to the client and allowed time period for the project also, this markup will be varied.

Recalling any projects for which the payments have been delayed for the longest period of time is for 6 month delay for a contract period of 6 months. The average payment period for that project is, 2 months, considering all payment delays. And there are more projects with delay payments which are yet to be paid and these types of delays often occurred under local conditions of contracts. Internal contracts always come up with proper financing arrangements and therefore, under those contracts, payments delays are rarely occurred.

Considering the projects they are doing, the above project is not specifically big a projects they handled. So the extra expenses due to this delay was managed by reducing full dedicated site management & machinery and specially within the considerable high rates for that particular project.

When it comes to back to back payments in the sub contracts, most of the sub-contractors are disagree with back to back payment clauses. But yet, those clauses are put in the sub contracts, though it is difficult to implement where main contractors' payment get delayed more than month.

Under international contracts, though it is mentioned the payment period as 56 days, often the payments are received within 25 to 30 days. On account payments also are received at the end of the year, within one week's time, considering a % value of the work done to maintain the cash flow and records of project progress.

So such kind of foreign funded projects, the contractor usually assumes the timely payment at the time of bidding. Or else if the payment is delayed, the contractor is assured with the past experiences that of the interest liable to pay for him is undoubtedly paid by the client. Considering that and due to these types of contracts

are very competitive, the markup will be thoroughly concerned and decided to keep up the competitiveness of the bid.

When it comes to security payment act, it would be difficult to implement such act in Sri Lankan context. Because mainly, the most of the big projects are funded by the government and ultimately they have to be liable for the delays occurred in payment procedure. And due to complex procedures in the government and the political influences, often the payments are getting delayed for government funded project.

Since this type of act is not new to world construction industry and several other countries have successfully implanted this act, it seems that a Security payment Act would be useful our context too. Though at the early stages, it would become difficult, with the time, the client will get the benefit of money due to competitiveness of bids by increase of bidding pool.

However, here in Sri Lanka, most of the projects are conducted under political agendas. If there are no money allocated even, with that political power, projects are initiated. But with implementation of this act, that type of projects where no money is allocated have to be held back. Therefore there will be construction drop at the initial stage of implementing this act because as said above, government or any other party cannot initiate a project without proper funding arrangement.

Contractor No: 03

Similarly as others also specified the gap in between the contractor's request for interim payment and receipt of the money is generally financed by over drafts, short term loans and by cash from other ongoing project's in the company. Depending on the nature of the client, the nature of the project and workload in hand, sometimes the profit margin is adjusted for if any case where payments might get delayed. As an example if there are enough work to handle, the margin will be increased for new jobs wherever possible. But most of the time, since the competitiveness of the bid is

more important in getting a job, they do not add any additional amount for such delays or to finance the gap in between payment request and receipt of money. Definitely there won't be a fix rate for that though they sometimes allow higher markup as said above. The finance cost during such period, will be bared within the profit margin for the project.

According to them, there are couple of projects which were completed one year before by the time of this interview and the payments are still pending for the contractor due to finance problem of the client. The project is governed under CIDA conditions of contract by a foreign + local joint venture. But they have managed to pay almost all the sub-contractors and suppliers except one sub-contractor. In a situation like this, they are trying to get the sub-contractors and suppliers agreed to be paid once the main contractor paid. But when it comes to small scale sub-contractors, they can't wait until the main contractor is getting paid and actually they do not agree to back to back payments.

As well as, there are also couple of projects for which the payments were received in time i.e. within 2 weeks from the application of the interim payment. But the contract period for that particular project was short i.e. 3 months. Of course it was anticipated at the time of bidding and adjustments to the contract price was done accordingly. As earlier discussed, wherever possible, the adjustments to the markup for construction cost are made according to the previous experiences of the payment records of a particular client.

As per their point view, they feel that if a contractor, a sub-contractor or supplier go for adjudication against payment delay or any other dispute, the relationship between the parties will be disturbed reducing the chances of getting future jobs from that particular client. Again in Sri Lankan context most of the clients including specially the government, they do not pay on time due to their financial difficulties. Since this has to be implemented through the government, first of all they have to have proper financial plans for future development. If they are ready to such long term

commitment, this can be easily implemented for the betterment of all parties in the construction supply chain.

Contractor No: 04

When compared to other contractors, in the view of this contractor, any contractor does not need to go for bank facilities or seized money from other ongoing projects to finance a particular project during the period of gap in between the contractor's request for interim payment and receipt of the money in where an advance payment is paid at the initial stage of construction as an interest free loan and material at sites are also paid under conditions of contract. Though, if contractor buy materials on credit basis, true that the he might not get the advantage of cash payments, but it is uncountable considering the final profit to be gained at the end of the project.

According to him, the client shall not be penalized due to poor management of construction and finance by the contractor. There shall be game plan with maximum benefit to the contractor concerning the advance payment received at the initial stage. For an example, a contractor can use 50% of the advance payment for initial mobilization and balance 50% (as a revolving credit account) to pump the cash flow including the time gap between advance to 1st interim and then 1st interim to 2nd interim etc. At the same time, the contractor's project management skills shall be smart enough to show the progress of the works to match with financial requirement as per the predicted cash flow.

As per their experience, there are projects where the payments get delayed by a considerable time. During the last year they had a delay of 6 months for a project with 3 years contract period. Not all the payments were delayed but only 1 to 2 payments were delayed by around six months period. But still in such a situation they have had the advantage of getting payments for material at site and balance advance pumping amount which was allocated as revolving credit account to pay the sub-

contractors and at the same time could maintained a 90 days credit period with suppliers.

When it comes to back to back payment terms for sub-contractors, sub-sub-contractors and suppliers, due to monopoly of main contractor within the industry, parties at the bottom of construction supply chain have to agree such conditions in payment process. If we concern the standard forms of contract, in Sri Lankan context, there are no standard forms of contract to address the main contractor – sub contractor obligations though international forms of contract already fulfilled that gap. As such, in local industry, the downstream parties are ruled by contractor's monopoly.

In addition to above, delay payments, there are also good pay masters who release early payments than the specified time period. For an example, they had projects where the payment received within 28 Days. And further they added that this advantage of getting early payments by such paymasters is really considered at the bidding stage. Because it is worth enough to win such project even at a low markup rather messing up with late payments.

Security Payment Act may be difficult to implement due to the political influence in the industry, financial inconsistency of the government and the procedural path that has to be followed within the legal frame work proposed. It would be better to introduce a unconditional on demand payment bond to the value of total contract sum by client where the contractor can encash the money if the payment is delayed more than specified time but limited to the value of particular progress payment and previous paid amounts. Because it would be convenient than going through such a legal process under a legal frame work. Further, this is not only for the contractors and other bottom line parties but for the consultant too who are getting affected by clients payments delays as well as the contractors.

4.2.2. Sub-Contractors' Point of View

Sub-Contractor No: 01

Since they are a piling contractor, due to short duration of the projects, they always try to reduce the payment period at least up to 14 days at the early stage of bidding (In pre tender meetings). Often in most of the projects they get the payments within 28 days period. And sometimes there are good paymasters who pay within just 7 days too due to the short contract period as said above. However the average payment period would be 28 days from the request of the payment.

Usually, they will go for loans or own capital to finance the project until the money is in the hand for request of an interim payment. However, any premium will not be added to the contract price to cover up the finance requirement in between the payment request and the receipt of money. If such allocation is set, as per their point of view it would be difficult to win a job in competitive bidding.

As per their experience there are particular projects that payments are still pending which are around Rs. 150 Mn and more than one year delay. In such projects always have to go for bank loans and utilized own capital as mentioned early also. The payment for suppliers and sub-contractors, the maximum credit limit from the suppliers are negotiated and payments for sub-contractors are held back to back. Often moneys received for other ongoing project are seized to such project and therefore the execution of those projects is also get disrupted. Accordingly, for a 6 month contract, the average payment period would be around 3 months for such project.

Generally, back to back payments are not entertained much due to short durations of the projects. As discussed early also there are good paymasters who practically understand and release the money within a week. So under such paymaster those type of contingent payments clauses are not entertained. When considering the

suppliers, usually the maximum credit facility is obtained for material supply if the money is not received on time. Then the advantage that a contractor get from cash payments will not be received under credit facility. Therefore that disadvantage has to be bared by the contractor if any payment is delayed by the client. And sometimes these supply contracts are also automatically subjected to back to back payment though it is not contractually agreed.

As per their view, security payment act is very important for contractors, specially, for Sri Lankan context where client is dominant and contractor to suffer always. With the experience in the industry, they have also discussed with CIDA to initiate a security for contractors for delay payments. They propose to introduce a bond by client for delay payments where the contractor can encash in a situation of a delay payment or suspend the work until payment is received by the contractor.

But in meanwhile they would prefer not to go for adjudication for each and every dispute or disturb the relationship between the parties because contractors always try to keep the mutual understanding to work with particular client in future too. Further they added, sometimes only the advance payment and money for only one interim payments are received for some projects. The balance work was fully funded by themselves from their own capital and bank loans.

Further as per their view, all major contractors, small contractors and all have this issue of delay in monthly payments. This kind of delays in payments are finally resulted in a loss to the contractor, specially, in the projects with foreign client who once does the job and leave without paying.

Sub-Contractor No: 02

This particular company selected is renowned and well established for aluminum fabrication of the industry. As many of the special sub-contractors like piling, electrical or fire etc. most of the time, these sub-contractors have short periods of

contracts. Accordingly, they mentioned that they are very interest in working with clients who have sound financial capacity. However, in most projects, they have to go for bank facilities to finance this gap in between the request of the payment and receipt of the money. But as discussed, any interest or additional cost of finance this period is not included in the bidding prices due to higher competitiveness in the industry.

According to their experience, there are projects in which payments are getting delayed most of the times. For an example, during last year, there was a project in which a payment get delayed by 6 months. The disadvantage of this type of delay is, as mentioned earlier also, being short period contracts i.e. 4 Month Contract, it affected adversely to the whole project of sub-contractor. The main contract was between a local major contractor and the government. Therefore, the sub-contractor has spent his own capital to run that project and as this interview was carried out the payments were yet pending.

When concerning the back to back payments for the sub-sub-contractors and suppliers, it was considered as most impractical thing for them because in aluminum industry, the competitiveness is considerably high.

In addition to above delay issues, there are few projects for which the payments were received in time i.e. within average 14 days of submission of the payment request. And obviously the bid price was adjusted according to their previous experience with that particular client, i.e. main contractor.

The Act of “Security of Payment” is not new concept to the world industry as he mentioned. Such type of act will be very useful for major contracts but difficult to implement on short term contracts. Because, in a short term contract if the both parties are stuck in adjudication process, unnecessarily the time will be consumed resulting further additional time and cost specially, to the small scale subcontractors.

As they proposed, the higher advance amount paid for such type of short term contract will be useful rather than subjecting to a legal frame work.

4.2.3. Suppliers' Point of View

Supplier No: 01

Generally, they have a credit period allowed for each customer evaluated under the capacity or nature of particular customer. But still any customer is failed under their evaluation criteria to get the credit period, according to the industry experience and understanding of the company management, they can decide to allow credit periods to particular customer. Or else they initially request advance and the balance payment after supply of the material. Additionally, local Letter of Credits are also opened and bank guarantees are demanded as payment methods in the business.

Since they are at the moment well establish supplier in the industry, they have the capacity and cash flow to maintain the manufacturing without dropping in between and material price will not get affected or increased to cover the cost of finance during such period. However, they have allowed a cash discount of approximately 3% for the customers who purchase materials on cash payments. This cash discount is not entitled for customers who pay on credit.

As per their view, the industry is little descendant in the current situation and everybody is facing financial inconsistency within the industry. So there are plenty of situations where the payments are getting delayed for the suppliers. The latest payment delay for them was 1 month from the due date. To manage or minimize these type of situations, an interest will be entitled by the customer for the delayed period and even for bounced payments.

As a supplier they have not held back payments of their workers due to delay of getting payments by the customers. But, the payments for them by the customers,

say, from contractors, are getting delayed back to back simply because, the contractor's payment was delayed from the employer. There are no early payment in supply business but on time payment if it was not delayed. For example, a customer hardly pay within 30 days if 60 days credit period is allowed.

Though Act of Security Payment is completely new concept for them, they believe such concept will be workable for the Sri Lankan context to minimize the payment disputes.

Supplier No: 02

This particular supplier is engaged in tile manufacturing and supplying. The end product of the manufacturing process will be supplied mainly through three channels as dealer network, project network and direct showrooms. They demand on account payment by general customer and both cash and credit facility is given for projects subjected to a bank guarantee for credit period of 35 days which can be negotiated up to 45 days depending on the nature of the customer. An interest will be charged for delay payments.

They actually, make no difference in discount whether it is cash payment or credit payment. Considering the volume of work due to the highly competitiveness of the industry, they rather focus on getting the job because there may always be someone else who absorb the loss due to difference in discount and get the job.

There are delay payment occurred recently by 25 Days in addition to given credit period of 35 Days and it was further delayed in total by one year. But they could get the claim through bank guarantee since they demand a bank guarantee on credit payments. Since they are an establish company and already have a capital, they can manage the cost of finance or any other additional cost due to delay payments by the customers.

When it comes to the early payments, as same as other supplier said, the customers take the full credit period either it will get delayed or paid within the end of credit period.

The concept of Security of payment Act is unknown by them. Though back to back payments are entertained by the contractors, in their point of view, since the Employer always evaluate the financial eligibility of the contractor to award a job, the Employer would not likely to give a job who is completely depend on back to back payments. Therefore, whether back to back payments excluded by the Act, for the government as an Employer will be affected by it. But when it comes to timely payments, of course better to have such Act to protect the downstream payments.

4.2.4. Employers' Point of View

Employer No: 01

They are a company in property development sector who are funding, developing (by other main contractors through bidding) and selling the housing apartments all around Sri Lanka. The funding for the projects is mainly through their debentures i.e. own company money and bank facilities.

When it comes to interim payments for the contractors, they believe that they need a 60 days of credit period after the payment application is certified by the Engineer. At the same time they have the experience of contractor who practically cannot wait until even the application gets certified (As per their particular conditions, 28 days) and always pushing the employer to release the money at the earliest to increase their working capital. Therefore, as per his point of view, the contractors have to bare the additional cost of such delays within their markups by allowing a provision at the time of bidding.

In some cases where the employer gets better rate from the contractor comparing to his budget allocation, they have paid to that particular contractor without waiting 60 days of credit period but within first 7 to 10 days.

Since their business is mainly on credit basis, they always feel difficulty to pay the contractors on time. For an example, if they buy a land today, the construction permit is received after six months period and then only the selling can be started. Because of the competitiveness and other requirements they have provide 2 years interest free installment payment plan for the buyers. So they are recovering money very slowly but yet have to pay for the contractors on monthly basis. Therefore, there is always a gap and that is the nature of their business.

At the same time, they do believe that Act of Security payment is useful for the industry to protect the downstream payments. Being an employer, they admit that after the contractors' obligations are fulfilled, the contractor shall be paid under contract and are ready to bare the additional costs of adjudication emphasizing that since this will be a macroeconomic policy and industry will be finally balanced and normalized these additional payment through the system itself. Because within any legal frame work, if a contractor 'A' is disagree or not satisfied with it, there is always another party 'B' to undercut 'A' and get the job due to the huge competitiveness of the industry. And further these milestone payments are still open up to negotiation between the two parties and any contractor within this industrial environment does not want to be that strong to go against.

But on the other hand they stated that this type of act will very useful to protect the downstream payments specially those single individuals at the bottom in the construction supply chain. And they too have a corporate responsibility to support this type of implementation.

Employer No: 02

As an employer they expect the contractors to manage the gap in between payment request and receipt of the money by the advance payment paid to him initially. Otherwise, if the contractor is unable to maintain cash flow with advance payment, to finance this gap, he has to allocate his own money to execute the project. And if any payment get delayed by the employer, it shall be governed under the conditions of contract given. Therefore, it is unnecessary to add any extra premium to fill the aforesaid gap and delay of payments.

There are projects for which the payments were delayed due to exceeding contract value. The government as the employer has quite time consuming procedures to get the approval for these type of payments with full transparency to relevant government bodies or cabinet procurement committee and reallocate additional money. However, both parties were mutually came up with decision to compensate the delay of payment for the contractor to cover-up the finance cost during delay and pay for the variations. This particular project was 30 months contract under CIDA conditions of contract.

The employer always propose their payment terms according the finding facility they have been received. Accordingly, the period allowed to release the payment from the date of submission of payment application will be depend with funding inflow.

The Security of Payment Act is better to implement for major contracts but not for the small contracts. And there should be provisions to govern the contracts between employers and funding agencies because if the funding agency fails to release money in regular intervals or according to pre agreed plan, the employer only will be subjected additional cost due to a reason which beyond his control.

4.3 Comparison of Interview Findings

Following is a general comparison of information collected through the interviews. These facts will be further explained in Data Analysis section under each category.

	Contractor	Sub-Contractor	Supplier	Employer
Add premium for gap between the payment request and receipt of money	No	No	Obtain guarantee for the credit period.	N/A
Financing gap	Own money, cash flow from other ongoing projects, advance, and bank loans.	Own money, advance payment, bank loans.	Own money and advance payment.	Believe that contractors should manage to finance by advance and their own money
Delay payments	6 to 12 months	6 to 12 months	Extended up to 1 year	Always difficult to pay on time
Early payments	Foreign funded projects, within 25 to 30 Days	In short period contracts, within 14 Days	Customer always takes full credit period	If projects cost is less, within 7 -10 Days of IPC
Back to back payment terms	Include in sub contracts	Have to accept though not entertained.	Not in supply agreements but payments get delayed due to these terms within the pyramid.	N/A
Security of Payment Act	Important	Important for major contracts. Do not like to go for adjudication. Propose payment bond.	Not aware of	Important for major contracts

Table 2: Comparison of Interview Findings

4.4 Data Analysis

4.4.1. Summary of the Contractors' Point of View

Data findings from contractors regarding the existing and currently experiencing payment procedures can be summarized as follows.

How to Finance the gap in-between the interim payment request and receipt of the money.

- They include no premium or additional amount in bid price to finance the time gap in between the interim payment request and receipt of the money.
- This gap is financed by their own money, cash flow from other ongoing projects, advance payment, bank loans (over drafts) etc.
- The cost of finance during such period will be covered within the profit only for the contract period.
- In that concern, considering previous experience of the contractor with a particular client, the markup for the construction cost will be adjusted. Ex: For good pay master, competitive less markup and for whom with worst records in financial inconsistencies, a higher markup will be allowed.

Payment Delays and Back to Back Payments

- Payment delays are common for contractor and there are projects where payments got delayed 6 to 12 months. Most of them are under local conditions of contract with the government as the employer.
- The additional cost including cost of finance was claimed under conditions of contract.
- Back to back payment clause are included in the sub contracts though sub-contractors disagreed and it's difficult to implement for the payments for small scale subcontractors.

Prompt Payments

- For the foreign funded projects governed under international conditions i.e. under FIDIC conditions of Contracts, the average payment period is around 25 to 30 days though it is mentioned 56 days in the conditions.

Act of Security of Payment

- Security Payment Act is considered very important to be implemented in Sri Lankan context but will be difficult due to political influences, financial inconsistency of the government, lack of relevant professionals (Adjudicators) and legal frame work to be followed etc.
- As an option to the security Payment Act, a payment bond by the employer for the total contract price subjected to the limit of interim payment amount is proposed.

4.4.2. Potential Cost Impact to the Contractor***4.4.2.1. Cost Impact under Situation 1***

As we discussed before in the literature survey, this situation is the best possible scenario that can be happened under this act. According to the standard conditions of contract (CIDA conditions), once the contractor submitted his Interim Payment Application (IPA) to the Engineer, Interim Payment Certificate (IPC) shall be issued by the him within 21 Days (Calendar Days) and the amount certified in the IPC shall be paid to the Contractor by the Employer within 14 Days after he receives IPC. Accordingly, the Contractor shall be paid a progress payment amount within maximum 35 Days. If, FIDIC conditions of contract are considered, the Contractor shall be paid by the Employer within 56 Days after Engineer receives the IPA i.e. IPC to be issued within 28 days and Payment to be done within 28 Days.

Now let's see what happened if the SOP Act comes in to the action. As per the Clause 11 (Due date for payment) of Building Construction Industry Security of Payment Act 1999 No. 46 in New South Wales, a progress payment under a construction contract becomes due and payable, if the contract make no express provision with respect to the matter, on the date occurring 10 business days after a payment claim is made or on the date on which the payment becomes due and payable in accordance with the terms of the contract.

However, subjected to Clause 14 (Payment Schedule) in the Act, the Respondent shall provide payment schedule within 10 business days after payment claim served or within time required by the relevant construction contract but whichever time expires early. Accordingly, to make the payment before due date under Clause 11, both payment response and payment shall be provided within 10 business days. (This is 15 business days according to Building and Construction Industry Security of Payment Act 2009 in South Australia and may be different in the Acts in different States)

Generally, in Sri Lankan context, it is hardly come across where the construction contract is silent over progress payment. Therefore, subjected to SOP Act, the IPC shall be provided within 10 business days (Herein after "Business Days" in the Act are assumed as "Calendar Days" for convenience in comparison). Accordingly, under CIDA conditions, the payment shall be paid to the Contractor within 24 Calendar Days [10 + 14] and under FIDIC within 38 Calendar Days [10+28] after payment claim is made, subjected to Clause 11 and 14 of the SOP Act.

Therefore, under a contract between an Employer and Main Contractor, a progress claim entitled by the Contractor shall be paid within 24 and 38 Calendar Days within the IPA is made respectively under CIDA and FIDIC conditions of contract subjected to SOP Act.

It was identified that the Contractor does not include any additional premium in their bid price to finance this gap of payment request and receipt of money i.e. 35 or 56 days. Therefore, subjected to SOP Act, though, the due date for payment under CIDA and FIDIC will be decreased to 24 and 38 Calendar Days respectively, the cost of contractor will not be affected adversely. Instead, he will get the benefit of receiving money early than the traditional payment due date.

4.4.2.2. Cost Impact under Situation 2

Under situation 2, a dispute arises due to Claimant objects to the payment response. But still the dispute is resolved within the dispute resolution (mutually) period under the construction contract, say within 7 Calendar Days of the notice of the dispute. For an example, assume that it took total 7 Days to agree on the response. Accordingly, the payment has been received by the Contractor within 31 Calendar Days [10+7+14] under CIDA and 45 Calendar Days [10+7+28] under FIDIC.

But still, since the dispute is mutually resolved by the both parties, the contractor does not affect adversely expect the additional 7 Calendar Days for dispute resolution.

In case of where Respondent do not issue the payment response under the Act the, the Respondent has to pay the full claim amount before due dates. Yet the total time to receive the payment will be same as above and the benefit is to receive the full amount of the claim without any deductions or any other amount as agreed in dispute resolution period within considerably short period of time.

4.4.2.3. Cost Impact under Situation 3

Situation 3 is where the claimant can go for adjudication if a dispute is not resolved within agreed time under construction contract. Under the SOP Act [Building and Construction Industry Security of Payment Act 1999 No.46, New South Wales],

adjudication application shall be made within 20 business days of the due date by the Claimant [Clause 17 – Adjudication application, 3(d)]. Then the Respondent may lodge with the adjudicator a response to the claimant’s adjudication application within 5 business days after receiving a copy of adjudication application [Clause 20 – Adjudication response (a)]. The determination by the adjudicator shall be given within 10 business days after the date on which the adjudicator response is lodged with adjudicator [Clause 21 – Adjudication procedure, 3(a) i].

Accordingly, the total maximum period will be 51 business days under. (10 business days for payment response and not objected by the claimant, 14 Calendar Days for payment but not paid by respondent, say application for adjudication is given within 7 business days after the payment due date, then 5 business days to lodge an adjudication response, 10 business days for adjudication determination, and finally 5 business days to pay the adjudicated amount)

After going through the interview findings, it was identified that there are plenty of situations where the payments were delayed approximately from 6 to 12 months and claims of interest payment for delay are also pending at the same time. The particular projects were most of the times governed by local conditions of contract for construction and until such period, parties were unable to reach settlement under the contract. Some of them were finally solved after going for arbitration which incurred more additional cost and time to the contractor.

But now if SOP Act comes in to use, the total settlement period will be minimum 51 business days from the date of submission of payment claim. So this will save additional cost by contractor for arbitration, additional finance cost for delay period etc. and additional time which at the end of the day, benefitted in money value positively by early completion of the project.

4.4.2.4. Cost Impact under Situation 4 & 5

In situation 4, where the response is object by the claimant, the total period to receive the money will be minimum 58 business days i.e. 10 business days for payment response but objected by the contractor, 7 Calendar Days for dispute resolution and it was resolved, 14 Calendar Days for payment but not paid, say application for adjudication is given within 7 business days after the payment due date, then 5 business days to lodge an adjudication response, 10 days for adjudication determination and finally 5 business days to pay the adjudicated amount.

And where the payment response is not received by the claimant under situation 4, the total period to receive the money will be remained as same i.e. minimum 58 business days. (10 business days for payment response but not received, 7 Calendar Days for dispute resolution and it was resolved, 14 Calendar Days for payment but not paid, say notice for adjudication is given within 7 business days after the payment due date, then 5 business days to lodge an adjudication response, 10 days for adjudication determination and finally 5 business days to pay the adjudicated amount).

In situation 5, where the payment response is objected by the claimant, the total period to receive the money will be minimum 44 business days. (10 business days for payment response but objected by the contractor, 7 Calendar Days for dispute resolution but not resolved, say application for adjudication is given within 7 business days after the payment due date, then 5 business days to lodge an adjudication response, 10 days for adjudication determination and finally 5 business days to pay the adjudicated amount).

As well as, where the payment response is not received by the claimant, the total period to receive the money will be remained as minimum 44 business days as above. (10 business days for payment response but not received, 7 calendar Days for dispute resolution but not resolved, say application for adjudication is given within 7

business days after the payment due date, then 5 business days to lodge an adjudication response, 10 days for adjudication determination and finally 5 business days to pay the adjudicated amount).

When consider the situation 4 and 5 where the payment response is not provided by the Respondent, the benefit is to get the full amount of the claim within minimum 58 and 44 business days respectively. In cost wise it will positively affected to the contractor though he has to pay for an additional amount for adjudication. However, the maximum settlement period will be 58 business days when compared to these four instances under situation 4 and 5. Therefore, it is still cost effective to the contractor where his payments actually get delayed by 6 to 12 months under traditional conditions of contracts due to delay payments.

4.4.3. Summary of the Sub-Contractors' Point of View

How to Finance the gap in-between the interim payment request and receipt of the money.

- As same as the main contractors also specified, these sub-contractors also have to go for bank loans and to use their own capital to run the projects in between the gap from interim payment request to receipt of the money.
- Any premium for such period is not included in the bid price due to higher competition between the contractors. Instated, at the pre-bid meetings they propose to minimize the payment period up to 14 days from the submission of payment request for short term contracts.
- The cost of finance will be covered within the markup allowed for particular project.

Payment Delays and Back to Back Payments

- Both the selected parties have undergone delay payments and have to spend their own capital to run the full project due to short period of time of the contracts. They mentioned that most of the times, advance payment and

payment for one interim payment request are being paid and for the rest, they have to use own capital or get bank loans.

- There were payments held back for them from 6 months to 12 months and most of them were governed under local conditions of contract where the government is client for the main contractor.
- However, for delay payment or any other kind of disputes, they do not prefer to go for adjudication or any other legal action though the claims are pending. Because, it can be interrupted the mutual understanding of the parties to win a future job from the same client.
- Back to back payments are not entertained by them but due to delay of payments from the main contractor, payments for suppliers and other sub-sub-contractors are held back to back though contractually not agreed. With suppliers, the best possible credit period will be negotiated and payments for small scale sub-sub-contractors will be settled however. But still there are payments which has to be held until the payment from the main contractor is received. The advantage of discount offered for cash payment, is missed in such situations by them due to credit period is extended.

Prompt Payments

- There are also good pay masters who pay the payment average 14 days and 28 days from the submission of the request. Sometimes, rarely, the payments are also received within 7 days too for short term contracts.
- They also adjust the mark up for their construction cost of a particular bid according the client i.e. main contractor. If he is a good pay master, the bid price is managed to be highly competitive with lesser markup.

Act of Security of Payment

- Security payment concept is not new to the world construction industry and sort of protection to their payment is required considering the current Sri Lankan industry. According to them, this is always client dominant industry where contractor is penalized for their financial inconsistency.

- Rather than an Act, they propose payment bond because as mentioned early, adjudication is not workable due to unwillingness to stuck in adjudication in short term contracts. They also propose to pay higher amount of advance for such projects.
- However, according to them, for major contracts, Security of Payment Act will be very useful.

4.4.4. Potential Cost Impact to the Sub-Contractor

Here the contract between main contractor and sub-contractor shall be taken in to consideration. Since there is no standard type conditions for sub contracts under local conditions of contracts, often the same conditions followed by the main contract is applied back to back for the sub contracts. Therefore, the delays occurred in payments are always back to back affect to the sub-contractors too unless for small scale contractors or single individual contractors.

Sub-contractors specially are suffered by payment delays due to that it is not practical for them to withhold the payments of sub-sub-contractors who are single individual or small scale contractor simply because their payment is withheld by the main contractor. Therefore, in all above situations where the contractor get the benefit of timely payments or prompt settlement in payment claims it will back to back affected to the sub-contractors too.

For an example, the main contractor will receive money for payment claim within 24 Calendar Days under situation 1. And when consider the other situations also, they are getting the money earlier than they receive under the local standard conditions of contract. Accordingly, they will pay their sub-contractors timely manner though the back to back clauses are entertained for sub contracts and also the other downstream payments by the sub-contractor are protected. As such, sub-contractors also will be benefitted through paying suppliers in cash rather extending credit period without

cash discount and the cost of finance, interest for loans to be paid will be minimized too.

If the contract between the main contractor and sub-contractor is considered, due to the short periods of such contract, the time limits offered in Act shall be revised for such contract. Otherwise, the impact of prompt payments will not be gained by sub-contractors when considering the minimum time period (24 Calendar Days) as discussed above in contractors' scenario because without such an Act there are pay masters who pays average 14 to 28 Calendar Days.

But still, as they have mentioned, they are not willing to take legal actions like adjudication proposed by the Security Payment Act because they rather focus on maintaining the relationship with their client i.e. main contractor. They believe and already experienced that it will negatively affected to win the future job from that particular main contractor. According to them, the mutual understanding will be interrupted if such action is taken against. So that they propose this kind of Act shall be used only to govern the main contracts.

4.4.5. Summary of the Suppliers' Point of View

How to Finance the gap in-between the interim payment request and receipt of the money.

- Since they are both establish suppliers in the industry they can cover it with their own capital. Or else and advance payment is requested at the initial stage or a guarantee for the credit period to be submitted in case of delays occurred in customer's payments.

Payment Delays and Back to Back Payments

- Payment delays are common for supplier too but they manage it through encashing the bank guarantees and charging an interest on the delayed period.

- There are situation where their payments were held back to back due to Contractor was not received the money on time by the Employer. The delayed periods are sometimes extended up to 1 year even.

Prompt Payments

- There are no in time payments but on time. For an example, the customer take the full credit period offered by the supplier to pay the money.

Act of Security of Payment

- They are unaware of such an Act, but believe that it will be important to protect the downstream payments in the construction supply chain.

4.4.6. Potential Cost Impact to the Suppliers

As we discussed under cost impact to the contractor and sub-contractor, it was identified that both parties will get the benefit of early payments under the Act. Since this is a construction supply chain, as elaborated early in this study, the benefit enjoyed by the parties up in the supply chain will flow down through the pyramid. The supplies are always in bulk within the construction industry, the money exchanged are huge and most importantly the time is significantly critical comparing to the other industries. Therefore, the time saved by the parties will result in having money in hand which was at the end of the day converted in to money value.

4.4.7. Summary of the Employers' Point of View

How to Finance the gap in-between the interim payment request and receipt of the money.

- Private employers generally run their business through debentures i.e. own company money and the government employer with funding agencies i. e. foreign funds.

- As employers, they believe that the contractors should manage the gap in between the request of interim payment and receipt of the money by the advance payment given at the initial stage and if they are unable to do that, with their own money.

Payment Delays and Back to Back Payments

- Property developers always face the difficulty in paying their contractor in time because as they explained, they reserving the money very slowly. Accordingly they believe they need at least a 60 days of credit period to pay the contractors though at the same time they believe that the contractor is liable to be paid after his obligations are fulfilled under the contract.
- In government sector situation is different. Generally they face this problem where the contract sum exceed the agreed contract price since it is very time consuming process to get the approval and allocate additional money through cabinet procurement committee. At same time they are ready to pay the interest due to delay payments under the contract if any occurred.
- However whether the private or government, they are also paying back to back for contractors when the funds are reserved through their marketing plan or received money through funding agencies.

Prompt Payments

- Private employers indicated that if they get the good rates from the contractor they are able to pay the contractor within even 7 to 10 days after the payment is certified.
- When it comes to the government sector they always propose their payment terms according to the inflow of findings.

Act of Security of Payment

- Act Security of Payment is useful to protect the payment of downstream payments and since this is macroeconomic policy the cost which is to be

spent additional on adjudication or any will be balance within the system itself.

- Major contract shall be more focused to implement the Act and better to include provisions to govern the relationship between the funding agency and employer in such Act.

4.4.8. Potential Cost Impact to the Employer

4.4.8.1. Cost Impact under Situation 1

The same scenario that was discussed under the cost impact to the contractor is applicable here. Accordingly, the Contractor shall be paid a progress payment amount within maximum 35 Days under CIDA conditions of contracts. If, FIDIC conditions of contract are considered, the Contractor shall be paid by the Employer within 56 Days.

But now, under a contract between an Employer and Main Contractor, a progress claim entitled by the Contractor shall be paid within 24 and 38 Calendar Days within the IPA is made respectively under CIDA and FIDIC conditions of contract subjected to SOP Act.

Accordingly, with the use of SOP Act, under this situation, the Employer has to allocate the money for progress payment within short period of time when it is compared to standard conditions of contract without SOP Act. Employer has to pay the contractor 11 Days and 18 Days early under CIDA and FIDIC conditions respectively subjected to the SOP Act.

Therefore, let's assume where the government getting funds through a funding agency they have to release money at regular intervals or as agreed within short period of time when compared to general conditions. Accordingly the interest to be

paid for them by the employer will increased under such situation and it will become additional cost to the Employer if the SOP Act comes in to action.

As well, the professionals under Employer have to produce IPCs within 10 Business Days where it becomes 11 Days and 18 Days earlier than under the CIDA and FIDIC conditions of contracts respectively. Though, the employers are not ready to pay additional to them on achieving such time targets considering that it is their daily routine job, practically, he may have to recruit additional professionals on achieving it with the workload. So however, it's another additional cost to the employer in that concern.

At the same time they believe that these types of additional cost would be balanced with the timely completion of the project if every other things go smooth under the contract by covering the extra cost with reserving money as expected in a property development project since the money value drops with the time.

4.4.8.2. Cost Impact under Situation 2

Under situation 2, where the Respondent do not issue the payment response, the time stipulated for this situation are 31 and 45 Calendar Days under CIDA and FIDIC conditions respectively subjected to the SOP Act. But still, the Respondent may have to pay the Contractor full claimed amount of money (including an additional amount that the contractor may not be entitled to) unless any other amount as agreed by the contractor within dispute settlement period. The only relief for the Respondent is, as explained under the potential cost impact to contractor also, the additional time of 7 Calendar Days of dispute resolution (Where they can arrange money while coming to a solution and agree for any lesser amount than the full claimed amount). However, this will affect the Respondent (Employer) adversely where he has to allocate additional amount of money within short period of time. Sometimes, he may have to pay additional interest for that unexpected portion of money to be allocated.

4.4.8.3. Cost Impact under Situation 3

Under Situation 3, the Employer is entitled to pay the Contractor adjudicated amount within 51 Days. If such a situation is governed without SOP Act, sometimes the issue may get extended more & more and ended up where the Contractor will not be paid any interest to the delay payment even. But now, the Employer is legally entitled to pay the amount within stipulated time according to the Act.

If the Employer is not able to pay accordingly, the court action can be taken against where it will affect to the Employer's reputation adversely and lose their potential bidding pool in future jobs. Consequently, they will not get competitive bids for their future projects due to payment disputes. It was proved through interviews also that the Contractors already tend to adjust their bidding price according to the nature of the Employer.

But on the other hand, this will save money of both parties compared to a situation where Contractor inform his intention to go for arbitration for delay payments but under the Act issue is already solved through adjudication.

4.4.8.4. Cost Impact under Situation 4 & 5

When consider the situation 4 and 5 the same effect as we discussed above in situation 3 can be applied. Because, subjected to the Act, the Employer is entitled to pay the adjudicated amount before due date. In general, these types of issues unnecessarily get delayed under general conditions of contracts specially, where the government is the Employer, due to difficulty in extra money allocation where it exceeds the contract price.

However, it will get more restricted to government when they have to pay full claimed amount of money in such a situation where they are unable to provide payment response in time under the Act. This will incur them to pay additional

interest to release additional money from respective funding agency they are engaged in. Not only for government but also other private Employers too will come across to pay that additional interest.

But on the other hand, as explained above, these type of cost shall be balanced with the time where the Contractor will able to finish the project on time. This advantage of time shall be converted in to the money value in every situation if we are to evaluate the cost impact to any party due to the Act. Further, the effects we discussed under the Employer, will be similar to the Contractor in sub contract and to the sub-contractor in sub-sub contract.

4.5 Summary

This chapter basically discussed the finding of interviews carried out for the construction professionals. Under each type of professionals all the findings were stated and then they were summarized and further analyzed under the pre identified situations in Security Payment Act. The next chapter, chapter five will conclude this whole study and show up the recommendations.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the Study

In construction, the supply chain is a pyramid. This pyramid has number of different levels due to its complex structure of contracting and sub-contracting. Under such, the effect of delay payment freezes up the flow of fund so forth down the pyramid. This is where the Act of Security of Payment comes in to action in world construction industry. Therefore, this study was carried out to find out the potential cost impacts to each level of supply chain pyramid due to implementing of such an Act. Consequently, a comprehensive literature review was first carried out to identify the potential provisions of the currently enacted Acts and parties who are affected by them. After that a semi structured interview with pre-determined questions developed through literature findings were conducted for industry professionals to identify the grounded theory on payments. Accordingly, it was identified that no premium or additional amount is included in the contract price to finance the gap in between the request of interim payment and receipt of the money. And also, the delay payments are common for each level of the pyramid and contingent payment clauses are often included in sub contract agreements concerning payment provisions. Besides, most of the parties are aware of Security of Payment Act which is currently in action but except the parties who are at the bottom of the supply chain pyramid.

5.2 Conclusions

From the findings of the study, it can be concluded that implementing of Security Payment Act in Sri Lankan construction industry has the potential of creating considerable variations of cost at different levels of construction supply chain pyramid. The most significant cost impact is that due to the challenging time limits provided by the Act, the employer incurs additional cost, interest in arranging fund on time whereas the Contractors, Sub- Contractors and Sub-Sub-Contractors who are at the down below the pyramid get the advantage of prompt payment subsequently

i.e. contractor's cost of the interests paid for loans to finance the gap in between request of payment and the receipt of money, additional cost of financing due delay payments and time which the project get extended due to such payment delays will be reduced under the Act. But the effect of this cost impact will depend on the time limits to be proposed by the Act. However, the system will be balanced through proper execution of the Act and the employer also will benefitted by timely completions of the project that always converted in to the money value at the end.

5.3 Recommendations

Accordingly, it is recommended that such an Act will be very useful to the Sri Lankan Construction industry but limited to the major contracts. Under the Act, the time to pay for the work done at site by the contractor is really very critical because for an example, where the Contractors is benefitted in terms of cost, the Employer has to bare an additional cost. But this will be a circular effect which comes back to the Employer in terms of a cost benefit through on time completion of project. However, the time limits to be carefully enacted if this type of Act to be enacted while maintaining the balance of the effects for each party.

But since Sri Lankan Industry differs from others due to parties do not willing to go against the Employer i.e. go for adjudication or commence any other legal action in concerning the assuring of future jobs from the same Employer, specially, small scale contractors and single individuals who are at the bottom of the pyramid refuse getting stuck in legal process. Therefore, for such short term small contracts, a payment bond is recommended where a bank guarantee is issued by the Employer for the amount of contract price but subjected to limit of encashment according to the amount of progress bill. It seems to be a workable option because it is fast and cost effective to small scale parties.

5.4 Limitations of the Study

The conclusion of this study was reached basically depending on the answers provided by the ten industry professionals who were selected from the categories of Main Contractors, Sub Contractors, Suppliers and Employers. But if you go in to the depth with one category separately under different types of Form of Contracts for different scales and types of projects, the results will be more definite.

5.4 Further Studies

It is suggested to carry out further studies under potential cost impact to a particular party under particular form of contract in different scales or types of projects. For an example, Potential Cost impacts to the Main Contractor (can be filtered depend on contractor grading) under CIDA Conditions of Contracts for Building Projects (Projects also can be filtered according to the contract price) due to Implementing Security Payment Act.

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Appendix 1 - Timeline for progress payment claims, responses, adjudication applications and responses - Australian Security of Payments Legislation (Timeline for progress payment claims, responses, adjudication applications and responses, 2007).

	New South Wales	Northern Territory	Queensland	Victoria	West Australia	Tasmania	Australian Capital Territory	South Australia
Name of Act	<i>Building and Construction Industry Security of Payment Act 1999</i>	<i>Construction Contracts (Security of Payments) Act 2004</i>	<i>Building and Construction Industry Payments Act 2004</i>	<i>Building and Construction Industry Security of Payment Act 2002</i>	<i>Construction Contracts Act 2004</i>	<i>Building and Construction Industry Security of Payment Act 2009</i>	<i>Building and Construction Industry (Security of Payment) Act 2009</i>	<i>Building and Construction Industry Security of Payment Act 2009</i>
Definition of time	<p>“business day” A day other than Saturday, Sunday, public holiday, or 27 - 31 December.</p>	<p>“working day” is defined but not always used in the Act.</p> <p>The term “day” is often used where one would expect “working day” to be used.</p> <p>“day” is not defined in the <i>Interpretation Act</i>. If the period ends on a Saturday, Sunday or public holiday, the period ends on the next day that is not one of these.</p>	<p>“business day” means a day that is not a Saturday, a Sunday, a public holiday, a special holiday, a bank holiday in the place where the act is to be done, and does not include 27 to 31 December inclusive.</p>	<p>“business day” means a day that is not a Saturday, a Sunday, or a day that is wholly or partly a public holiday throughout Victoria.</p>	<p>None</p> <p>If the period ends on a Saturday, Sunday or public holiday, the period ends on the next day that is not one of these.</p>	<p>"business day" means any day other than a Saturday or Sunday or a statutory holiday as defined in the <i>Statutory Holidays Act 2000</i>.</p>	<p>“business day” means a day that is not a Saturday, Sunday, public holiday or bank holiday in the ACT (<i>Dictionary, Legislation Act 2001</i>) and not 27 – 31 December (<i>Dictionary, Building and Construction Industry (Security of Payment) Act 2009</i>)</p>	<p>“business day” means any day other than a Saturday, Sunday, public holiday, 27-31 December or any other day on which there is a State wide shut-down of the operations of the building and construction industry</p>

	New South Wales	Northern Territory	Queensland	Victoria	West Australia	Tasmania	Australian Capital Territory	South Australia
Time by which progress payments are due to be paid in absence of dispute	As per contract or 10 business days after payment claim under Act.	If contract specifies > 50 days after claim, then 28 days. If contract does not specify then 28 days.	If a commercial building contract other than a construction management trade contract or a subcontract specifies > 15 days, the clause is void. If a construction management trade contract or subcontract specifies >25 days the clause is void. If contract contains no provision or clause is void, 10 business days	As per contract or 10 business days after payment claim under Act.	If contract specifies > 50 days after claim, then 50 days. If contract does not specify then 28 days.	As per contract or 20 business days (if residential and owner is the respondent) or 10 business days (in any other case).	As per contract or 10 business days after payment claim under Act.	As per contract or 15 business days after a payment claim under Act.
Period following receipt of payment claim by which response disputing payment claim (“Payment Schedule”) is to be provided	Earlier of date specified in contract or 10 business days.	In absence of contractual provision, 14 days – must pay any undisputed portion of claim at same time.	Earlier of date specified in contract or 10 business days.	Earlier of date specified in contract or 10 business days.	The date specified in the contract, or if no date specified, 14 days. (But limited to maximum 28 days).	Earlier of date specified in contract or 20 business days (if residential and owner is the respondent) or 10 business days (in any other case).	Earlier of date specified in contract or 10 business days.	Earlier of date specified in contract or 15 business days.

	New South Wales	Northern Territory	Queensland	Victoria	West Australia	Tasmania	Australian Capital Territory	South Australia
Consequence of failure to provide Payment Schedule within period specified	Liable to pay amount claimed on the due date for that progress payment.	None specified – gives rise to dispute allowing application for adjudication.	Liable to pay amount claimed on the due date for that progress payment.	Liable to pay amount claimed on the due date for that progress payment.	Must pay whole claim within 28 days.	Liable to pay amount claimed on the due date for that progress payment.	Liable to pay amount claimed on the due date for that progress payment.	Liable to pay amount claimed on the due date for that progress payment.
Consequence of failure to make payment following failure to provide Payment Schedule	Claimant may recover unpaid portion as a debt due in any court and may give notice of intention to suspend works.	None specified – claimant may apply for summary judgement in court	Claimant may recover unpaid portion as a debt due in any court and may give notice of intention to suspend works.	Claimant may recover unpaid portion as a debt due in any court and may give notice of intention to suspend works	None specified – claimant may apply for summary judgement in court.	Claimant may recover unpaid portion as a debt due in any court and may give notice of intention to suspend works.	Claimant may recover unpaid portion as a debt due in any court and may give notice of intention to suspend works.	Claimant may recover unpaid portion as a debt due in any court and may give notice of intention to suspend works.

	New South Wales	Northern Territory	Queensland	Victoria	West Australia	Tasmania	Australian Capital Territory	South Australia
Requirements for Payment Schedule	<p>Must identify the payment claim to which it relates. Must state the amount of the payment (if any) that the respondent proposes to make. If less than claimed amount must state reasons.</p>	<p>Unless contract provides otherwise, must be: In writing Addressed to claimant. State name of party giving notice. State date of notice. Identify claim to which notice relates. State reasons (e.g.) identifying disputed items and reasons for each item, or state contractual basis for disputing claim. Signed by party giving notice.</p>	<p>Must identify the payment claim to which it relates. Must state the amount of the payment (if any) that the respondent proposes to make. If less than claimed amount must state reasons. If withholding payment for a reason, must state reason.</p>	<p>Must identify the payment claim to which it relates. Must state the amount of the payment (if any) that the respondent proposes to make. Must identify "excluded amounts" (e.g. non claimable variations, quantum merit claims, and delay claims, latent conditions claims). If less than claimed amount must state reasons</p>	<p>Unless contract provides otherwise, must be: In writing Addressed to claimant. State name of party giving notice. State date of notice. Identify claim to which notice relates. State reasons (e.g.) identifying disputed items and reasons for each item, or state contractual basis for disputing claim. Signed by party giving notice.</p>	<p>Must identify the payment claim to which it relates. Must state the amount of the payment (if any) that the respondent proposes to make. If less than claimed amount must state reasons. If withholding payment for a reason, must state reason.</p>	<p>Must identify the payment claim to which it relates. Must state the amount of the payment (if any) that the respondent proposes to make. If less than claimed amount must state reasons. If withholding payment for a reason, must state reason.</p>	<p>Must identify the payment claim to which it relates. Must state the amount of the payment (if any) that the respondent proposes to make. If less than claimed amount must state reasons.</p>

	New South Wales	Northern Territory	Queensland	Victoria	West Australia	Tasmania	Australian Capital Territory	South Australia
Initial steps before claimant makes adjudication application	If no Payment Schedule provided and whole or part payment not made, claimant must notify respondent within 20 business days following due date for payment and give opportunity to provide Payment Schedule within 5 business days after receipt of notice.	Any party to a payment dispute under a construction contract can apply.	If no Payment Schedule provided and whole or part payment not made, claimant must notify respondent within 20 business days following due date for payment and give opportunity to provide Payment Schedule within 5 business days after receipt of notice.	If no payment schedule provided and if whole or part payment not made, claimant must notify respondent within 10 business days following due date for payment and give opportunity to provide Payment Schedule within 2 business days after receipt of notice.	Any party to a dispute under a construction contract may apply within 28 days after the dispute arises.	If no Payment Schedule provided and whole or part payment not made, claimant must notify respondent within 20 business days following due date for payment and give opportunity to provide Payment Schedule within 5 business days after receipt of notice.	If no Payment Schedule provided and whole or part payment not made, claimant must notify respondent within 20 business days following due date for payment and give opportunity to provide Payment Schedule within 5 business days after receipt of notice.	If no Payment Schedule provided and whole or part payment not made, claimant must notify respondent within 20 business days following due date for payment and give opportunity to provide Payment Schedule within 5 business days after receipt of notice.

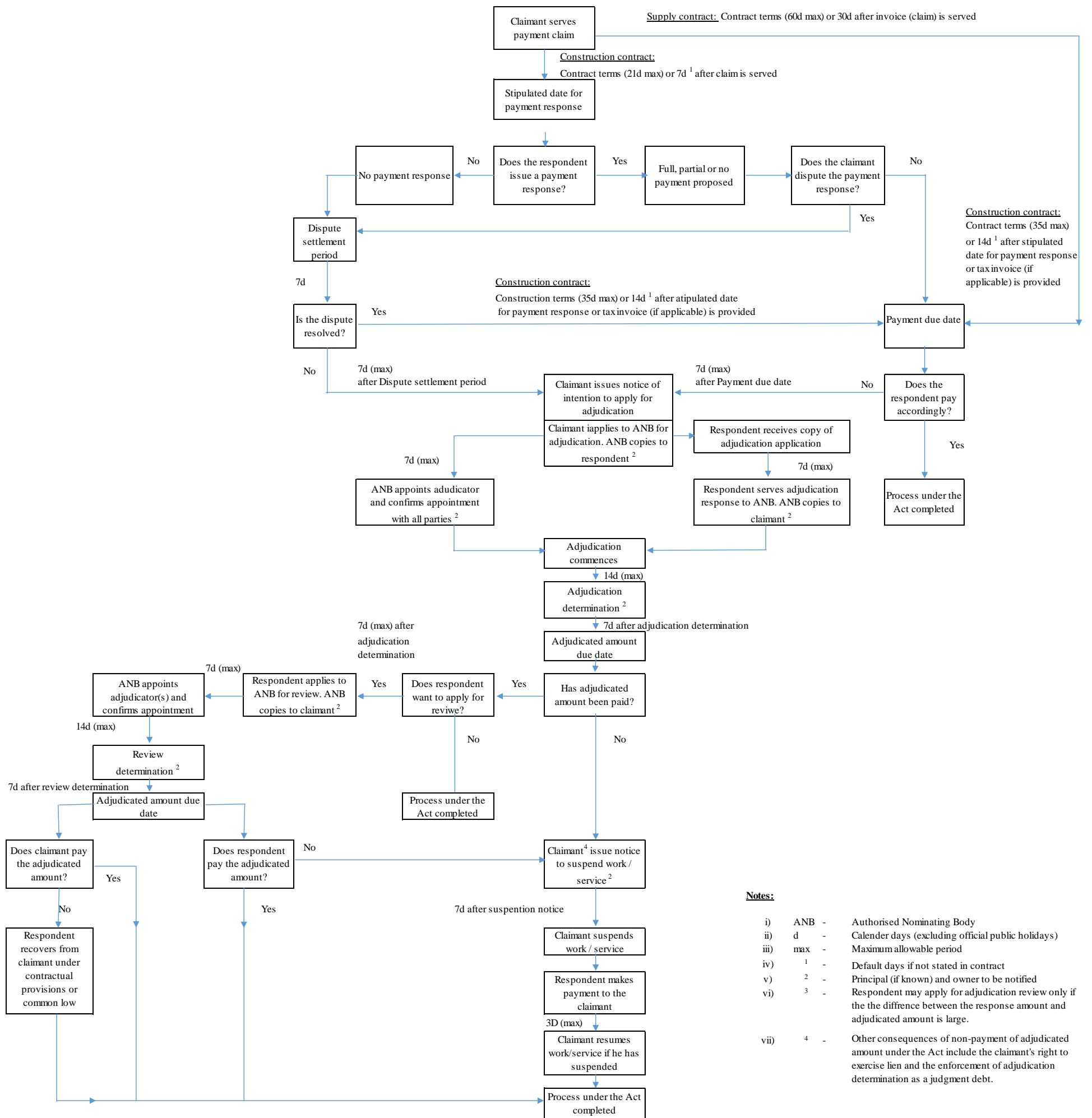
	New South Wales	Northern Territory	Queensland	Victoria	West Australia	Tasmania	Australian Capital Territory	South Australia
Timing to deliver the adjudication application	<p>Within 10 business days after receipt of Payment Schedule if amount indicated in Payment Schedule is less than amount claimed.</p> <p>Within 20 business days if the respondent fails to pay all or part of the amount stated on the Payment Schedule.</p> <p>Within 10 business days after the end of the further 5 day period allowed after the notice is sent by the claimant following a failure to provide a Payment.</p>	<p>Within 90 days after the dispute arises (or 28 days after an earlier application for adjudication has been dismissed)</p>	<p>Within 10 business days after receipt of Payment Schedule if amount indicated in schedule is less than amount claimed. Within 20 business days if the respondent fails to pay all or part of the amount stated on the schedule. Within 10 business days after the end of the further 5 day period allowed after the notice is sent by the claimant following a failure to provide a Payment Schedule.</p>	<p>If Payment Schedule provided, within 10 business days of receipt of Payment Schedule or failure to provide money in part of whole.</p> <p>If no Payment Schedule originally provided, within 5 business days of the 2 day second chance period.</p>	<p>Within 28 days after the dispute arises (or an earlier application for adjudication has been dismissed).</p>	<p>Within 10 business days after receipt of Payment Schedule if amount indicated in Payment Schedule is less than amount claimed.</p> <p>Within 20 business days if the respondent fails to pay all or part of the amount stated on the Payment Schedule.</p> <p>Within 10 business days after the end of the further 5 day period allowed after the notice is sent by the claimant following a failure to provide a Payment Schedule.</p>	<p>Within 10 business days after receipt of Payment Schedule if amount indicated in Payment Schedule is less than amount claimed.</p> <p>Within 20 business days if the respondent fails to pay all or part of the amount stated on the Payment Schedule.</p> <p>Within 10 business days after the end of the further 5 day period allowed after the notice is sent by the claimant following a failure to provide a Payment Schedule, or the day the claimant receives the Payment Schedule, whichever is earlier.</p>	<p>Within 15 business days after receipt of Payment Schedule if amount indicated in schedule is less than amount claimed. Within 20 business days if the respondent fails to pay all or part of the amount stated on the schedule. Within 15 business days after the end of the further 5 day period allowed after the notice is sent by the claimant following a failure to provide a Payment Schedule.</p>

	New South Wales	Northern Territory	Queensland	Victoria	West Australia	Tasmania	Australian Capital Territory	South Australia
Forwarding the adjudication application	Application must be made to an “Authorised Nominating Authority” (“ANA”) chosen by the applicant and a copy served on the respondent. An ANA may be authorised by the Minister on application.	Application must be in writing and served on each other party to the contract and sent to: <ul style="list-style-type: none"> • If the parties have agreed on a registered adjudicator, the adjudicator; • If the parties have agreed on a prescribed appointer, the appointer; • Otherwise, a prescribed appointer chosen by the party. Prescribed appointers are listed in the Regulations (clause 5)	Application must be made to an ANA and a copy served on the respondent. An ANA may be appointed by the registrar on application	Application must be served on each other party to the contract and sent to: <ul style="list-style-type: none"> • The ANA adjudicator chosen by the claimant unless the parties have agreed in their contract on a shortlist of three or more adjudicators in which case the claimant may choose one of them. An ANA may be authorised by the Building Commission, in accordance with Ministerial guidelines under the Act, on application.	Application must be served on each other party to the contract and sent to: <ul style="list-style-type: none"> • If the parties have agreed on a registered adjudicator, the adjudicator; • If the parties have agreed on a prescribed appointers, the appointers; • Otherwise, a prescribed appointers chosen by the party. Prescribed appointers are listed in the Regulations.	Application must be made to an ANA chosen by the applicant and a copy served on the respondent. An ANA may be authorised by the Security of Payments Official on application.	Application must be made to an ANA chosen by the applicant. An ANA may be authorised by the Minister on application.	Application must be made to an ANA chosen by the applicant and a copy served on the respondent. An ANA may be authorised by the Minister on application.

	New South Wales	Northern Territory	Queensland	Victoria	West Australia	Tasmania	Australian Capital Territory	South Australia
Responding to adjudication application	Response permitted only if complied with timeline (including any extension) when responding to the payment claim by serving a Payment Schedule. If so, within the later of 5 business days after receiving a copy of the adjudication application; or 2 business days after receiving notice of an adjudicator’s acceptance of the application.	Must respond within 10 “working days”	Response permitted only if complied with timeline (including any extension) when responding to the payment claim by serving a Payment Schedule. If so, within the later of 5 business days after receiving a copy of the adjudication application; or 2 business days after receiving notice of an adjudicator’s acceptance of the application.	Response permitted only if complied with timeline (including any extension) when responding to the payment claim by serving a Payment Schedule. If so, within the later of 5 business days after receiving a copy of the adjudication application; or 2 business days after receiving notice of an adjudicator’s acceptance of the application.	Must respond within 14 days after application is served.	Response permitted only if complied with timeline (including any extension) when responding to the payment claim by serving a Payment Schedule. If so, within the later of 10 business days after receiving a copy of the adjudication application; or 5 business days after receiving notice of an adjudicator’s acceptance of the application.	Response permitted only if complied with timeline (including any extension) when responding to the payment claim by serving a Payment Schedule. If so, within the later of 7 business days after receiving a copy of the adjudication application; or 5 business days after receiving notice of an adjudicator’s acceptance of the application.	Response permitted only if complied with timeline (including any extension) when responding to the payment claim by serving a Payment Schedule. If so, within the later of 5 business days after receiving a copy of the adjudication application; or 2 business days after receiving notice of an adjudicator’s acceptance of the application.
Limitation on content of response to adjudication application	Cannot include reasons for withholding payment that were not included in the Payment Schedule.	None specified.	Cannot include reasons for withholding payment that were not included in the Payment Schedule.	None specified.	None specified.	Cannot include reasons for withholding payment that were not included in the Payment Schedule.	Cannot include reasons for withholding payment that were not included in the Payment Schedule.	Cannot include reasons for withholding payment that were not included in the Payment Schedule.

	New South Wales	Northern Territory	Queensland	Victoria	West Australia	Tasmania	Australian Capital Territory	South Australia
Appointment of adjudicator	<p>The ANA must refer adjudication application to an adjudicator “as soon as practicable”.</p> <p>On accepting the application by serving notice of acceptance on claimant and respondent, the adjudicator is appointed.</p>	<p>If adjudicator is not appointed by agreement between parties, the prescribed appointer must appoint adjudicator within 5 working days after being served or otherwise Registrar may appoint adjudicator.</p>	<p>The ANA must refer adjudication application to an adjudicator “as soon as practicable”.</p> <p>On accepting the application by serving notice of acceptance on claimant and respondent, the adjudicator is appointed.</p>	<p>If the adjudicator is not appointed by agreement between the parties, the ANA must refer the application to the adjudicator “as soon as practicable”.</p> <p>On accepting the application by serving notice of acceptance on claimant and respondent, the adjudicator is appointed.</p> <p>One of the Gazetted criteria for obtaining authorisation as a nominating authority is the ability of the applicant to promptly deal with applications. A failure to do so may lead to a withdrawal of the authorisation.</p> <p>There are no fixed timelines for appointment of the adjudicator by the ANA.</p>	<p>If adjudicator is not appointed by agreement between parties, the prescribed appointers must appoint adjudicator within 5 working days after being served or otherwise Registrar may appoint adjudicator.</p>	<p>The ANA must refer adjudication application to an adjudicator “as soon as practicable”.</p> <p>The adjudicator accepts the application by serving notice of acceptance on claimant and respondent.</p>	<p>The ANA must refer adjudication application to an adjudicator “as soon as practicable”.</p> <p>On accepting the application by serving notice of acceptance on claimant and respondent, the adjudicator is appointed.</p>	<p>The ANA must refer adjudication application to an adjudicator “as soon as practicable”.</p> <p>On accepting the application by serving notice of acceptance on claimant and respondent, the adjudicator is appointed.</p>

Appendix 2 – SOP Flow Chart



Appendix 3 – Interview Questions

Level 1 Questions (to be asked)

- There is a time gap in between your interim valuation/bill/claim/payment request and receipt of payment. How do you finance this?
- Do you include a premium to cover this in your price?
- Do you usually use a fixed rate for this? If not, how do you decide the rate
- For how long (how many days/months) you cover this in prices?
- How do you decide your cost of finance?
- During last year, how long was the longest delay in payment you can recall?
- What was your cost of finance?
- How did you manage it?
- How did you pay your subcontractors and material suppliers?
- Can't you get them to agree to get paid when you are paid?
- Recall the project with faster payment and tell me these, it not necessary to mention the name.
- What was the average payment time?
- Did you anticipate this at the time of bidding/negotiation?
- Had you known about this at time of bidding/negotiation, would you have done any adjustment to price?
- Do you know about “security of payment act”? (Depending on his/her answer, explain further)
- Do you think it is useful for Sri Lankan context?
- Do you think it will really work?
- Do you see any negative effects of bringing such an act?
- What challenges do you see in implementing this?

Level 2 Questions (not to be asked direct, but answers are sought through Level 1 Questions)

- What are the potential positive/negative cost impact due to each scenario?
- Do you really use “paid when/if paid” conditions? Or do others use it?
- As per your knowledge, is there a real request emerged from the industry to bring a security payment act?
- Are you ready to bare the additional cost incurred for adjudication process under this act?
- In case of where the Consultant, on behalf of client, failed to provide payments schedules within time limit given in the Act and as such client has to bare the additional cost for adjudication, interest etc. Do you propose a recovery method for such cost from the Consultant? Please elaborate.
- Since the Client may suddenly be liable for a payment of large amount as consequence of an Adjudication, the financing party for him won't be able to predict the probable progress payments during the contract period. How does it affect to the client?
- There are considerably challenging time limits (As per the acts in other States) given for each payment claim to provide a response. Does it incur additional cost to the client for paying his professionals for overtimes in meeting the time targets?
- Does it affect the mutual understanding, reputation and relationship between the parties by applying for adjudication process and enforcing it at courts?