

**THE PAYMENT DISPUTES IN  
CONSTRUCTION CONTRACTS IN SRI LANKA  
AND CONCEPT FOR SOLUTION**

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Dissertation submitted in partial fulfillment of the requirement for the  
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## DECLARATION

I declare that this is my own work and this dissertation 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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Date

The above candidate has carried out research for the Masters dissertation under my supervision.

.....  
Dr. Gayani I karunasena  
Dissertation Supervisor

.....  
Date

## ABSTRACT

### **The payment disputes in construction contracts in Sri Lanka and concept for solution**

The construction contracts suffer with many disputes in every country and treated as world phenomena; it is an inherent features of industry. The payment dispute is significant one among the disputes and need potential solution always. The world uses conventional approaches to respond the payment dispute i.e. contract administration and once it failed a legal action taken. Failing of both, many countries foresee the necessity to look for better solutions than resorting to the existing practices.

Since nineteen's onward a new concept was introduced by UK as potential solution for the payment disputes as 'Security of Payment (SOP) Act 1996' which is legislative approach. There are many countries that adopt this concept and practicing for more than decades. Unfortunately, this concept is not adopted for Sri Lankan context. Hence issue of this research has been selected to introduce a SOP concept as a potential solution for payments issues in Local Construction Industry. Currently, there are high scale of construction projects that are in pipe line and carrying out and to be involved by international contractors as well as investors. Therefore, it is the most apt time to adopt the SOP concept.

Analytically examined other countries' SOP practice through literature review and carried out primary data collection through interview in order to identify the local construction industry's behavior.

Findings in the research reveals that payment dispute can be mitigated or avoided through SOP concept. It formulated through particular country's legislation and parties created their contract provisions or administration practices are to be abide by the new concept. Therefore, victim parties can secure their rights before the dispute starts in most of the time and concept able to play vital role and potential solution for payment dispute.

**Keywords:** Dispute, Payment, Delay in projects, Dispute Resolution, Security of Payment, Jurisdiction and Parliament Act

*Dedication.....*

*This dissertation is  
Lovingly dedicated to  
Academic Gurus  
&  
My beloved  
Wife & Sons  
For their  
Love and Support*

## **ACKNOWLEDGEMENT**

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## LIST OF ABBREVIATIONS

| <b>Abbreviation</b> | <b>Description</b>   |
|---------------------|--|
| BOQ                 | Bill of Quantities   |
| CA                  | Contract Administrator   |
| CEM                 | College of Estate Management, UK   |
| Ed.                 | Edition  |
| FIDIC               | Conditions of Contract published by Federation Internationale des Ingenieurs-Conseils                              |
| GCOC                | General Conditions of Contract   |
| HGCR                | Housing Grant Construction and Re-Generation   |
| ICTAD               | Institute for Construction Training and Development  |
| ICTAD/SBD           | Institute for Construction Training and Development/ Standard Bidding Document                                     |
| IMaCS               | ICRA Management Consulting Services Limited  |
| LR                  | Literature Review  |
| No.                 | Numbers  |
| PD                  | Primary Data   |
| Rev.ed.             | Revised edition  |
| RICS                | The Royal Institution of Chartered Surveyors   |
| SBD                 | Standard Bidding Documents as Conditions of Contract issued by Institute for Construction Training and Development |
| SD                  | Secondary source data  |
| SOP                 | Security of Payment  |
| Vol.                | Volume (e.g.: Vol.4)   |
| 2 <sup>nd</sup> ed. | Second edition   |

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# **CHAPTER ONE**

## **INTRODUCTION TO THE RESEARCH**

### **1.1. Background**

Murdoch and Hughes (2008) explained construction industry includes buildings and civil structures by way of erection, repair and demolition of things as diverse. Thus significant features identify that construction industry is difficult to comprehend fully, relationships between parts are not always clear, the boundary of the industry is unclear. Jaffar, Tharim and Shuib, (2011) added statement further as construction projects are complex, relational and lengthy on designing and construction and disputes are virtually ensured. Turner (2007) also further proved that in construction process, disputes are inherent and common situation on every project even contracts were properly made. Thus disputes become more generous in every time and Kumaraswamy and Yogeswaran (as cited in Sibai and Alashwal, 2014) defined that “a dispute can be said to exist when a claim or assertion made by one party is rejected by the other party and that rejection is not accepted”. Hence, when the words quoted as issue, problem and or dispute, all are having same meaning in this report.

Factors on construction disputes are common to any given project. Murdoch and Hughes (2008) explained that people as main factor on dispute when disagreement on argument on legal or technical matters with the action of intransigent (p.247). This becomes world phenomena and examples are from: Latham report (1994) – the UK; Journals are from Maritz and Robertson (2012) – South Africa; Gunawansa (2008) – Asian countries; Brand and Devenport (2011) – Australia; even in Sri Lanka also common as per report by National Construction Association of Sri Lanka (South Branch) [NCASL], 2014. Having read above researchers’ reports, there are more disputes that exist in construction industry and one such dispute was selected in this research to find out a solution as the professional’s contribution to the industry.

## **1.2. Selected issue – ‘SOP concept’ to Sri Lanka**

Among the various disputes in the construction industry the payment dispute is selected considering its relevance to the research issue. There are many reasons on this dispute to arise as it is very sensitive area in the process. This has been quoted by Lord Denning MR and said that “Cash flow is the life-blood of the construction industry”. Hence, a main or subcontractor can easily be brought to its knees financially by a (usually) more powerful employer or main contractor who fails to maintain regular payments in *Dawnays Ltd vs FG Minter Ltd*<sup>(1)</sup>. Turner (2007) quoted that even having made construction contract properly, still a project could fail due to parties have left freedom to make their contract. It means that influential party in the contract acts either on their favour while preparing on relevant contract or knowing the consequence of breach of contract some parties would fail to honor on the provision for their sake-off.

There are numerous researches stating that payment is significant dispute in a construction contract Rahman, Takim and Min (2009) stated that in Malaysia, industry suffers with: late payments; poor cash flow management; insufficient financial resources; and financial market instability as independent variables to delay in construction. Ayudhya’s (2011) literature review explained that United States, Nigeria, Indonesia, Hong Kong, Saudi Arabia and Lebanon also suffer by delay in main contract projects and cost is one of main factors on it. Ren, Atout and Jones (2008) identified Dubai projects incur many delays and main factor as main contractor’s payment delay to his subcontractors and weighted with 72 per cent. In Iranian, Pourrostam and Ismail (2012) stated that number one out of ten ranks in disputes is ‘Delay in progress payments by client’ and number five as ‘Financial difficulties by contractor’.

There is rational solution to address the payment disputes over decades but expected level is currently in dilemma. Therefore, many researches attempt to find a potential solution(s). The Latham report (1994) was suggested Security of Payment (SOP) concept as solution for payment disputes and the UK government enacted it as ‘The Housing Grant Regeneration Act 1996’ (Designing Building Wiki, 2015).



This SOP concept was accepted by most of other countries and adopted with their legislation. The Table 1.1 is illustrated the status of recent past.

Table – 1.1: Countries where SOP scheme practices

| No. | Country reference | Legislative reference  | Effective year | Remarks (sources)  |
|-----|-------------------|--|----------------|--|
| 1   | United Kingdom    | The Housing Grant Regeneration Act 1996 (The Construction Act)                             | 1998           | Murdoch & Hughes (2008)  |
| 2   | Australia         | The Building and Construction Industry Security of Payment Act 1999 (NSW) or (the NSW Act) | 2000           | Coggins, Elliott & Bell (2010)   |
| 3   | New Zealand       | The Construction Contract Act (CCA)  | 2002           | Ramachandran and Rotimi (2011)   |
| 4   | Hong Kong         | The Construction Industry Payment and Adjudication Act                                     | 2007           | Cheng, Soo, Kumaraswamy and Jin (2009)   |
| 5   | Singapore         | The Building and Construction Industry of Payment Act                                      | 2005           | Building and Construction Authority:<br><a href="http://www.bca.gov.sg">www.bca.gov.sg</a> |
| 6   | Malaysia          | The Construction Industry Payment and Adjudication Act (CIPA Act)                          | 2013           | Supardi, Adnan and Mohammad (2010)   |
| 7   | Ireland           | Construction Contracts Act 2013  | 2013           | William (2015)   |
| 8   | Sri Lanka         |  | Pending        |  |

Sources are indicated in remarks column

Table 1.1 highlighted that Sri Lanka does not employ such a practice. However, IMaCS (2011) report indicated that Sri Lanka suffers lots of financial related issues in the construction industry and marked as “... contractors often face delays in receiving payments and as a result, the sub-contractors and other entities face financial difficulties, which adversely impacts suppliers of materials, so *Payment concerns needs to be addressed by arranging specialized financial assistance schemes* aimed at development of the industry”. Therefore, issue in this research is pending matter in the Table 1.1 i.e viability of SOP concept for Sri Lanka.

### **1.3. Parameters on research area including limitation**

Cheng, Soo, Kumaraswamy and Jin (2009) has identified that SOP concept in two ways ie. Administrative measure and Legislative measure (p.22). This research has dedicated only for the Legislative measure as SOP concept is supported by particular countries' legislation.

Thyagaraju (2014) discussed the Security of Payment for wages on employment labours. Brand and Davenport (2011) discussed the Security of Payment procedure for workers and tradespeople in Australia under the Contractors Debts Act 1897 and how was failed in practically (p.31). This research is focused on stakeholders' effect and this area has been exclusive in the research area.

Ho (2013) discussed that construction industry features has a low capital support and mainly depend on cash flows under the hierarchical chain of contracts and financial failure on higher would be a domino effect on lower-tier parties on sustain business. Hence, the research focuses on parties who are in 'domino effect' on payment disputes in local construction industry.

### **1.4. Aim and Objectives**

In order to achieve the final outcome (findings) of this research the following tasks are set-out through aim and objectives as well as methodology is in following section.

#### **1.4.1. Aim**

The aim of this research is to “investigate the viability of application of Security of Payment (SOP) technique as a potential solution for payment disputes in Sri Lankan construction contracts to achieve by reducing number of payment issues and mitigating impact of it in order to create a sustainable development”.

### **1.4.2. Objectives**

The aim which is planned to achieve through following Objectives:

- Identify current solution(s) on payment disputes and analyze their main constraints and inefficiency of these solution(s).
- Discuss new approach adopted by other countries to payment dispute, namely ‘Security of Payment (SOP)’ scheme and review the sources of initiation, evolution of the scheme.
- Identify current status of the payment dispute in Sri Lanka and evaluate the existing legal system and prevailing market factors in Sri Lanka (gaps and barriers) to introduce a SOP concept to Sri Lanka.
- Investigate viability of SOP concept for Sri Lanka and to make proposals for its implementation.

### **1.5. Methodology**

The methodology has been set out through a qualitative research approach and structured in the following manner.

The Literature Review (LR) focuses to identify the first two objectives. The appropriate reference would search from books, journals, articles and case law reports where available on either library or internet base.

The interview with the stakeholders who are in the construction industry aims to find facts related to the third objective.

The fourth objective plans to achieve the findings through content analysis of collected data and facts. Finally, the research will be identified the potentiality of selected concept as a solution for the payment issues in the construction contracts in Sri Lanka.

## 1.6. Chapter breakdown

The chapter breakdown is illustrated in Figure 1.1 in order to identify the set objectives as follows.

| Chapter     | Body of content in the section  | Action/event/circumstance to cover-up in the body  |
|-------------|---|--|
| Chapter 1   | Introduction about selected issue and justification for research  | <ul style="list-style-type: none"> <li>Identify payment as issue in construction and generalized that it is common to everywhere</li> <li>Explain SOP as potential solution for payment issue and how to conduct this research</li> </ul>  |
| Chapter 2   | <p>Issue as payment:<br/>Establish payment issues in construction industry and current solution</p> <p>SOP application:<br/>History of SOP; identify number of jurisdictions who apply the SOP and their view</p> | <ul style="list-style-type: none"> <li>Identify issues in the construction contract and obtain current situation in solution for payment issues</li> <li>Identify Security of Payment (SOP) as a mechanism which adopted countries to resolve payment issue</li> <li>Review SOP development</li> </ul>   |
| Chapter 3   | <p>Methodology:</p> <ul style="list-style-type: none"> <li>Literature Review by desk-top survey</li> <li>Field survey which provide information about market behavior and needs</li> </ul>                        | <ul style="list-style-type: none"> <li>Desk-top survey includes to read books, journals, articles and reports on particular issue</li> <li>Interview would focus to find the first hand</li> </ul>   |
| Chapter 4   | Critically and analytical review of the payment as issue in the construction and approach on SOP as one of potential solution   | <ul style="list-style-type: none"> <li>Market survey by interview with selected construction organization, policy makers to identify current legal requirements</li> <li>Compare and contrast other countries SOP application</li> <li>Examine barriers and identify any gap between existing jurisdiction new requirement to introduce SOP</li> </ul> |
| Chapter 5   | Recommendations and Conclusions and Suggestion for SOP concept  | <p>Presenting final outcome:-</p> <ul style="list-style-type: none"> <li>Identify primary requirements on SOP Scheme</li> <li>Forward to a policy makers for further action</li> </ul>   |
| Attachments | Reference, Appendices   |  |

Figure 1.1: Chapter Breakdown

## 1.7. Chapter summary

Having discussed the payment dispute as world phenomena as well as a perennial issue that exists in Sri Lanka, this research approaches to propose a potential solution with concept of SOP. Accordingly, the aim and objectives were set out above and the methodology explains the process of preparation.

## CHAPTER TWO

### LITERATURE REVIEW

The aim of this chapter has been dedicated to collect appropriate Secondary source Data relating to the research. This collection would be structured in the manner expressed by Fink (as cited in Blaxter et al., 2006) that “A research literature review is a systematic, explicit, and reproducible method for identifying, evaluating and synthesizing the existing body of completed and recorded work produced by researchers, scholars and practitioners”.

#### 2 Planning of Literature Review

Having selected the qualitative research approach, Silverman (2008) explained that main strength of this approach is its ability to study phenomena which are simply unavailable elsewhere and are rightly concerned to establish correlations between variables (p.43). During this section, the first three objectives set out in Chapter 1 would be planned to achieve. Hence, desktop investigation was the applied method through internet and using library facilities according to the flow chart given in Figure 2.1.

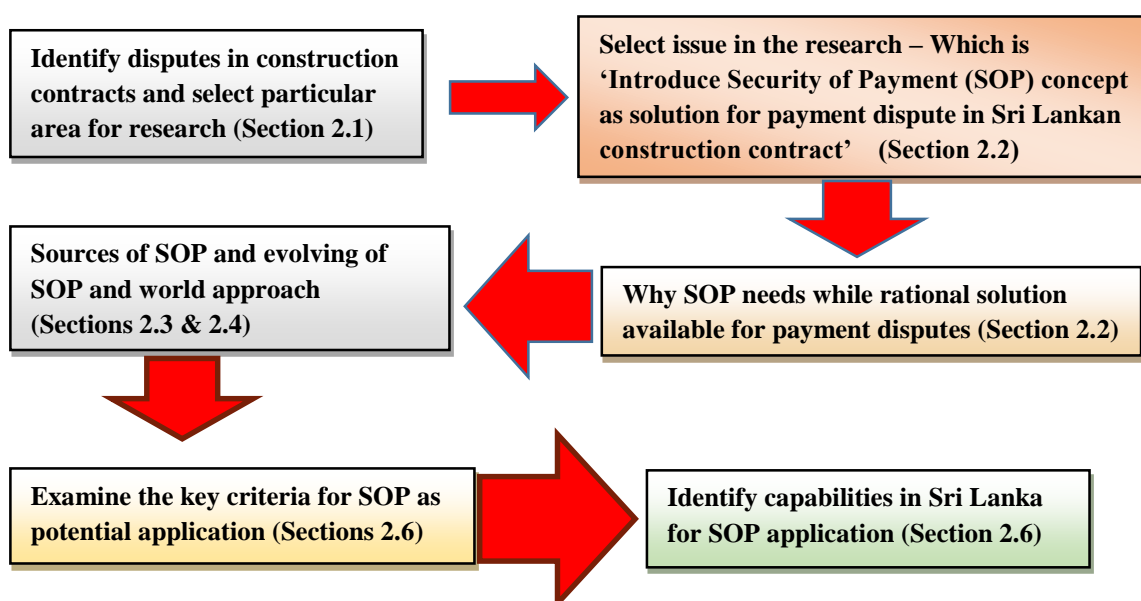


Figure 2.1: Flow of Literature Review

## **2.1 Construction Contracts**

The 'Construction Works' is interpreted by sub-clause (a) in clause 67 of Construction Industry Development (CID) Act no. 33 of 2014 as "operation of construction, alteration, repair, maintenance, extension ..." and further elaborated in sub-clauses (b) to (f). The same clause provides the meaning of 'construction contract' i.e. an agreement with a person or entity for: "(a) carrying out of construction work; (b) arranging for the carrying out of construction work by others; (c) providing his own labour or labour owned by the entity or the labour of others, for carrying out of construction work". Masons (2011) said all design and construction contracts, including professional appointments, are likely to be construction contracts as long as they relate to "construction operations". The selected research issue is within area described in above which belongs to construction contracts in Sri Lankan construction industry and import on that explain below.

Central Bank Annual Report (2014) indicated that local construction industry in Sri Lanka has been further growing from 14.4 per cent in 2013 to 20.2 per cent in 2014 and share of 9.7 GDP in 2014 (p.30) under the following specific activities:

- Growth in public investments in the infrastructure development activities and housing development projects.
- Increased credit granting to personal housing loan by commercial bank with 28.7 to 9.1 per cent in 2013 to attractive the construction activities (p.51).
- The industry also proven with significant growth from 9.9 per cent to 11.4 per cent in 2014 in construction sub sector and indicated that grew significantly and contributing: under the mining and quarrying, (p.44).

- in services sector the insurance, banking, real estate, transport and communication and hotel sub sectors growth with the help of construction sub sector (p.51).
- in expenditure in consumption and investment are increased and mainly facilitating to establish electricity, gas and water in infrastructure developments (p.54-57).

Above are factorized that Sri Lankan construction industry is in growth from year 2009 onward after eradication of 30 years terrorism conflict. Murdoch and Hughes (2008) stated that parallel to the growth of construction, particular issues are also increasing. So that each professional discipline likes to focus upon its own contribution to find potential solutions in order to maintain a healthy market and good practice which contribute to the sustainable development.

#### **2.1.1 Does dispute exist in construction contracts?**

This has been addressed by numerous scholars and saying as ‘yes’ status. Cheung and Yiu (2006) discussed in the abstract that construction disputes is inevitable in construction projects and research were based on three categories i.e. contract provisions, triggering events and conflict and pointed in the conclusion that construction professionals to exercise proactive dispute management.

The literature found that construction disputes under the different categorization. Cheng, Tsai and Chiu (2009) statement was that construction is with disputes which affects quality and incur project delays and struggle to identify ways to resolve them in equitably and economically. Memon, Rahman and Azis (2011) highlighted that cost is fundamental component for any construction project and cost overrun is frequently occurring issue in construction projects in worldwide.

In many research reports, dispute has been linked to the project delay and those disputes giving as reason/fact for that delay. McNair and Linke (2013) stated that one of the delays called concurrent delay in many projects are not addressed during drafting process which resulting in lack of certainty and lead to disputes.

Supardi et al. (2010) identified eight areas of project disputes with the weightage under defect, default, performance bond, damages, variations, termination, delay and payment.

Ellis and Baiden (2008) given another area in the construction that conflict between construction parties as principal, causes of poor performance and lead to prolonged delays in implementation, interruptions and sometimes suspension.

Elliott (2014) pointed out that adjudication is for dispute resolution and further dispute arises due to fraud in adjudication cases where address to Australian courts. For an example; *Hansen Yuncken Pty Ltd v Ian James Ericson trading as Flea's Concreting*<sup>(2)</sup>. Further, Mulcahy (2012) confirmed this category of disputes. Fraser and Johnson (2015) mentioned that disputes in construction contract refer to court resolution by main parties and engaged in years not months. The smaller subcontractors awaiting payment being underpaid for a long period of time which would not be viable option because their survival depend on a consistent revenue stream.

The disputes that arise in construction industry is not only applicable to one particular country and Rahman, Wang, Takim and Wong (2010) mentioned that situation as world phenomena. McGeorge, Love, Davis, Jefferies, Ward and Chesworth (2007) listed out various other research references to prove this phenomena which includes for disputes categorization with quantification for considerable period of time from 1985 to 2006 and reproduce as per following Table 2.1.



Table 2.1: World phenomena on Payment Disputes

| <b>Authors</b>   | <b>Year</b> | <b>Sources of disputes</b>   |
|--|-------------|--|
| Blake Dawson Waldron   | 2006        | 10 key issues in disputes  |
| Yiu and Cheung   | 2004        | 33 dispute sources identified (literature) & were ranked   |
| Kumaraswamy  | 1997        | 11 Time claim categories and 19 cost claim categories giving rise to two main groupings of causes of disputes and claims: root causes and proximate causes |
| Conlin et al.  | 1996        | Six areas: Project 2007-006-EP Page 16 of 62<br>438 dispute events on 21 projects in the UK  |
| Sykes  | 1996        | Two major groupings of claims and disputes   |
| Bristow and Vasilopoulos<br>Ontario, Canada  | 1995        | Five primary causes of claims  |
| Diekman et al.   | 1994        | Three areas  |
| Heath et al. Survey of 28 quantity<br>in the UK  | 1994        | Five main categories of claims & Seven main<br>type of disputes  |
| Rhys Jones General survey of<br>construction industry and lawyers                          | 1994        | Ten factors in the development of disputes   |
| Semple et al 24 projects in<br>Western Canada  | 1994        | Six commons categories of disputes   |
| Watts and Scrivener 72<br>judgements from 56 construction<br>litigation cases in Australia | 1992        | 59 categories of disputes and 117 sources of<br>disputes   |
| Hewitt   | 1991        | Six areas  |
| Diekmann and Nelson 427 claims<br>on 22 (federally administered)<br>projects in USA        | 1985        | Eight most common courses of contracts claims  |

Source: McGeorge, Love, Davis, Jefferies, Ward and Chesworth (2007)

This Table 2.1 and quoted researches prove that disputes in construction is more generous and inherent characteristics in the industry as well as occurs in various aspects and where appropriate solutions are necessary to maintain sustainable industry in any country.

Recently, Allen (2015) reported and labeled five construction disputes which has focused regional aspect and treated as global impact on construction industry. It covers significant number of countries and ranking was arranged to prove the current situation which can identify as per Table 2.2 below.

Table 2.2 – Ranking of causes of disputes in the selected region

| Sr# | Cause   | Rank in year 2014          |                                 |         |
|-----|---|----------------------------|---------------------------------|---------|
|     |   | North America, Middle East | Asia, UK and Continental Europe | Overall |
| a   | Failure to administer the contract  | 1, 1                       | 1, 1, 1                         | 1       |
| b   | Poorly drafted or incomplete and unsubstantiated claims   | 2, 2                       | 2, 2, 2                         | 2       |
| c   | Errors and/or omissions in the contract document  | 3, 3                       | 3, 3, 3                         | 3       |
| d   | Failure to understand and/or comply with its contractual obligations by the employer/contractor/subcontractor | 4- , 4-                    | 4, 4, 4                         | 4       |
| e   | Failure to make interim awards on extensions of time and compensation   | 4-, 4-                     | 5, 5, 5                         | 5       |

Source: <https://www.arcadis.com>

All these explanations above highlight that disputes in the construction is a global phenomenon. As per the IMaCS report (2014) indicated that there are lot of disputes exist in local construction industry in Sri Lanka and mainly they are: high cost of construction materials; lack of skilled workers; frequently changes in legislation; lack of funds as influential issues which have been contributing to the disputes.

Among the different categories of disputes the payment dispute in construction contract is applicable for the selected issue and this research would continue accordingly.

### **2.1.2 Narrow down area to the issue – ‘Payment dispute’**

The following justification is given that why payment dispute is selected in this research.

The Surveyor’s Construction Handbook (2009) explained that cost is one of the main project characteristics as well as client’s objective. It further defined as ‘... discrete piece of work with clear start and finish dates, providing specified benefits at **accepted cost**’. Now this can prove that all the activities in the project are subject to the cost. However, the cost activities in project are handled by contract parties which would affect to the cash flow activity as per Lord Denning (1971).

There are numerous count of research findings that provides the situation of payments disputes that exist in the whole over the world and few are quoted for an example. Alaghbari et al. (2007) confirmed that “financial related factor is one of the most critical factors that cause delays in construction projects”. This was supported by G. Sweis, Sweis, Hammad, and Shboul, (2007). Abstract in Rahman et al. (2009) report revealed that “... poor cash flow management is the most significant factor that leads to a project’s delay followed by late payment, insufficient financial resources and financial market instability”. Jaffar, Tharim and Shuib (2011) confirmed in their conclusion that conflict in construction industry arise due to factors of contractual problems which includes delay interim payment from client.

Introduction in Ramachandran and Rotimi (2015) stated that “Payment problems in the construction industry are not a new phenomenon” and quoted that more than four decades researches on the same subject from Banwell, 1964; Latham, 1994; Wu, 2010; Ye and Rahman, 2010; Wu, Kumaraswamy and Soo, 2011.

Ekanayake (2014) selected road projects in six countries and identify cause for the delays of project. Accordingly, it proves that one of main causes of delays of project was due to late payments and can be ranked as first as per following Table – 2.3.

Table – 2.3: Cause of delay

| Country                                     | Cause of delay |                 |                   |              |                 |                   |               |                  |
|---|----------------|-----------------|-------------------|--------------|-----------------|-------------------|---------------|------------------|
|   | Late payment   | Poor Management | Lack of materials | Under budget | War and strikes | Land acquisitions | Environmental | Variation orders |
| Kenya (Seboru&Atibu, 2006)                  | X              | X               |                   |              |                 |                   |               | X                |
| Malaysia (Sambsivan& Soon, 2006)            | X              | X               | X                 |              |                 | X                 | X             |                  |
| Pakistan (Razik, Haq&Aslam, 2013)           |                | X               | X                 |              | X               |                   |               |                  |
| Malawi (Kamanga&Stewen, 2013)               | X              |                 | X                 | X            |                 |                   |               |                  |
| Saudi Arabia (Gaza Strip) (Alhomidan, 2013) | X              | X               | X                 |              | X               |                   |               |                  |
| Palestine (Mahamid, 2013)                   | X              | X               | X                 |              | X               |                   |               |                  |
| <b>Total</b>                                | <b>6</b>       | <b>5</b>        | <b>6</b>          | <b>1</b>     | <b>3</b>        | <b>2</b>          | <b>2</b>      | <b>1</b>         |
| <b>Rank</b>                                 | <b>1</b>       | <b>3</b>        | <b>1</b>          | <b>7</b>     | <b>4</b>        | <b>5</b>          | <b>5</b>      | <b>7</b>         |

Source: Ekanayake (2014)

When the situation in global as above, there is no difference in the Sri Lankan context too. The National Construction Association of Sri Lanka [NCASL] (2010) stated that:

the issue of late payment has been considered one of outmost important to all contractors and to a lesser extent to those to expect speedy completion of a contract. As a matter of fact late payments are considered to the one of the main factors that have led some contractors to abandon the contract.

The NDB Stockbroker's report (2010) for Sri Lankan Construction Industry has prepared a report on behalf of the suppliers' contribution to the industry which also pointed out many disputes and one of the main issues as the late payment and it can be quoted in their own words as below.

Lack of availability of funds remains a serious concern for the industry... as majority of the large scale construction projects are government initiated, many contractors face delays in receiving payments. As a result the subcontractors and other workers involved, face financial difficulties while it also creates a negative impact on the suppliers of materials. This can be addressed by arranging specialized financial assistance schemes aimed at the development of the industry.

Having considered numerical examples based on world phenomena and situation in Sri Lanka, it proves that payment dispute exist in current practice where it requires potential solution. This is the narrow down area for the selected research issue which can be helped for a sustainable development in the construction industry ultimately.

## **2.2 Rational solution over the payment dispute**

In the world, various scenarios that could ignite payment disputes in a construction contract were identified in the previous section. In addition, Rahman et al. (2009) explained that 'late payment is defined as a failure of a paymaster to pay within the period of honouring of certificates as provided in the contract'. Stagg (2011) mentioned that non-payment is not paying the money that has been agreed to pay upon execution as rights to receive on discharge of obligation. Both reports prove that disputes on payment in any construction contract need solution and there are two types of rational approaches available to answer (solution) payment disputes i.e. either:

- Standard Practice (commonly accepted to the particular community) or
- Legal approach upon failing of standard practice

These rational approaches are being practiced for decades in the construction industry in all over the world. During lengthy application both are identified that expected outcome getting far less.

### 2.2.1 Failure on Standard Practice

The cash flow in a contract is one of main factors that decides the success of a project as proved in many researches. The Construction Industry Working Group on Payment [CIWGP] (2007) stated that ease of cash flow is an essential element in delivering a successful project. The standard practices Cash flow management is defined as a process of monitoring, analyzing and adjusting projects' cash flow (Ward, 2008) and advice to avoid an extending of cash shortages that are caused by having too great a gap between cash inflows and outflows. Rahman et al. (2009) abstracted that '... clients achieving a well-managed cash flow in order to obtain a prompt payment practice in the construction industry'.

Makepeace (2012) explained that maintain cash flow in the sense of advance payment, part payment, interim payment and or stage payment which eliminate the need for the contractor to borrow money for the funding of the project in order to overcome payment dispute (paper 0424, p.16). Hence, provisions include every contract (commonly in form of contract) to reimburse a contractor's projects expenditure and few examples are listed in Table 2.4 below.

Table 2.4: Payment provisions in a form of contract

| Terms reference            | Clauses   | Brief explanation  |
|----------------------------|---|--|
| 'Direct payment' provision | 14.2 to 14.13                                       | All stage payments are covered – Advance; interim and final  |
| On 'obligation'            | 8.7,  | Liquidated Damages if project is delayed by the contractor   |
| Regards 'rights'           | 13.   | Variation evaluation and payment   |
| Address for 'liabilities'  | 1.9, 2.1, 4.7, 4.11, 4.16, 7.3, 8.4, 8.9 10.3, 13.6 | Time and additional cost to be given by the Employer on each events arise for which the Employer is responsible. |

Source: ICTAD/SBD/02 (2007)

In the first instance, a payment disputes arise due to mismanagement of the standard clauses. For an example in the UK, in *Eurico SpA v Philipp Bros.*<sup>(3)</sup>, the leading case stated that they have constitutional free market and it is well established contract doctrine where the parties to a contract are free to choose the terms of their contract; Murdoch and Hughes (2008) also stated that construction is the client lead market. Therefore, most of provisions are established in favour of client's requirement. In other words, "practice is questionable because an amended contract may fall into the category of an 'employer's standard terms of business' because the employer who does the preparation of tender documents and such that the concept of contract often becomes severely distorted. This book (in page 103) further stated that "the nature of business is such that a potential trading partner can be put off by too much emphasis on negotiating contractual issues while the bargain is being struck".

The second point is given by Hughes and Greenwood (as cited in Murdoch & Hughes, 2008) that the weakness of Standard Conditions of Contract due to following reason:

‘... the standard forms are rarely used as printed and it is common in the industry for people to amend the printed form, by striking out clauses they do not like and adding in their own preferred clauses’ (p.101).

This is how where the payment disputes would initiate at the beginning of the contract. Even having a proper 'Contract Document' also the issues still exist and payment dispute occurs inevitably. The third reason is that parties breach the contract by failing to honour provision(s) knowing the consequences. Therefore, parties' behavior tend to create a payment dispute. In this scenario parties' intention is very clear and difficult to reach a consensus.

These kind of events could end up the contract administrative approach and start to proceeding in the legal aspect as the next step in order to resolve a dispute through mostly by litigation, arbitration and adjudication methods.

### **2.2.2 Failure on legal approach**

In the construction contract the 'law of contract' assists to overcome many contractual issues. The law of contract defines by Sir George Jessel in *Printing and Numerical Registering Co. V Sampson*<sup>(4)</sup> and mentioned that:

If there is one thing more than another which public policy requires, it is that men of full age and competent understanding shall have the utmost liberty in contracting, and that their contracts, when entered freely and voluntarily, shall be held sacred and shall be enforced by the Courts of Justice.

As Atiyah (2003) points out in an Introduction to the Law of Contract:

the emergence of the law of contract is really the result of the adoption of the theories of natural law, which propounded the idea of an inalienable right of people to own and deal with property, and that the state via the law should interfere as little as possible with the affairs of individuals.

Thus it is proved now that the law is able to help construction contract to achieve the expectation if parties unable to resolve disputes themselves. If there is a contract, Uff (2003) stated that:

if a contract exists the court will determine what its terms are, for instance, when part of the agreement is in writing and part oral, or when there are implied terms accordingly give decision to adhere as final and binding.

Even there is not a contract – The courts might become involved, again at someone's expense, and the work executed to date may have to be paid on a quantum meruit basis ('for what it's worth – the current value irrespective of any schedules or prices that may have been submitted).



While looking at solution for the payment issue through the law, the legal remedy is reasonable approach but it is adversarial method on finding a solution, the reason being:

- This can be started upon completion of the contract at many cases.
- Lengthy time to settle
- Costly and parties relationship break up
- Parties trade/brand name is in media and open to the public
- Badly effect on their long term business relationship

Further, instances of failure on legal application on payment disputes is identified by Charrett (2009) and stated that construction projects (selected) as shown on Table 2.5 in Australia being struggling to settle disputes and recent projects are taking lengthy process compared to decades before.

Table 2.5 – Period of dispute settlement for 13 projects

| Project # | Contract value    | Dispute start | Dispute settle |
|-----------|-------------------|---------------|----------------|
| 1         | \$ 450 m          | 1987          | 1991           |
| 2         | \$ 75 m           | 1988          | 1990           |
| 3         | \$ 100 m          | 1988          | 1991           |
| 4         | \$ 35 m           | 1991          | 1993           |
| 5         | \$ 105 m          | 1998          | 2000           |
| 6         | \$ 50 m           | 2000          | 2002           |
| 7         | \$ TBA            | 2003          | 2003           |
| 8         | \$ 94 m           | 2006          | 2007           |
| 9         | \$ 240 m          | 2006          | Ongoing        |
| 10        | \$ 1,300 m        | 2007          | Ongoing        |
| 11        | \$ 57 m           | 2007          | Ongoing        |
| 12        | \$ 1 b (approx.)  | 2007          | Ongoing        |
| 13        | \$ 500 m (arppx.) | 2007          | Ongoing        |

Source: Charrett (2009)

This table reflects that once dispute arises in construction industry the settlement process is complex and time consuming.

Currently, both approaches as per sections 2.2.1 and 2.2.2 are in practices. But payment disputes are common in construction contracts and a common phenomenon in the current world. Therefore, world was keen to find better solution beyond the both practices i.e. standard practice and legal application.

### **2.2.3 New approach against conventional method – ‘SOP concept’**

Elliot (2005) stated that around nineties, the cost on buildings construction in the UK was more than in any other European country. One of main reasons as highlighted that main contractors were creating disputes with their subcontractors in order to delay paying them. The result was that ‘hardworking and innovative subcontractors were being put out of business by old lags with old connections, and in many projects there was no climate of problem solving, but rather of digging trenches for the expected protracted dispute process at the end’. This has been further explained by Makepeace (2012) for the same period in the UK as,

... most of powerful main contractors are able to treat subcontractors who have less commercial clout, less money and tighter margins. Such subcontractors are often told that they simply will not secure the contract unless they are prepared to accept the main contractor’s terms, however onerous. Particularly in a recession, the subcontractor will be need of the work and will have no option but to agree. This enables the main contractor to impose such terms as the notorious ‘pay when paid’ clauses under which the subcontractor has no right to be paid until the main contractor receives payment from the employer (paper 3719, p.4).

Not only the UK, yet the Australian situation could also be cited as a similar scenario. Rodighiero and Carroll (2014) stated that before 2004 in construction contracts most of subcontractors suffer with 'pay when paid' clause in the subcontractors' agreement and explain that when the contractor does not receive payment under the head contract due to failure to comply the requirements for making a claim under the head contract, a relevant subcontractor preclude entitlement to receive payment as the contractor's non-compliance with the head contract is out of the subcontractor's control.

ARRU (2014) added another example to Australia, tactic of unduly devaluing or delaying payment due under a construction contract is aimed at enhancing the cash flow of one contracting party at the expense of the other. The report taken effective parties as small subcontractor like bricklayers, carpenters, electricians and plumbers, do not get paid for their work and many of them cannot survive financially when that occurs with severe consequences to themselves and their families.

Thirdly, in Singapore, Pillai (2010) stated that:

prior to 2005 their subcontractors also suffer cash flow difficulty. Without adequate cash flow, contractors and subcontractors to find self-finance construction projects on their own. Therefore, lack of finance a building projects come to a complete standstill when the party no longer to bear the burden of its financial commitments, collapses into insolvency. Prior to 2005, undesirable practices that most of construction contracts were in 'pay when paid' clauses which raising any number of unmeritorious disputes against claims for payment and numerous construction firms in Singapore faced financial demise.

One solution for the situation was introduced in the UK by Latham report (1994) as **‘Security of payment (SOP)’** concept and adapted by many countries later. Liu (2015) identified two-fold in the concept i.e. thing that is intend to stop unjustified delay of cash flowing through the supply chain parties with periodic payments and secondly to introduce a fast track dispute resolution process which resolve problems quickly during a project.

The plausibility of this concept was identified by many countries while referring to their objectives at the time of legislation approval and can be highlighted as applicability of the concept for solution for payment disputes.

During 1990s, the construction industry in Singapore also practiced that most of sub-contracts agreements contain that the sub-contractor is only entitled to be paid when the main contractor has himself received payment. Even main contractors’ own default or breach the payment withhold by the employer and not paid to the sub-contractors although the default or breach was not caused or contributed to by the sub-contractor in *Brightside Mechanical and Electrical Services Group Ltd v Hyundai Engineering and Construction Co Ltd*<sup>(5)</sup>; *Interpro Engineering Pte Ltd v Sin Heng Construction Co Pte Ltd*<sup>(6)</sup>. Therefore, Singapore enacted the SOP Act in 2004.

Ramachandra and Rotimi (2010) explained that early 2000 in New Zealand construction industry also suffered with more liquidation in construction companies because clients and developers failed to pay for the works executed by the companies and their subcontractors.

Therefore, the Construction Contracts Act (CCA) 2002 was enforced in April 2003 and facilitates regular and timely payment between parties by prohibiting conditional payment provisions.

In Hong Kong (HK) also the situation on payment issue was the same. Cheng et al. (2009) pointed out that this situation and addressed that:

Even payment secured to the main contractor, there are no effective means to ensure that such payments can flow down through the sub-contractors to the workers, hence party along the chain would result in an interruption of the cash flow, leaving the lower tiered sub-contractors and workers at peril. Then the Provisional Construction Industry Co-ordination Board (PCICB) was established on 28<sup>th</sup> September 2001 to spearhead industry reforms and propagate a new culture of change, basically for SOP.

Wallace (2013) explained that Queensland promulgated the “Building and Construction Industry Payments Act 2004 (Qld) (“the BCIPA)” and the object of BCIPA is to:

ensure that person is entitled to receive and able to recover progress payments, if they undertake to carry out construction work, or supply related goods and services, under a construction contract because contractors in an industry that typically operates under a hierarchical chain of contracts with inherent imbalances in bargaining power.

Arthur (2013) said that the “Building and Construction Industry Security of Payment Act 2002” was enacted in Victorian, Australia and main objective is to ensure that:

a person who carries out construction work or supplies related goods and services under a construction contract is entitled to receive, and able to recover, progress payments for such work, or supply of goods or services with an expedited and cost effective process for recovering the payment in accordance with the Act.

Coggins, Elliott and Bell (2010) stated that two distinct construction industry payment legislative models operating in Australia – “East Coast” and “West Coast” to achieve the objectives that the Act is to facilitate the flow of cash in a swift manner down the hierarchical contractual chain on construction projects so that “improving payment outcomes for all parties operating in the building and construction industry”.

With the examples above the SOP concept proves the capability to cater the solution for payment dispute in the construction industry and the literature has been conducted to identify its source.

### **2.3 Sources of SOP concept**

The current practicing of SOP concept was initiated in the UK by Sir Michael Latham. In his ‘Constructing the Team report (1994), he had reviewed other countries’ approaches on payment disputes and highlighted that Ontario Construction Lien Act 1983 and German Civil Code (Section 648) which is Builder’s Lien system practice had taken as basic guidance. According to the article 10.7 in Chapter 10 of his report, the Builder’s Lien system provided ‘a contractor or trade contractor was able to demand a mortgage on land on which work was being carried out by the firm’. But it did little help to the subcontractors.

This was the idea that contractors would be received one way of security on the expenditure. However, this had been further developed by Germany with the Contractors Security Law in 1993 which allowed the German contractors to demand ‘adequate security’ from their employers for the balance of any money payable to them under the contract and following further provisions were exist.

- Provision is applicable to consultants and subcontractors contracts but not for suppliers.
- Public authorities are exempted.
- The right to demand security payment is statutory and cannot be excluded by contract.
- It is in practice to be achieved through bank guarantees or surety bonds.
- Failure to provide adequate security by the employer or the main contractor the law allows the main contractor or the subcontractor the right to suspend the works immediately, or, ultimately, to terminate.

Similarly, Ramachandra and Rotimi’s (2011) report stated that New Zealand had the Wages Protection and Contractors’ Liens 1939 Act which enacted to claim a lien over the estate or interest of the owner in the land. However, the repeal of the Act in 1989 left contractors and subcontractors unsecured.

#### **2.4 Initiate SOP concept and its evolution until modern day**

In the recent past, the UK government commissioned Sir Michael Latham and according to his market research the report reflected that central problem in the construction industry was ‘cash flow’. Sir Michael put it as “trust and money” and suggested solution was to *restrict the right of set-off and also to introduce a right to adjudication* (Elliott, 2005).

Based on the Latham report the UK government had forwarded a bill to the parliament and discussed SOP system and inbuilt an ‘Adjudication’ to activate a process. In the Parliament debate the Lord Ackner, House of Lords spoken out under the rubric of ‘pay now argue later’ which is a sensible way of dealing expeditiously and relatively inexpensively with disputes which might hold up completion of important contracts.’ (Hansard, 1995). Accordingly, the UK government had introduced the Act which named the “Housing Grants, Construction and Regeneration Act – 1996” (Designing Building Wiki, 2015) and the Act sets out the following objectives to achieve as:

- The right to be paid in interim, periodic or stage payments
- The right to be informed of the amount due, or any amount to be withheld
- The right to suspend performance for non-payment
- The right to adjudication
- Disallowing pay when paid clauses

This was widely recognized as ‘Security of Payment (SOP) Act’ in the UK and also naming as ‘HGCR Act 1996’ or the ‘Construction Act’. According to the Construction Act, there are three main tiers identify as per Table – 2.6.

Table – 2.6: Main Tiers in UK SOP Act

|   |  |
|---|--|
| ss 104 – 107:<br>define the act and<br>their provisions | This is the first tier and demarcate the Act applicability in the UK construction industry   |
| ss 108:<br>dispute resolution<br>application            | Introduce an ‘Adjudicator’ as the party to control the process in order to expedite the settlement process during the construction process rather than waiting to judge to decide at end of the completion at fail stage.  |
| ss 109 – 113:<br>address for<br>payment rules           | The Act how would apply: either it must contain adequate clauses as to payment and dispute resolution by adjudication in the contracts or in default, these will be imposed on the parties by the operation of the Scheme for Construction Contracts in the UK industry. |

Source: The Construction Act, 1996



#### **2.4.1 Pros and cons on modern SOP application**

Now, what is SOP application and world approach is cleared. The modern applicability on SOP practice found few criticism to identify their pros and cons.

Ten years after the SOP Act became law, the Construction Act in the UK is a boisterous, perplexing triumph (Bringham, 2008) and further stated that:

The Construction Act, those payment rules, this adjudication thing is 10 years old! I rank this piece of legislation as the most important act of parliament in our world of building and civil engineering; I rank this piece of legislation as the most successful thing to happen in our world of commerce; I rank this piece of legislation as the most remarkable step in the English legal system. The feature that astonishes me most is cash flow. The new payment rules, together with the thought of getting a thick ear from an adjudicator, really does move cash. More than that, it stops dead the bloke who thinks he should be paid for this or that because an adjudicator shows him he is owed nothing.

Before the brat, before 1 May 1998, what was to be done about payment disputes? Well, what you could not do was litigate. The courts in 1998 could not decide a dispute without “a deep forensic investigation”. But commerce, particularly building contractors, needed something faster – miles faster. Something within days, even if it was broad-brush; and we were given a system that an awful lot of lawyers thought was daft. The row was stopped, temporarily at least, by an industry wallah, unconnected with the project, deciding in the round whether the money should be paid or not.

Cash flow starvation tactics were tackled immediately and effectively. Start to finish, the process was 28 days ... crash, bang, wallop. None of that needed lawyers. And I bet, if you pause here, all that makes sense, doesn't it? All it needed was an engineer, QS or architect to look, sniff, prod and decide."

Elliott (2005) stated that adjudication through SOP has rapid growth after the Construction Act in UK and parties who affect them is shown in Table – 2.7 as follows.

Table – 2.7: Parties effect on SOP

|                    |   |
|--------------------|---|
| Building owners    | Good news. Anecdotal evidence suggests that the construction process is more efficient, thus buildings are cheaper, with adjudication |
| Main contractor    | Probably good news  |
| Trade contractors  | Very good news  |
| Insurers           | Probably neutral  |
| Judges             | Bad news for some   |
| Lawyers            | Good news for effective solicitors, bad news for the ineffective. Bad news for the bar  |
| Arbitrators        | Bad news  |
| Mediators          | Bad news  |
| Claims consultants | Generally bad news  |

Source: Elliott, 2005

After ten (10) years of duration the UK has realized that there are loopholes within the Act and it was amended on 2011 and mainly considered for,

- The dates for payments must be set out in the contract.
- The client (or specified person) must issue a payment notice within five days of the date for payment, even if no amount is due.
- The client (or specified person) must issue a pay less notice (previously a withholding notice) if they intend to pay less than the amount set out in the payment notice, setting out the basis for its calculation.
- The notified sum is payable by the final date for payment.
- Pay when certified clauses are no longer allowed, and the release of retention cannot be prevented by conditions within another contract. So for example work contractors on a management contract project must have half of their retention released when their part of the works reach practical completion, not when the project as a whole reaches practical completion. This also applies to trade contracts on construction management contracts.
- There are also changes to the right to suspend work for non-payment, or to suspend part of the works, and to claim costs and expenses incurred and extension of time resulting from the suspension.

Same as in the UK this system was adopted by Australia and with more than 15 years' experience the following selected things were found in the literature in order to identify the key parameters.

Skaik, Coggins and Mills (2015) identified that Australia had introduced the Construction Industry Security of Payment Act 1999 in New South Wales (NSW) and West Coast Model Acts was introduced later which is more akin to the UK Act. The adjudication was part of the Act in order to activate the process and McDougall J has stated in *Chase Oyster Bar v Hamo Industries*<sup>(7)</sup> that:

provides a very limited time for adjudicators to make their decisions on what, experience shows, are often extremely complex claims involving very substantial volumes of documents ..., so that the interim enforcement of adjudication determinations that are perceived as lacking in quality has many negative ramifications not least of which is a proliferation of judicial challenges to adjudicator's decision which results in extra costs to disputing parties and a general undermining of faith which the construction industry has in adjudication.

Chuah and Chow (2010) revealed that Singapore's jurisdiction enacted the SOP Act as Building and Construction Industry Security of Payment Act and came into force on 1 April 2005. They stated that:

The adjudication is an inbuilt process to support the Act and but many adjudications in Singapore were set aside while there challenges in court giving the reason that the SOP Act is largely silent on the ground for setting aside an adjudication determination. This is basically based on two grounds as 'dispute in issue falls outside the ambit of the adjudicator's power or competence' and 'determinations can be attacked on the basis that the process or conduct of the adjudication was defective or irregular or that these do not comply with the requirements of the SOP Act.

Pillai (2010) pointed out that SOP Act in Singapore is problematic if an adjudicator would not be considered. For an example, '... The main key provision in the Act [(Section 15(3))] is that where a respondent fails to provide any reasons for withholding payment in its payment response, it will not be permitted to raise those reasons later in its adjudication response'.

Other than above key criterion, the judicial involvement has a significant factor which has supremacy power to overcome the adjudication decision and if necessary be void subject to the particular country law. This has been proved in **Built Environs v Tali Engineering**<sup>(8)</sup> and Justice Blue in by principle of law based on ‘natural justice’ and adjudication decision was void (Brennan & Schwarz, 2013).

Robinson (2008) also explained that adjudication in SOP is more challenging in court by loosing parties and concluded that error on adjudication decisions. Ex. **O'Donnell Griffin Pty Ltd v Davis**<sup>(9)</sup> and jurisdiction argue that adjudicator had invoked some supervisory jurisdiction vested in the court over inferior courts or tribunals.

#### **2.4.2 Different SOP approach in other countries**

World behavior on SOP concept is not same as in every country. For instance in the United State of America and Canada are also having payment issues in their construction industry and ‘pay when paid’ and ‘pay if paid’ application between main contractor and subcontractors are common as per Malacki (2015) and following things are abstracted to explain their situation.

In Canada, the courts are unwilling to imply ‘pay when paid’ clauses even available in any subcontract agreement by stating that the “ordinary presumption is that contractors are obligated to pay their subcontractors” in **Tam-Kal Ltd v Stock Mechanical**<sup>(10)</sup>. The court’s approach is not to apply an implied terms unless the circumstances make it necessary to give business efficacy to the subcontract.

## 2.5 Identify influential key factors on SOP concept

In order to set up the SOP concept, the identifying of influential key factors are important and those are chosen from world approach rather being subjective to one particular country context/Act.

Having discussed evolving of SOP concept all countries were followed the UK model by modifying to suit their requirements. In the UK Act there are three tiers as proposed in Table – 2.6 above and while looking at other countries' Act that same three tiers can be identified. With this same basis the influential key factors on SOP discussed based on following countries.

- UK
- Australia
- New Zealand
- Singapore

### 2.5.1 First Tier – SOP definition and introduction

The definition of SOP concept can be seen in first part in every Act. Their significant features are highlighted in order to understand Act's provision properly. The individual Acts are shown under separate Table – 2.8 to Table – 2.11 in blow.

Table 2.8: First Tier in UK SOP Act

| Reference   | Cover up rules   | Observation  |
|-------------|--|--|
| S104 – S107 | <i>Named as Introductory provisions</i><br>104 & 105 – definition<br>106 – excluding area<br>107 – special requirement (contract in writing) | <ul style="list-style-type: none"> <li>• Act allows for agreement to do architectural, design and surveying work and</li> <li>• It is mainly for construction contracts</li> <li>• It excludes for contract of employment, certain construction operation as per 105.(2).(a) to (e ) and contract with residential occupier.</li> <li>• The section 107 deleted in revised Act.</li> </ul> |

Source: Housing Grants Construction and Regeneration Act 1996 and further Revision 2009

Table 2.9: First Tier in South Australian SOP Act

| Reference | Cover up rules   | Observation  |
|-----------|--|--|
| Part 1    | <i>Named as Preliminaries</i><br>1 Short title<br>2 Commencement<br>3 Object of Act<br>4 Interpretation<br>5 Definition of construction work<br>6 Definition of related goods and services<br>7 Application of Act | The Act drafted with in-details explaining than UK Act.<br><br>Only few activities are only excluded compare to UK Act as per 105.(2).(a) to (e ).<br><br>Specially definition is given for goods and services |

Source: Building and Construction Industry Security of Payment Act 2009

Table 2.10: First Tier in New Zealand SOP Act

| Reference | Cover up rules   | Observation   |
|-----------|--|---|
| Part 1    | <i>Named as Preliminary provisions</i><br>1&2 Content<br>2 Purpose<br>3 Overview<br>5- 7 Interpretation<br>8to12 Application | The Part 1 clearly guide about the objectives of Act.<br>Interpretation is good approach to understand the correct application. |

Source: Construction Contracts Act 2002

Table 2.11: First Tier in Singapore SOP Act

| Reference | Cover up rules   | Observation   |
|-----------|--|---|
| Part 1    | <i>Named as Preliminary</i><br>1 Short title<br>2 Interpretation<br>3 Definitions of ‘construction work’, goods and services | It has covered for basic explanation when compared to the UK Act. |

Source: Building and construction industry security of payment Act 2005

### 2.5.2 Second Tier – Adjudication process

The second tier of the Act is about the ‘Adjudication’ process. Other than the Engineer to the contract the Act provides opportunity to engage independent third party to resolve the payment disputes. The beauty of the Act is that any party who are in the project can be benefited at any time in the construction stage. The necessary power and authority is vested in the Act. Only pit fall is that Adjudication process to be conducted appropriately to avoid challenges by the Court. Once both parties are agreed the Adjudication decision it would be final binding agreement unless otherwise not re-visited in Arbitration. The significant areas are abstracted in following Tables – 2.12 to Table – 2.15.

Table - 2.12: Second Tier in UK SOP Act

| Reference | Cover up rules  | Observation  |
|-----------|---|--|
| S108      | <i>Named as Adjudication</i><br>Right to refer disputes to adjudication | Instruction provided under section 108.(1) to 108.(6). Among it clause (1) to (4) are to be tested against construction contract otherwise clause 108(5) says Act would apply. |

Source: Housing Grants Construction and Regeneration Act 1996 and further Revision 2009

Table - 2.13: Second Tier in South Australian SOP Act

| Reference            | Cover up rules   | Observation  |
|----------------------|--|--|
| Part 3<br>Division 2 | <i>Named as Division 2 – Adjudication of disputes</i><br>Clause 17 to 27; Adjudication applications to Claimant may discontinue adjudication | Comparing to the UK Act, this has in-detail about Adjudication procedure which would reduce to provide firm decision by Adjudicator. |

Source: Building and Construction Industry Security of Payment Act 2009



Table - 2.14: Second Tier in New Zealand SOP Act

| Reference | Cover up rules   | Observation   |
|-----------|--|---|
| Part 3    | <p><i>Named as Adjudication of disputes and</i></p> <p>Subpart 1 – Preliminaries<br/>Clause 25 to 27</p> <p>Subpart 2 – Procedure for initiating adjudication and appointing adjudicator (Clause 28 to 37A)</p> <p>Subpart 3 – Conduct of adjudication proceedings<br/>Clause 38 to 44</p> <p>Subpart 4 – Adjudicator's determination<br/>Clause 45 to 57</p> <p>Subpart 5 – Effect of adjudicator's determination<br/>Clause 58 to 61</p> <p>Subpart 6 – Miscellaneous matters relating to adjudication (Clause 62 to 71)</p> | Compared to the SOP Act in UK and Australia the Act in New Zealand provide further details to follow the Adjudication process smoothly. |
| Part 4    | <p><i>Named as Review and enforcement of adjudicator's determination</i></p> <p>Subpart 1AA – Review of adjudicator's determination (Clause 71A to 71D)</p> <p>Subpart 1 – Suspension of work (Clause 72)</p> <p>Subpart 2 – Enforcement of adjudicator's determination (Clause 73 to 78)</p>  | This part is clearly covered in the Adjudicator's entitlement and compare to all other Acts this has covered maximum explanation.       |

Source: Construction Contracts Act 2002

Table - 2.15: Second Tier in Singapore SOP Act

| Reference | Cover up rules   | Observation  |
|-----------|--|--|
| Part IV   | <i>Named as Adjudication of payment claim disputes</i> (Clause 13 to 22)             | It is covered of appointment and procedure for Adjudicator.  |
| Part V    | <i>Named as Measures to enforce payment of adjudicated amount</i><br>Clause 23 to 27 | The right reserves to Adjudicator for service provided to obtain relevant fee and any failing it the Adjudication Determination set aside.<br>The Act has allowed not only contract but also Lien of Goods matter too. |
| Part VI   | <i>Named as General provisions relating to adjudication</i> (Clause 28 to 34)        | The Act included for Adjudicators' professional practice for required qualification, maintain numbers on society, fee criteria upto the clause 34 requirements.  |

Source: Building and construction industry security of payment Act 2005

### 2.5.3 Third Tier – Act application by Jurisdiction

This is the prime feature in the SOP concept. The law of country plays a vital role to avoid and mitigate payment disputes irrespective of provision set out by contract parties to their construction contract. This is enable to treat with the parties fairly who has no bargaining power when contract needs to be established.

Table – 2.16: Third Tier in UK SOP Act

| Reference    | Cover up rules  | Observation   |
|--------------|---|---|
| S109 to S113 | <i>Named as Payment</i><br>109 – Entitlement of stage payments<br>110 – Dates for payment<br>111 – Requirement to pay notified sum<br>112 – Right to suspend performance for non-payment<br>113 – Prohibition of conditional payment provisions | Section 109 to 111 have overrule the payment clauses in general Conditions of Contract.<br><br>The Act plays important role on suspension of construction work which the contract between parties has no rights. Act has restricted to include unfavorable clause related to delay of payment |
| S114 to S117 | <i>Named as Supplementary provisions</i><br>114 – Scheme for construction contracts<br>115 – Service of notices<br>116 – Reckoning periods of time<br>117 – Crown application   | This has been generated to implement the Act.   |

Source: Housing Grants Construction and Regeneration Act 1996 and further Revision 2009

Table – 2.17: Third Tier in South Australian SOP Act

| Reference | Cover up rules  | Observation                                |
|-----------|---|--|
| Part 2    | <i>Named as Rights to progress payments</i><br>Clause 8 to 12   | This has address well than UK Act.         |
| Part 3    | <i>Named as Procedure for recovering progress payments</i><br>Division 1 – Payment claims and payment schedules (Clause 13 to 16)<br>Division 3 – Claimant’s right to suspend construction work (Clause 28)<br>Division 4 – General (Clause 29 to 32) | This has been addressed well than UK Act.  |
| Part 4    | <i>Named as Miscellaneous</i><br>Clause 33 to 36  | Additional information relates to the Act. |

Source: Building and Construction Industry Security of Payment Act 2009

Table – 2.18: Third Tier in New Zealand SOP Act

| Reference | Cover up rules   | Observation  |
|-----------|--|--|
| Part 2    | <p>Named as Payments</p> <p>Subpart 1 – Prohibition of conditional payment provisions of construction contracts</p> <p>Clause 13</p> <p>Subpart 2 – payment provisions</p> <p>Clause 14 to 18</p> <p>Subpart 3 – Procedure for making and responding to payment claims</p> <p>Clause 19 to 24A</p> | <p>This Act has highlighted about ‘pay when paid’ phrases by prohibition of application as main part of the Act under clause 13.</p> <p>The Act plays important role on suspension of construction work which the contract between parties has no rights. It is clearly given in this Act under clause 24.</p> |
| Part 5    | <p>Named as Miscellaneous provisions</p> <p>Clause 79 to 83</p>  | The administrative part is covered.  |

Source: Construction Contracts Act 2002

Table – 2.19: Third Tier in Singapore SOP Act

| Reference | Cover up rules   | Observation  |
|-----------|--|--|
| Part II   | <p><i>Named as rights to progress payment</i></p> <p>Clause 5 to 9</p>     | <p>In order to practice the Part III, all requirements are described upto clause 8.</p> <p>The clause 9 has dedicated to ‘pay when pay’ phrase practice and with this Act it has unenforceable condition including similar meaning to all.</p> |
| Part III  | <p><i>Named as Payment claims and responses</i></p> <p>Clause 10 to 12</p> | It covers for claimant’s payment process and payment response procedure has been covered. The failing of payment the rights served to the claimant to refer to the Adjudication.   |
| Part VII  | <p><i>Named as Miscellaneous</i></p>                                       | <p>The administrative part is covered.</p> <p>The ‘no contracting out’ provision is described very well compare to other Acts.</p>   |

Source: Building and construction industry security of payment Act 2005

## **2.6 Identify capabilities of present situation of Sri Lanka on SOP concept**

The entire discussion given in the Literature Review above proved that a SOP concept can be a potential solution for payment disputes in construction issues. The countries that have adopted this concept are continuing with several moderation where necessary to suit with their requirements. In order to introduce a SOP concept to Sri Lanka, present situation was examined and compared with the SOP concept to identify the possible capabilities literally.

The Literature review found that newly enacted two Acts in Sri Lanka would be supportive legislation to establish of a SOP concept when necessary.

First one is that “The Construction Industry Development (CID) Act No. 33 of 2014”. The Clause 67 – Interpretation of CID Act is very similar to first tier of one of SOP concept which is Clause 5.(1) and (2) of Part 1 of SOP Act 2009 in South Australia. The second feature of CID Act is that ‘Clause 51 of Part IX – Settlement of Disputes’ introduces the Adjudication process to settle the payment disputes and now it become part of the law in the country. According to the second tier of the any SOP Act refers to Adjudication procedure and hence, CID Act would facilitate the SOP concept requirement primarily.

The second Act is the Right to Information (RTI) Act No. 12 of 2016 in Sri Lanka which would also facilitate to SOP concept. The RTI Act needs to provide necessary information on Public services and in terms of construction contracts which is public client bounds to transfer the true information. This has obligation to public client in terms of SOP concept.

## **2.7 Chapter summary**

Literature Review proved that there are different types of disputes exist in construction industry which are common to every country. The payment dispute has been selected as it relates to the issue in research. Accordingly, numerous reasons are given to justify that payment dispute as one of major disputes and plausible area to conduct a research.

The selected issue in the research is a new solution for the payment dispute and reasons are given why new approach is necessary over to the conventional practices and extensive number of research findings available to support under Literature Review. The new approach is named as SOP concept where practices by many countries in the world but yet to be in Sri Lanka. Therefore, issue in this research is that ‘introducing of SOP concept in Sri Lanka’.

The SOP concept and its evolution had been discussed through the Literature Review in order to identify key factors for new application.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3 Introduction

Hart (2008) introduced different research types. The category of ‘applied research’ explained as “produce recommendations or solutions to some problems faced by a specific group of people in a situation” (p.46). Hence this research treated under above category and accordingly, problem is the payment dispute faced by Sri Lankan construction industry as specific group and aim of the research is to find a solution on it under the selected approach. Author further characterized that solution seems to be from theoretical insights (i.e. other countries’ approach) to real-world application (i.e. apply in Sri Lanka) which would be part of the research methodology. Kumar (2012) also stated that, the ‘applied research’ would be able, “to collect the information about various aspects of a situation, issue, problem or phenomenon” so that information gathered can be used for “policy formulation, administration and the enhancement of understanding of a phenomenon”. The flow of the research is suggested in Figure 3.1.

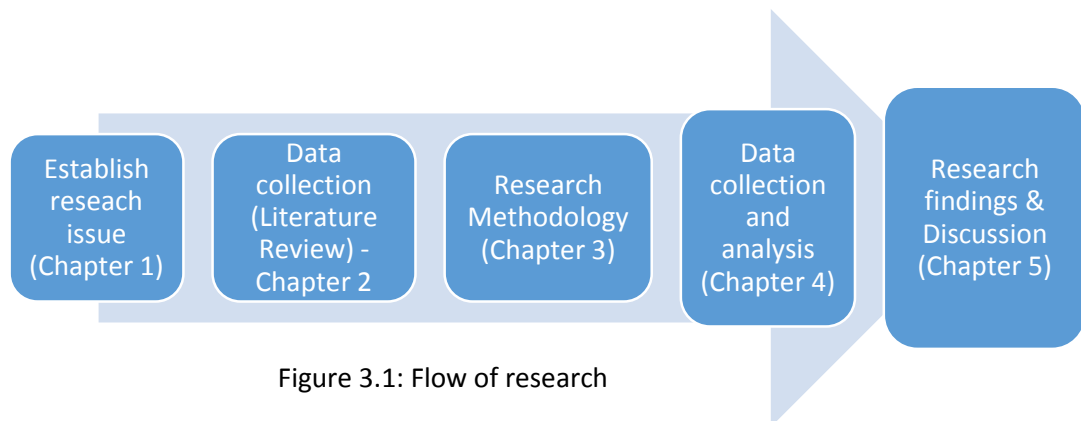


Figure 3.1: Flow of research

In brief, the Chapter – 1 deals with the introduction of the research issue and in order to achieve the final outcome the process has listed under the aim and objectives. Secondly, appropriate facts would be searched from Literature Review which is Secondary source data collection which include under the Chapter – 2. This Chapter (3) presents the Methodology of research design which would indicate how to trace of appropriate facts to find the solution.

The Chapter – 4 summarizes Firsthand Data (Primary Data) collection through interview process and subsequent analysis would be carried out based on collected both types of data. The Chapter – 5 are given for suggestion of findings (substantiate the potentiality of SOP concept to Sri Lanka) which formulated through the conclusion and recommendation.

This is qualitative type of research as per Denscombe (2003); Blaxter et al. (2006); Kumar (2012); Hart (2008) recommendation which features are comprised of: words which are the unit of analysis; description; small-scale studies; holistic perspective; and hoping to make an emergent research. The relevance of qualitative research is highlighted by Silverman (2008) and listed that four types of audiences would be able to address and out of that two parties are mostly applicable to this research, i.e. academic colleagues (who is grading this paper); policy-makers which helps practical information relevant to current policy issues.

### 3.1 Method of information collection

Kumar (2012) suggested that information gathering can be in two ways as ‘secondary sources’ and ‘primary sources’ and applicable parties are listed under the both categorization as per Figure – 3.2.

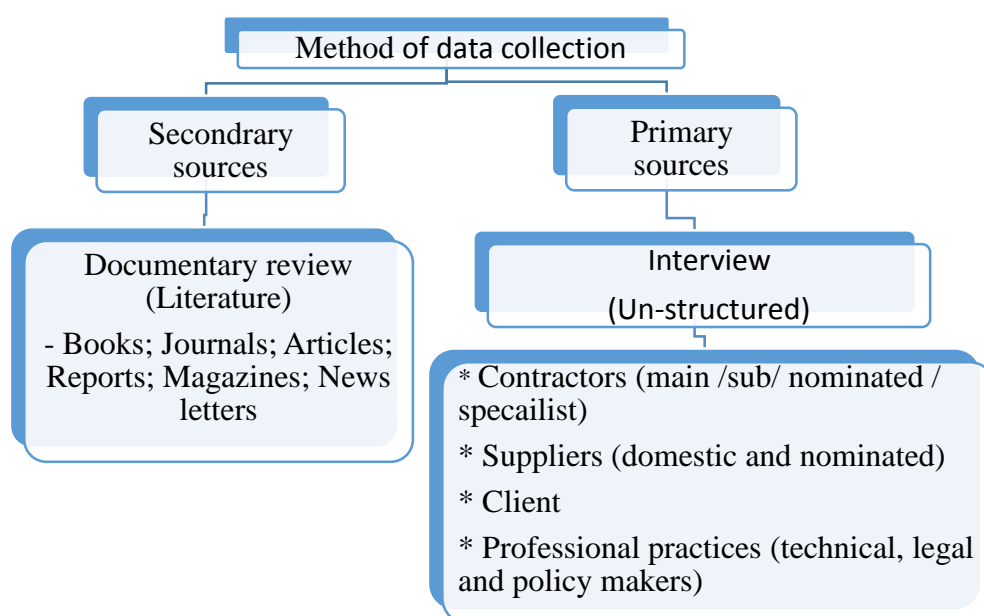


Figure – 3.2: Structure of data collection

The College of Estate Management (2003) stated that information is the data (groups of non-random symbols which represents quantity, action, things) that consist of real or perceived value for prospective decisions or actions (paper 9051, p.186). Glaser and Strauss (as cited in Denscombe, 2003) stated that “let the data speak for themselves for systematic analysis of the data” (p.111).

According to the Figure 3.2 the data collection would be as described below.

### 3.2 Secondary source data collection

The secondary source data collection means a Literature Review (LR) as per Hart (2008). It would be better approach to achieve first two objectives which is set-out in chapter 1. Kumar (2012) explained that flow of LR can be done by: search for existing LR; review the literature selected; develop a theoretical framework; develop a conceptual framework.

Kumar (2012) suggested two steps to narrow down relevant information in LR by: identify a broad filed or subject area of interest and; dissect the broad area into subareas which can be illustrated in Figure 3.3.

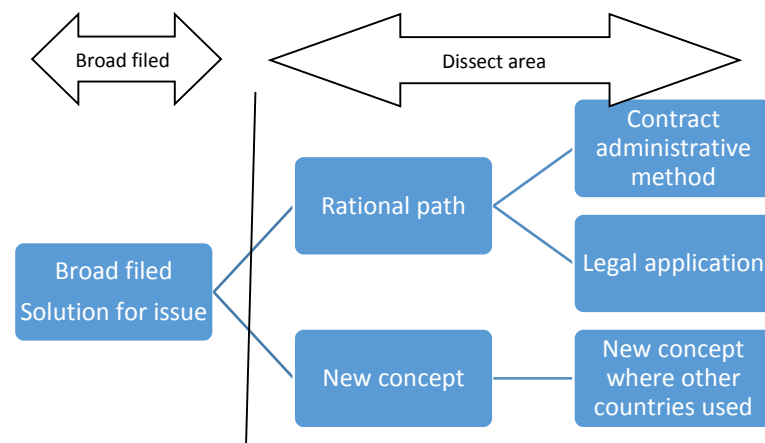


Figure – 3.3: Area classification

The selected issue in this research is to propose a new concept for the payment dispute in local construction industry which is very board area and dissect it to two manageable ways as indicated in Figure – 3.3 above.



### **3.2.1 Review LR**

Hart (2008) suggested that ‘reading monographs’ in (p.54) and recommended four steps: initial skim the documents, survey the parts of the book; look for signpost; read the part of chapter that you have identified as being important. The desk-top LR collection through documents stated in Figure 3.2 above.

Through the LR, first information looks to establish the selected problem that exists in the market which needs a solution. Secondly, it identifies currently available solution(s) for the disputes and reasons for failure. Thirdly, it discusses the proposed concept including advantages and disadvantages.

### **3.2.2 Develop theoretical and conceptual approach**

Kumar (2012) was given a paradox and saying that ‘until you go through the literature review you cannot develop a theoretical framework and until you have developed a theoretical framework, you cannot effectively review the literature’. Therefore, solution is to read some of the literature then attempt to develop. A framework is of two types as universal and more specific. Accordingly, SOP concept would focus on all applied countries as universal approach and specifically narrow down to identify suitable pattern for Sri Lankan purpose. With the narrative selection a conceptual framework would be proceed.

With the better understanding of subject matter through LR, the firsthand data collection being arranged as follows.

### **3.3 Primary sources data collection**

Primary sources provide firsthand information on data collection and Kumar (2012) stated that it determinant of the quality of the required data through potential respondents. The interview method is selected to collect the primary data. Denscombe (2003) defined that an interview has a lot of superficial similarities with a conversation and interviews involve a set of assumptions and understandings about the situation which are not normally associated with a casual conversation.

The primary source data collection enables to answer the third objective set-out in Chapter – 1. The applicable type of research interview in this regards would be unstructured methods. The reason being that market data collection through peoples providing information and flow of interview might be changed according to the person to person.

### **3.3.1 Primary sources – Market approach**

In order to identify the Primary Data (PD) on the selected issue from the local construction industry, an ‘interview’ method was selected. Identifying parties are important for the interview because interviewees’ words are ‘on the record’ and ‘for the record’ (Denscombe, 2003), to treat as first hand data to find the potential solution. Therefore, selection of interview parties were crucial factors to find the PD collection and hence appropriate criteria identified as: listing out of applicable stakeholders; their capacity; experience; and their number of participants to treat; and accepted as representing industry as whole by them.

### **3.4 Analysis of data collection**

Data analysis is started upon completion of Secondary and Primary Data collection. Abstract in Casterle, Gastmans, Bryon and Denier (2011) highlighted that analysis of qualitative data process, the researchers would pitfall on the trustworthiness of the research findings. Hunter, Lusardi, Zucker, Jacelon, and Chandler (2002) also emphasized to follow useful instructions or guidelines on how to analyze the mass of qualitative data. Jennings (2007) stated that most of researchers relying on qualitative software packages to analyze the facts by coding the data and entering the codes into qualitative software packages. Sandelowski (1995) argued that software cannot decide how to segment data or what codes to attached to these segments, nor what data means. Hence, Casterle et al. proposed his conclusion that qualitative analysis to do with peopleware and not software as researcher’s skills would thinking, imagining, conceiving, conceptualizing, connecting and creating are continuously able to find meaning beyond the facts.

Analysis and synthesis on data both the Primary and Secondary would be considered for final outcome.

### **3.5 Ethical pitfalls**

Silverman (2008) suggested to recognize the pitfall that would confront during research and be aware with key guidelines and recognize the limits of them. Hack (1997) said that researcher to concentrate the effect of the action if it quite damaging on the report. Therefore, Blaxter et al. (2003) confirmed that conduct of research ethically should be a goal of researcher (p.158). Almost all the advices are from professionals and always obtained consent about their reference.

Flick (2012) suggested that qualitative research is to maintain a validity and reliability as a criterion for the assessing of the outcome (Part 7, Sec.28). Kirk and Miller (as cited by same Author) discussed three forms of reliability i.e. quixotic reliability (author rejected); diachronic reliability (stability of measurements or observation); synchronic reliability (consistency). Flick further stated that validity is more essential than reliability and to avoid under three circumstance: (1) to see a relation, a principle, and so on where they are not correct; (2) to reject them when they are indeed correct; (3) to ask the wrong question. Therefore, these things are treated as most essential advice during the research conduct.

### **3.6 Chapter summary**

This Chapter was focused to highlight that how research methodology was planned. It categorized under applied research identified that research was in qualitative approach and depend on Primary Data and Secondary source data collection.

Secondary source data would be collect through Literature Review and desk top application has been selected to trace out existing researches' findings. The Primary Data collection through interviews and finally analytical assessment would be conducted for conclusion.

## **CHAPTER FOUR**

### **DATA COLLECTION AND ANALYSIS**

#### **4.1 Introduction**

Analyzing of facts of the issue was the main part of this Chapter. Hart (2008) explained “analysis means systematically breaking down something into its constituent part without random dissection to do a methodical examination and instructed complete a research by synthesis application which is that act of making connections between the parts identified in analysis (p.110)”. Accordingly, structure of this Chapter flowing in following specific manner in the Figure 4.1, subject to the complying of third objective set out in Chapter 1.

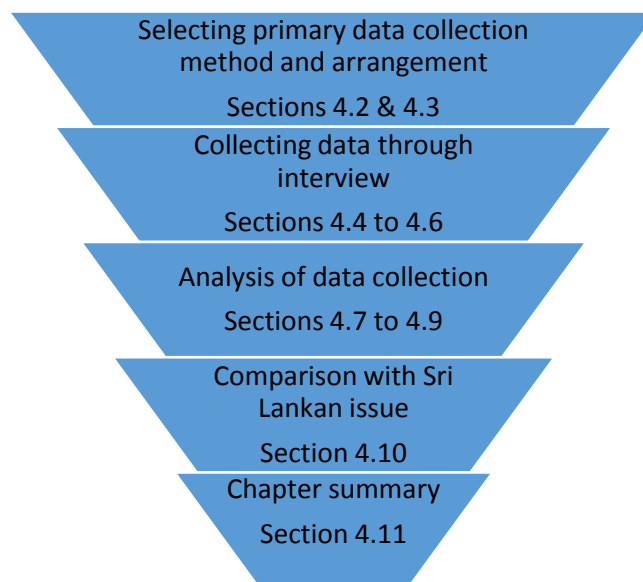


Figure 4.1: Flow chart of Primary Data Collection and analysis

#### **4.2 Selecting Primary Data and arrangement**

There are many approaches to collect Primary Data and Blaxter et al. (2006) stated that the interview method involves questioning or discussing issues with people and useful technique for collecting data rather than observation or questionnaires techniques. Hence, selected mode of data collection is the interview method which enables to collect firsthand information relating to the issue.

#### 4.2.1 How interview parties and quantum were selected?

The Construction Industry Working Group on Payment [CIWGP] (2007) expressed that “problems in payment at the higher end of the hierarchy will lead to a serious knock-on cash flow problem down the chain of contract”. Therefore, identifying applicable parties and numbers are important factor on findings. Hunter et al. (2002) underscores the importance of viewing data from several perspectives which would facilitate multidimensional thinking and offer different ways of making meaning of the interview data. Senavirathna (2015) confirmed that parties who are in construction industry termed ‘Stakeholders’ and are mainly divided into Primary and Secondary category. When Primary Stakeholders’ payment disputes are concerned there are two parties can be identified one with **victim** of dispute party and other would be **cause** of action party according to their behavior of the dispute.

Brand and Davenport (2010) and Commonwealth Government report (2002) explained that construction payments are in a cascade pattern which can easily identify the both parties’ level of effect as per Figure 4.2.

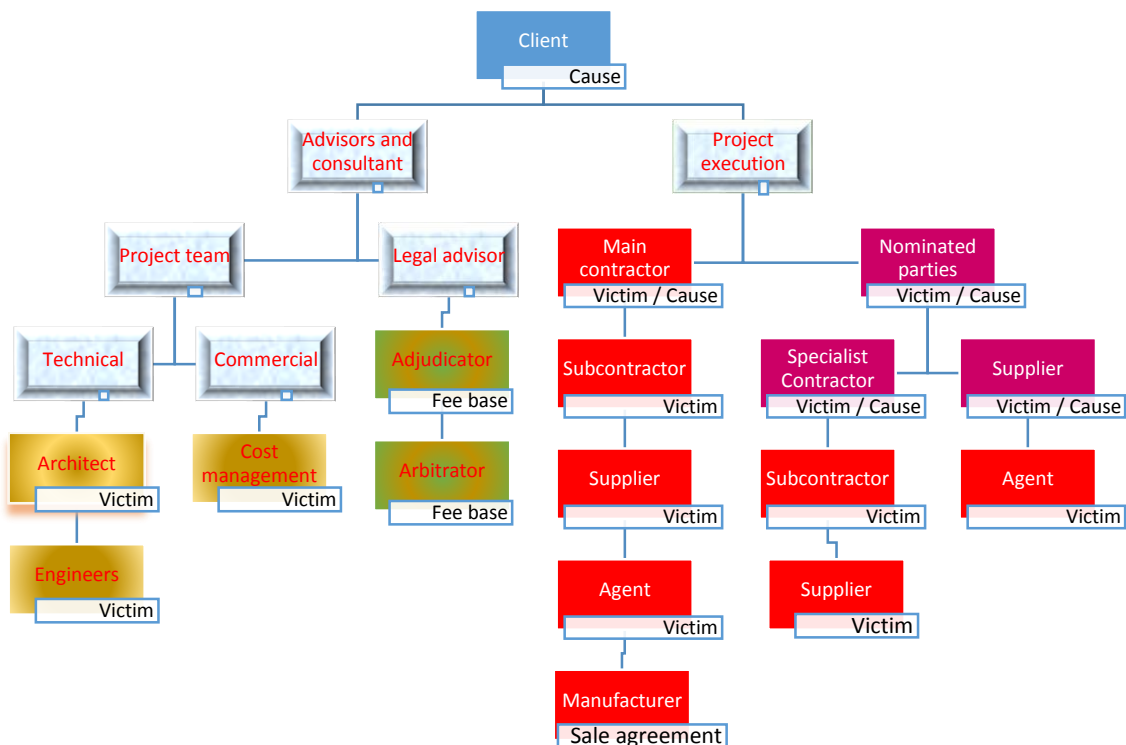


Figure 4.2: Cascade Payment pattern in construction project vs stakeholders’ characters

The Figure 4.2 consists of the Re-measurement contract in Traditional Path's cascade payment pattern and multidisciplinary colours apply to identify the different flow of payment and their effects in the disputes. The colours are stand for: Blue – cause of main dispute party in payment; Red – Supply Chain Management Parties (project execution); Green – Supply Chain Management Parties (project design); Amble – Neutral Third Parties (specialists on particular area). The status of victim and cause are labeled to the stakeholders.

Parties who are involved in the process of payment in construction may have an influence on the supply chain of payment in whole (Rahaman et al., 2009). Hence individual combination has been examined below.

- **Blue and Red flow:**

This represents the project execution parties who are in Supply Chain process. There are two combinations here as (a) Client/ Main contractor/ Domestic parties and (b) Client/ Main Contractor/ Nominated parties and their subordinators.

Ren et al. (2008) expressed that client is the one of key causes of delay to the industry and described that client's irregular payment to the main contract would effect to his cash flow and possibility of barking of payment flow to subcontractors, suppliers and others who are below him. Hence, progress of project defends on main contractor's ability to bare the expenditure and failing that project would face delays.

In first combination which is (a) has two categories. The first category in (a) is that if client does not pay to main contractor all the parties below to a client would suffer and in this situation client is a cause of action and all others become victims.

The second category in the first combination (a) is that main contractor would be paid but not pass it to dependent subordinators. In this situation main contractor becomes a cause of action and bellowers are becoming victims.

Unfortunately, the law concepts do not favour to the victims to create a direct contractual relationship with a client on none payment done by the main contractor. This is one of the main dispute area in the construction payment process.

Hence, main contractor plays two role as well as create two layers within the cascade payment i.e. client – main contractor and main contractor – domestic parties in terms of payment process under the combination (a).

The second combination (b) consists of main contractor with the nominated parties appointed by the client and payment would be through a main contractor. Any unpaid situation to nominated parties the client can settle the dues as per contractual rights. Therefore, they become less risky but subordinators who are below them would suffer. Again, this will be the main disputes area.

It is now obvious that flow of payment can be breakable at any point of combination and parties who has direct contractual link with client can manage their rights and influence to settle their payment dispute and able to secure or reserve their entitlement(s) but others are in vise versa. As an example according to the Figure 4.2 above the first layer in the cascade payment structure is between client and main contractor. The second layer would start from main contractor and down the parties. According to the both layers the main contractor only able to maintain a direct contractual relationship with the client and others lost that opportunity.

Hence, parties who are below the second layer would be on high risk on receiving payment. Even second layer parties would receive payment from client but might not flow out below to him. In that situation third layers have no rights to contact a client directly and make a complaint on non-payment legally as no linkage as per the law concept of '*privity of contract*'. The parties who are not having direct contract with client may suffer in the payment and to be depended on line pay master. Therefore, it is understood that the parties who are in far lower in cascade payment structure are the most victimizing parties on dispute.

- **Blue and Gold flow:**

This represents the designers' contribution to the project and the situation is not complicated as above. Most of services are under direct service agreement by the respective parties with the client and any dispute in payment would be very less.

- **Blue and Green flow:**

Once disputes arise the mechanism is to obtain the legal expert services. Hence, their payment status very stronger than any other system above. Hence payment disputes are nominal counts compare to the others who are in above.

- **Selections**

According to the identified categories as per cascade payment pattern the selected interview parties are listed in following table. The reasonable numbers of selected parties were depend on behavior of the payment flow which is victims, cause of action and other categories who are in the Figure 4.2.

The selected categories have further subdivisions and planned to interview minimum three parties from each subcategories which would be treated as view of whole industry. Accordingly, main victim parties are as follows.

The supplier's category includes different application which can be seen as Raw materials; Artificial materials; Fabricated materials; Finishes materials and Equipment/Plants in the different time in the progress of any project. Hence, twenty (20) parties are selected.

The subcontractors are also many further subcategories and mainly labour supply only; civil works; specialist structural works; Mechanical and Electrical (M&E) works; and Landscaping works and the like and twenty (20) are planned.

The equipment suppliers are many in scaffolding; tool and machines categories and five (5) are selected.



The main contractors are selected according to the project value categorization as per the Standard Bidding Document (SBD) standardization and ten (10) are listed.

All other applicable parties by five (5) as common.

The selection of parties and quantities can be identified in the following Table 4.1.

Table – 4.1: The selected Stakeholders and number of participation

| Item | Parties                   | Activity relates to the payment dispute  | Category |      | Interview Qty. |
|------|---------------------------|--|----------|------|----------------|
| 1    | Suppliers                 | Materials supply as domestic supplier  | V        | SCMP | 20             |
| 2    | Subcontractors            | Partial work done under the main contract as domestic subcontractor            | V        | SCMP | 20             |
| 3    | Equipment rentals firms   | Renting out equipment and machineries  | V        | SCMP | 5              |
| 4    | Main contractors          | Responsible for entire project and direct contractual relationship with client | V/C      | SCMP | 10             |
| 5    | Professionals             | Who conduct design and administrative part of the contract                     | C        | PDP  | 5              |
| 6    | Professionals             | Who participate on legal aspect  | N        | NTP  | 5              |
| 7    | Professional institutions | Who act as Adjudicator   | N        | NTP  | 5              |
| 8    | Professional institutions | Who regulate the legislative role  | N        | NTP  | 1              |
| 9    | Client                    | Represent in Private & Public category   | C        | PDP  | 2              |
|      |                           | Total participation  |          |      | 73             |

V = Victim; C = Cause; N = Neutral third party

PDP = Project Demanding Party; SCMP = Supply Chain Management Party

NTP = Neutral Third Party

As per the Table 4.1, victim parties on payment disputes would be the main area to consider the interviews and significant more numbers are allocated in order to identify the issue which relevant to the research fairly.

The same data in Table 4.1 has further visualized in pie chart in Figure 4.3 which enable to review overall and individual weightage of the interview process.

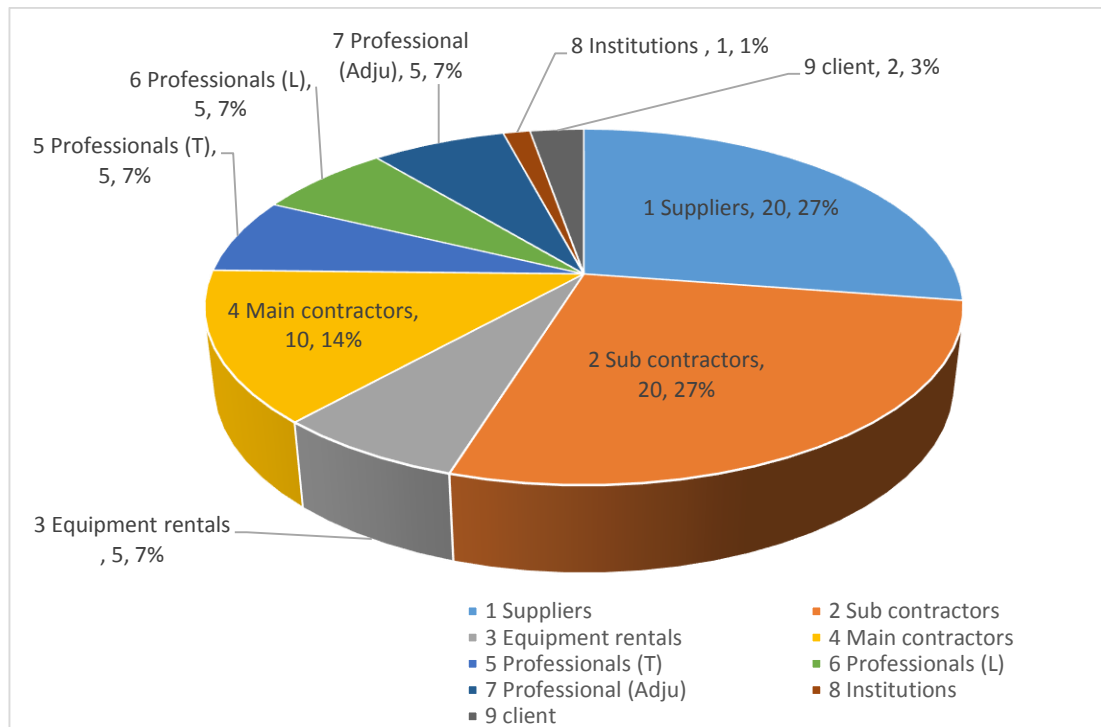


Figure 4.3: Selected stakeholders' distribution against industry

According to the pie chart above, the issue's suffering parties are representing more than seventy five percentage (75%) which comprises of:

- 27% each for Suppliers and Subcontractors,
- 7% as rental equipment and
- 14% for main contractors

Only a main trouble maker of the dispute becomes less than 3% and balance 22% which represents a team of professionals who have contributed to project administration and other specialist services. Accordingly, selection is assumed as fair and reasonable quantities with their categories for this research.

#### 4.2.2 Mode of interview

Having selected interview parties and their numbers the mode of interview has been established as per following Table 4.2.

Table – 4.2: Selected mode of interviews

| Item | Parties                   | Interview type               |
|------|---------------------------|------------------------------|
| 1    | Suppliers                 | By telephone                 |
| 2    | Subcontractors            | By telephone                 |
| 3    | Equipment rentals         | By telephone/meet personally |
| 4    | Main contractors          | By telephone/meet personally |
| 5    | Professionals (Technical) | One to one discussion        |
| 6    | Professionals (Legal)     | One to one discussion        |
| 7    | Institutions              | One to one discussion        |
| 8    | Professional institutions | One to one discussion        |
| 9    | client                    | One to one discussion        |

The technique of selection of sampling was ‘purposive sampling’ and parties who are in item 1 to 4 in Table 4.2 above were obtained from one of prominent contractor’s procurement department who serve the total value of contract sum in Sri Lanka Rupees 2.0 Billion approx. in three projects to the one client between year 2014 to 2016 and confirmed that 85 nos of suppliers and subcontractors were participants in this particular time for those three projects. Their procurement officer confirmed that more than trillion of value of projects are currently under their control in the entire local construction industry by providing service as Contractor and Consultancy in different projects. At the same time most of parties who are in the list would repeated their service in other projects. Therefore, interview by telephone was the arrangement.

The rest of parties were based on many contacts through either by personal information or from internet web site. Most of their interviews were carried out with one to one meetings in order to obtain advice and guidance to find a solution.

The following sections highlight the facts on issue from individual parties’ interviews.

### **4.3 Client perception**

Cartlidge (2009) said construction demand derived from Private and Public sectors. One interview from each sector has been carried out according to the selection established in the Table 4.2 above.

First question to both parties was ‘how do you pay for the service provider in your construction project?’ The simple answer was according to the contractual terms establish in particular contract.

Above statement i.e. contractual terms in the sense has been checked against the form of agreement contains in the ICTAD/SBD/02 (2014) and prescribed as:

the Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price at the times and in the manner prescribed by the Contract.

The contractual terms confirmed that contractor needs to perform works first and claim it subsequently as per the contract. In the same way, a client always prefers an optimum cost to the project and aiming to achieve by supporting the contractors’ cash flow through advance or/and interim payment in order to minimize a borrowing money on execution of the works by a contractor. If the contractor is deprived of the respective payment from client a payment dispute arises and flow of payment in cascade structure would also collapse including entire parties downwards to a main contractor.

The next question with interviewees was that in order to avoid payment dispute the provision provides in the Conditions of Contract to disclose the Employer’s financial status to the contractor. For an example, pursuant to the clause 2.4 [Employer’s financial arrangement] of FIDIC Red book (1999) which stated that:

The Employer shall submit, within 28 days after receiving any request from the arrangements Contractor, reasonable evidence that financial arrangements have been made and are being maintained which will enable the Employer to pay the Contract Price (as estimated at that time) in accordance with Clause 14 [Contract Price and Payment]. If the Employer intends to make any material change to his financial arrangements the Employer shall give notice to the Contractor with detailed particulars.

Though contractually a contractor reserves the right to question it, interviewees confirmed that never ever the employer disclose about difficulties on cash flow arrangement. Therefore, it reveals that the client would move towards in a cause of payment dispute in the cascade payment structure. However, in future this situation would be more relieving to the public client due to the newly enacted Right to Information (RTI) Act No. 12 of 2016 in Sri Lanka.

During one to one interview, a question was that ‘how can you act as the Engineer to the Contract with the assistance of standard forms of contract?’

The following quick answers were received and the respondents were reluctant to explain in detail.

- One answer was that lack of thinking about the gravity of legal aspect.
- In order to save the consultant’s fee if appointed
- Industry practice
- Most of Contractors acknowledge the fact that the client leads the industry

There were further few more questions raised during the interview and significant matters are summarized in following Table 4.3.

Table – 4.3: Response to interview questions

| No. | Question  | Outcome  |
|-----|---|--|
| 1   | Status of payment disputes & method of solution                               | Confirmed regular in every project. Clients prefer to obtain advice from professionals (technical & legal)   |
| 2   | Even having formed proper contract, how does payment can be in dispute?       | Parties are reluctant to follow the contractual and administrative procedure at the initial stage of construction properly. When payments are due at later stage, it would stuck due to lack of records and contractor has no room to reproduce past records.                |
| 3   | Who are the disputing parties and action on it?                               | Consultants – Insignificant occasion<br><br>Contractors (main) – Many reasons to occur (payments, claim, challenging contract provisions)<br><br>Subcontractors & suppliers (domestic to main contractor) – Never entertain and left it to main contractors' hand to resolve |
| 4   | View on SOP concept   | Not familiar, however at glance understood as additional burden. Few reasons are: <ul style="list-style-type: none"> <li>• Committed to pay</li> <li>• Additional expenditure to appoint adjudicator from initial stage</li> </ul>   |
| 5   | Are design advisors capable to advice for proper solution on payment dispute? | Both the parties confirmed that their advice as useful to find a solution on payment dispute.  |

It proved that the client himself is not a cause of action and other parties' requirements are to be discussed in order to establish a solution.

#### 4.4 Professional Advisors' perception

Having conducted the clients' interviews the next approach focuses on selected professionals who are involved in project team as per item 5 in the Table 4.2 above. One of the interviewees (Chartered Architect) confirmed that the payment for their service in a project is a fee basis according to the particular service agreement with client. The very common contractual link has been made according to their view in Figure 4.4 as follows.

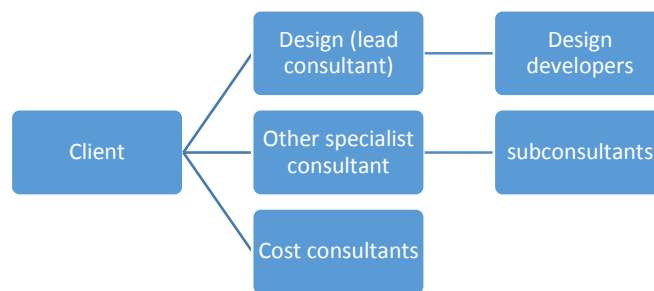


Figure 4.4: Contractual link on professional service with the client

According to the Figure 4.4, majority of professionals have direct contractual relationship with client based on their service agreement. One of interviewee as the Chartered Architect confirmed that their appointment to a project would be at very early stage (inception) and the role of service having high moral ground with a client party as designers' role to provide advice and control of the project throughout from inception to close out of a project. Hence, client would depend on their involvement and fee for the professional service has less disputes.

The second interviewee revealed that currently fee for the professional service would be 4 to 6 per cent (max.) based on construction project cost as per their professional institution fee structure. Even 60 per cent of fee would be obtained once the tender documents are placed on tendering with tenderers. Accordingly, only 40 per cent remains for post contract stage and that also based on head count application in any project.

Considering all factors above, it proves that design consultant has influential capacity in terms of their payment and chances of arising payment disputes could be ignored category. Therefore, payment disputes relating to the professional was not necessary to analyze in this report. However, interviews with the professionals were left out to discuss by the advisory category on contractors' payment disputes.

#### 4.5 Supply Chain Management parties' perception

Third stage was to arrange interviews with project execution parties who are named as Supply Chain Management (SCM) parties. CEM paper 1902V1-0 (2009) stated that:

SCM is the management and co-ordination of the whole supply chain from the supply of raw materials through their procurement, transport, manufacturing, assembly, delivery to site and installation to completion, commissioning and handing over to the customer on time, within budget and to the quality that is expected (p.3).

Cartlidge (2009) defined that SCM is comprised of the network of organisations involved (as per Figure 4.5) in the different processes and activities which produce the materials, components and services that come together to design, procure and deliver a building.

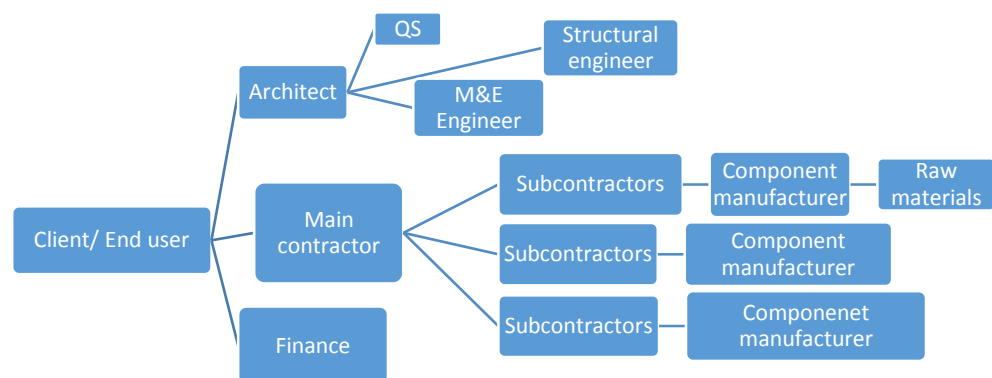


Figure 4.5: Typical construction supply chain

(Sources: <http://onlinecivil.blogspot.com>, p.5)



According to above definition their contractual linkage is so complexity and complicated as shown in Figure 4.6 below.

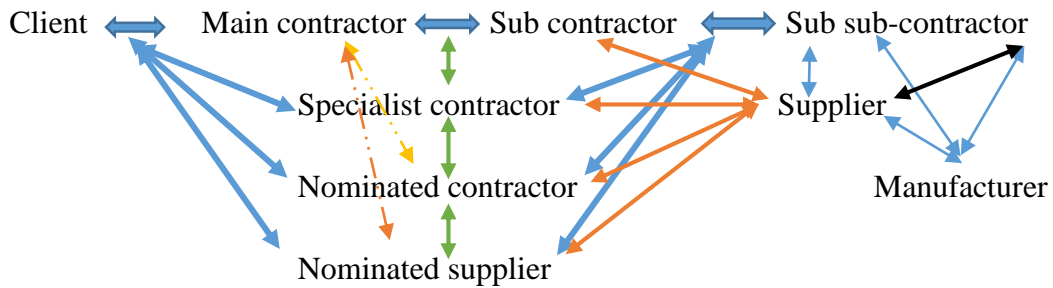


Figure 4.6: Project SCM parties' contractual link

Subsequently, individual interviews were carried out to avoid complexity of contractual link as per Figure 4.6.

#### 4.5.1 Interview with Suppliers

The intention of this selected party's interview is to identify the status on payment dispute and obtain their view to find a potential solution. The mode of interviews with the suppliers was through telephone conversation. The opportunity received to interview with fifteen (15) out of twenty (20) as planned and responding by 75 per cent against as planned.

Interviews confirmed that risk on suppliers' payment varies against progress of works and the following Figure 4.7 enables to understand that the clients' ability has declined on payment for suppliers' goods over the progress.

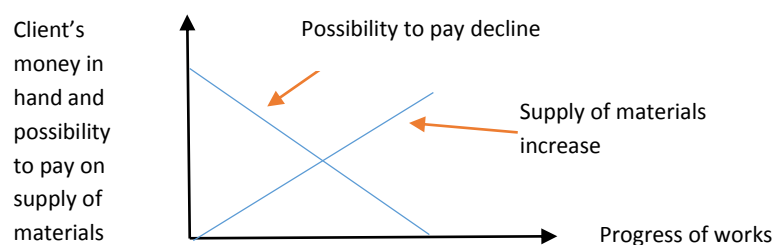


Figure 4.7: Payment trend on supply of materials against progress of works

According to the above diagram the suppliers who are in early stage in the project might be in less risk on payment and last stage of the project are in higher risk on non-payment for supply of materials. Therefore, different categories are selected to interview from project in start, middle and end point activities to cover-up the majority of categories.

The process of interviews are structured in following steps.

- Identify Stakeholders who are ordering materials
- Select types of materials which need to address
- List out type of supply under the minor, medium and regular category
- Consider their payment effects

The interviewees' response are summarized in Table 4.4 in order to identify the industry's situation against payment dispute.

Table – 4.4: Suppliers' payment status against construction parties

| Category   | Parties interviewed | Status        | Sub-contractor | Specialist contractor | Main contractor | Direct client |
|--|---------------------|---------------|----------------|-----------------------|-----------------|---------------|
| Raw materials: soil; sand; metal                   | 3                   | Supply        | Regular        | Rear                  | Regular         | Normal        |
|  |                     | Payment delay | U              | -                     | U               | S             |
| Artificial materials: cement; steel; reinforcement | 3                   | Supply        | Regular        | Minor                 | Regular         | Regular       |
|  |                     | Payment delay | U              | -                     | D               | S             |
| Steel Structures, Alumium works                    | 3                   | Supply        | Regular        | Regular               | Normal          | Less          |
|  |                     | Payment delay | D              | D                     | U               | C             |
| Finishes: tiles; paints, ceiling panels            | 3                   | Supply        | Regular        | Minor                 | Regular         | Regular       |
|  |                     | Payment delay | D              | -                     | D               | C             |
| Services equipment/plant                           | 3                   | Supply        | Medium         | Regular               | Regular         | Less          |
|  |                     | Payment delay | S              | D                     | D               | C             |
| Effect on payment                                  |                     |               | 2D,2U,1S       | 2D,3´-´               | 3D, 2U          | 3C, 2S        |
| Rank according to the payment delay                |                     |               | 2              | 3                     | 1               | 4             |
| Source: Summarizing of Primary Data collection     |                     |               |                |                       |                 |               |

D = Drastically; U = Usually; S = Seldom; C = By Cash; '-' mark = No effect.

The formula for payment delay assessment is:  $D > U > S > C > '-'$

According to the Table 4.4, materials are requested by four categories. The assessment is for payment delay against them and response is categorized against formula given above. Where the more effect on 'D' category gets the higher ranks and low ranks as per less numbers. While review on assessment, the ranking 1 on payment delay goes to the main contractor and so on.

The Suppliers confirmed one of questions that their business have inbuilt practice by supplying the materials with a credit basis based on business trust. Traditionally in 30 days, 45 days and 60 days period are in the practice. This behavior has been tested in contractual ground basis considering by main contractor and supplier combination. The meaning of credit basis is that allowing reasonable time period to pay back for supplied components.

McCaffery (2011) mentioned that in construction the main contractor's positive cash flow depends on executed works which need certain times to receive money. For an example FIDIC Red Book or ICTAD/SBD/02 Conditions of Contracts would allow 56 days to receive payment from submission date of interim payment application. Therefore, any suppliers' credit period longer than 56 days, the main contractor's cash flow receive betterment and parties enable to maintain long term business.

Unlikely, suppliers confirmed that they are suffering to receive a payment beyond the credit period even particular payment to main contractor by a client. The main reason was that main contractor would utilize it for their short term cash flow management and suppliers are unable control that behavior as they wish due to the market competition. For an example, if one party (supplier) demands good payment terms in a contract a main contractor would approach others to supply that who are waiting for opportunity to create a business deal without bargaining any provision(s). Due to this competition, they comply a main contractor's conditions as it was with a lower profit margin and heavily depend on forecasted cash flow to come. The failing of cash flow they are unable to sustain in the business entity.

According to the above explanation following things are appeared on evaluation:

- ✓ Suppliers who are participating in the project at the end stage face severe payment delays than early stage material suppliers.
- ✓ The main payment delays are with regular customers.
- ✓ Even payments are delay with regular party, suppliers are willing to continue their business awakening with risk of late payment.

The last question with them was ‘any solution to overcome this situation according to their long term business experience, the answer was no’. Only common reply was many debt in their accounts in the year end business report and chasing to recover the balance debt. The interviewer proposed a solution as SOP mechanism and suppliers are very keen to understand the process of SOP concept and appreciate if the mechanism would introduce in local construction industry, they would secure their business in long term approach.

#### **4.5.2 Interview with Subcontractors**

The next category to interview from SCM parties were domestic subcontractors who are participating in project execution under a main contractor. Subcontractors’ business with main contractor was discussed by Hughes, Gray and Murdoch (1994) and identified that “subcontractors are inevitably subservient to the financial, contractual and procedural systems imposed upon them by main contractors and may attempt to protect their own interests by transferring risk to their subcontractors”.

There are many further subcategories of subcontractors. In order to understand the market behavior the interview were able to conduct with 17 numbers out of 20 as scheduled which represent 85 per cent response through the telephone interviews. The pre-planned questions were raised and their response are scheduled in Table – 4.5.

Table – 4.5: Subcontractor's response on payment dispute

| Category   | Qty. | Status        | Main-contractor | Specialist-contractor | Direct client | Remarks   |
|--|------|---------------|-----------------|-----------------------|---------------|---|
| Labour supply for masonry, bar bending and carpentry works | 2    | Works to      | Mostly          | rarely                | Normal        | It was proved that large content of the works are with main contractor even their payment get delayed |
|  |      | Payment delay | Drastically     | Usual                 | Seldom        |   |
| Partial civil works  | 3    | Works to      | Mostly          | rarely                | Regular       |   |
|  |      | Payment delay | Drastically     | rarely                | Seldom        |   |
| Aluminium works and Steel Structures                       | 3    | Works to      | Mostly          | Normal                | Less          |   |
|  |      | Payment delay | Drastically     | Usual                 | By cash       |   |
| M&E Services - Elec  | 4    | Works to      | Regular         | Mostly                | Regular       |   |
|  |      | Payment delay | Drastically     | Drastically           | By cash       |   |
| M&E Services - Plumb                                       | 3    | Works to      | Mostly          | Regular               | Regular       |   |
|  |      | Payment delay | Drastically     | Drastically           | By cash       |   |
| Landscaping work   | 2    | Works to      | Mostly          | Regular               | Less          |   |
|  |      | Payment delay | Drastically     | Drastically           | By cash       |   |
| Rank   |      |               | 1               | 2                     | 3             | More 'D' high risk (1);<br>Less 'D' medium risk (2);<br>No 'D' less risk (3)                          |

Source: summarizing of Primary Data collection

Interviewees confirmed that their major involvements are with main contractors irrespective of sub-categories. Having their entire controlled hand with main contractor, their business depends on less profit oriented and rely on cash flow forecast in the long run basis. The result indicated in Table 4.5 that sub-contractors' payment delay is by main contract as rank 1, Specialist contractor become rank 2 and direct client is rank 3. Therefore, it indicated that proper solution is essential for subcontractors' cash flow system.

According to the outcome of interviews, many disputes are related to the interim payments and secondly on release of last portion of retention. As an example for interim payment dispute, one interviewee confirmed that one of his project, a main

contractor had mismanagement of project and paid main contractor's staff salaries utilized his due interim payments. He further confirmed that some cases the main contractor provided materials to proceed future works instead of payment which he was entitled. With that he had further suffered all the trade discount which he expected from direct purchasing of materials.

Another fact from the interviews that last portion of retention money (basically 2.5% to 5% for labour supply and others) are difficult to receive from main contractors with various excuses.

The SOP mechanism was discussed and they are unaware about such a solution. However, during the interview the subcontractors are very keen to understand the process of SOP concept and appreciate if the mechanism would introduce in local construction market in favour of them.

#### 4.5.3 Interview with equipment rental parties

The equipment rental parties are to be accounted as participant to the construction industry. With their less important few parties are selected for the interview and outcome is shown in Table 4.6.

Table – 4.6: Equipment rental parties' response on payment dispute

| Category           | Qty. | Status        | Main-con    | Spec-con | Direct client | Remarks   |
|--------------------|------|---------------|-------------|----------|---------------|---|
| Scaffolding        | 1    | Supply to     | Mostly      | Rarely   | Normal        | Even agreement exist there is lengthy rental period in main contract        |
|                    |      | Payment delay | Drastically | Usual    | Seldom        |   |
| Tools              | 1    | Supply to     | Less        | Rarely   | Mostly        |   |
|                    |      | Payment delay | Seldom      | Rarely   | Seldom        |   |
| Machine/ Equipment | 1    | Supply to     | Mostly      | Normal   | Less          | Ditto   |
|                    |      | Payment delay | Drastically | Usual    | By cash       |   |
| Rank               |      |               | 1           | 2        | 3             | More 'D' high risk (1);<br>Less 'D' medium risk(2);<br>No 'D' less risk (3) |

The evaluation proves that equipment rental parties have business mostly with main contractors and a risk in payment delay is appeared as Rank 1. There is an inability to control the business even when the agreement covers all the provision to avoid delay of payment.

This party also unaware about the SOP practice by other countries and appreciate if possible to introduce in the local construction industry.

#### 4.5.4 Interview with the main contractors

Prior to the interview with this parties, understanding of their capacities on the construction process and contractual status against his subordinators are evaluated in order to conduct the interviews properly to find out necessary facts on the selected issue. Looking at widely used construction contracts the most of terms are prescribed in the standard General Conditions of Contract (GCOC) to any particular society. For an example the FIDIC Red Book (1999) which has been widely used in many construction society as well as guided on ICTAD/SBD has been selected to identify the status on main contractor's role and listed it out in Table 4.7.

Table – 4.7: Contractor's role on subordinators

| Clause | Provision                        | Remarks   |
|--------|----------------------------------|---|
| 2.1    | Right of Access to the Site      | The contractor's possession on site become overall in-charge party to perform the obligation given under the clause 4.1.  |
| 4.1    | Contractor's General Obligations | Among the obligations main things are design (if request) execute & complete the work including remedy any defects in the works by adequacy, stability & safety of all site operations and all methods of construction.<br>Therefore, following clauses are interrelated together with this clause. |
| 4.4    | Subcontractors                   | The main contractor can subcontract portion of works and responsible for act or default of them including his agent or employees. Any subcontractors other than named in the contract needs consent from the Engineer.  |

Table – 4.7: Contractor's role on subordinators (Cont'd)

| Clause | Provision                       | Remarks  |
|--------|---------------------------------|--|
| 5      | Nominated subcontractors        | This party would appoint by the employer and clause 5.3 says payment to subcontractors and in order make sure payment are made the clause 5.4 provides to proof document by the main contractor. |
| 7      | Plant, material and workmanship | All of these resources are to be arranged and controlled of main contractor and responsible for including subcontractor's involvement.   |

Source: FIDIC Red Book 1999

Having read the Table 4.7 above the main contractor does dual role to any project in terms of holding different responsibilities given in contract and those are basically:

- responsible to the client for execution of entire project
- authority to control the parties who are behind him in order to manage their contribution to complete main project

This can be illustrated further in following Figure 4.8.

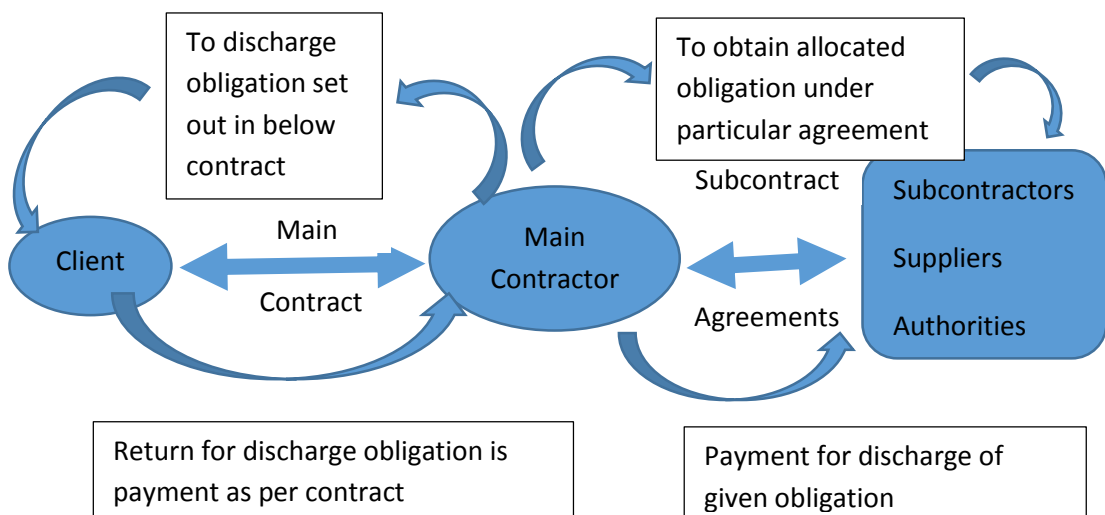


Figure 4.8: Main Contractor's dual role on a project



The Figure 4.8 above illustrated that in any project a payment matter with the main contractor has two fold.

- **Left side of Figure 4.8**

According to the left side of the Figure 4.8 the main contractor has to depend on payment from the client for his role (discharge of obligation as per contract). The payment dispute arise once payment delay or non-payment situation to the main contractor. A solution or avoid such a situation is provided in construction contracts and for an example,

- delay of payment: if there is a payment delay, pursuant to clause 14.6 of ICTAD/SBD/02 allow to claim interest for delay of payment
- non-payment: in this situation the contractor entitle to go for the dispute resolution process pursuant to clause 19.3 of ICTAD/SBD/02

But neither of application does not answer proper solution for contractor's cash flow as planned. Therefore, these are the areas that in payment disputes exist.

- **Right side of Figure 4.8**

Here, main contractor has the upper hand in payment for his subordinators. The main contract is silent on domestic subcontractors' treatment by the main contractor. Hence, he can act as client to them and payment handling has sole authority with a main contractor and therefore, these will be another area of payment disputes.

After review the both sides of Figure 4.8, the interview was carried out to identify the client's effect on main contractor first. The six parties out of ten had been interviewed under the three categories of types of clients based on ICTAD/SBD classification and each party includes with further two categories of contractors i.e. main contractor and nominated contractor. The pre-planned questions were raised for payment delay reason and cause for delay which summarized in Table 4.8 below.

Table – 4.8: The clients' effect on contractor's contribution

| Event                                  | Contract over Rs. 100 m,<br>based on SBD/02 |                      | Contract between Rs.<br>100 m and Rs. 10m,<br>based on SBD/01 |                      | Contract less than Rs. 10m,<br>based on SBD/03 |                               |
|--|---|----------------------|---|----------------------|--|-------------------------------|
| Category                               | Main Contractor                             | Nominated Contractor | Main Contractor   | Nominated Contractor | Main Contractor                                | Named contractor              |
| Type of works                          | Buildings and Infrastructure                | Electrical           | Buildings   | Lift                 | Buildings                                      | Plumbing                      |
| Qty.                                   | 1   | 1                    | 1   | 1                    | 1  | 1                             |
| Type of client                         | Public & Private                            | Mostly Private       | Public & Private  | Mostly Private       | Private  | Private                       |
| Payment delay by client                | Mostly in Public                            | Significant delay    | Common  | Common               | Yes, not manageable                            | Manageable                    |
| Cause of payment delay which effect on | Pending claim approval                      | Administrative issue | Pending variation approval                                    | Not significant      | Lack of contractual arrangement                | Due to main contractors claim |

The last row in Table 4.8 shows that the payment delay occurs due to the many reasons. Unfortunately, most of provisions are addressed in the contract through GCOC but process are getting delay.

The second part of the interview intends to find out main contractors effect to the subcontractors. In consideration with SCM parties' interview comments the structured questions were raised with main contractors and response is summarized in Table 4.9. Questions were relates to the suppliers, subcontractors and equipment rental parties and highlighted in three different colours.

Table – 4.9: Payment effects on SCM parties from main contractor

| Event                                 | Contract over Rs. 100 m, based on SBD/02 |                         | Contract between Rs. 100 m and Rs. 10m, based on SBD/01 |                      | Contract less than Rs. 10m, based on SBD/03 |                        |
|---------------------------------------|--|-------------------------|---|----------------------|---|------------------------|
| Category                              | Main Contractor                          | Nominated Contractor    | Main Contractor   | Nominated Contractor | Main Contractor                             | Named contractor       |
| Type of works                         | Buildings and Infrastructure             | Electrical              | Buildings   | Lift                 | Buildings                                   | Plumbing               |
| Qty.                                  | 1  | 1                       | 1   | 1                    | 1   | 1                      |
| Suppliers                             | All materials except concrete            | All goods and equipment | All materials   | Own product          | All materials                               | All materials          |
| Payment provision for suppliers       | 90 days credit                           | 90 days credit          | 60 days credit  | Not applicable       | 30 days                                     | 30 days                |
| Sub-contractors' involvement          | More than 90%                            | Nearly 20%              | More than 90%   | Nearly 5%            | Nearly 25%                                  | Rarely                 |
| Payment provision for sub-contractors | Pay when paid clause                     | Direct by client        | Pay when paid clause                                    | Direct by client     | Back to back provision                      | Back to back provision |
| Equipment rental parties              | Heavy machine and scaffolding            | Rarely                  | Scaffolding   | Mobile crane         | All kind of tools and machines              | Rarely                 |
| Payment provision for rental parties  | Rental agreement                         | Rental agreement        | Rental agreement  | Rental agreement     | Rental agreement                            | Rental agreement       |

Interviewees' responses enable to identify the different cause and effects related to the payment dispute and their combination has separated those differences and few are highlighted below. The main contractor is selected as main culprit and therefore, chosen for comparison.

- Between the client and main contractor – as per the answer to the questions in the interviews, the cause of action responsible by both parties under the contractual or project administrative matters. Few have explained that the local cultural affairs mainly influence to create an issue. Reason being that records are not maintained from the beginning of the project and unable to proves some facts when necessary.

- Between the main contractor and suppliers – the interview parties argued that suppliers' payment terms always need to include a credit period to facilitate the time requirement for converting on permanent works and claimed for the executed works.
- Between main contractor and domestic subcontractor – unlikely suppliers, the subcontractor also getting paid through a main contractor. The Conditions of Contract in the main contract allows certain time period for certification and payment and main contractor has to avoid the liability on subcontractor's dues until getting paid by him.
- Between main contractor and rental equipment parties – the main contractors' view was that hiring of rental has less effect of payment issues compared to others and cash flow is based on the rental agreement which has minor effect on the main contractor's budget.

All the interviewees confirmed that majority of supply chain management parties are dealt with main contractors. Therefore effect on payment delay or holding by main contractor would damage the cash flow below them. The contractors' knowledge on SOP concept is very less and they were not happy to introduce the concept as subordinators getting legal ground on payment challenging situation against the main contractor.

Interviewing of the victim parties are completed and unable to find a proper solution. Hence, parties who are in the process of construction has been selected and findings are illustrated hereafter.

#### **4.6 Professional parties' purview**

Interview outcomes with project execution parties are revealed all the cause of action on payment dispute but unable to retrieve proper solution on it. Next attempt has been selected to address the things with the Professionals who are contributing advisory process to complete the construction in various requirements. In order to conduct interviews the parties are segregated in the following manner.

- Design developers and contract administrator
- Legal advisors on dispute resolution
- Professional members who are in professional institutions
- Advisors on regulatory bodies i.e. policy makers and implementation institutions

Then multiple round of interviews were carried out and outcome is listed down now.

#### **4.6.1 Interview outcome with Design Developers/ Contract Administrator**

Hughes and Murdog (2008) pointed out that “... professionals is that they seek to serve the public first and foremost”. They (professionals) are prominent characters and important factor on successful project completion, settling issues in order to maintain sustainable industry in any society. Hence, obtaining their advice is worthwhile to find a solution for the selected issue. There are five interviews were conducted with them who contributing in Design Developing as well as Contract Administrator’s (CA) role. They are prominent characters in local construction industry having more than ten (10) years’ experience in the industry as well as holding the Charter ship in their profession.

The one common question was raised to professionals that ‘whether, projects suffer by payment disputes? Everybody confirmed that all projects have somewhat same situation. Their answers further added that most of main contractors’ and nominated contractors’ payment disputes were able to handle based on vested power in GCOC.

However, disputes pertaining to parties behind the main contractors were not in their attention until project is in slows progress due to particular dispute. The CAs’ unable to handle them due to the restriction on contractual link and therefore, timely action on relevant matter is beyond their control.

The preparation of subcontracts’ agreement is with the main contractor’s hand and strong party would formulate provision in their favour to the documents generally.

In this case CA further agrees that parties who are below to main contractor unable to seek strong legal action due to following reasons.

- No direct contractual link with client who suffer on a payment (after main contractor)
- Sub-contractors' scope of work could be very less value in terms of cost to address in legal action
- Cultural attitude inbuilt to the process - unlike to interfere against his immediate superior party at early stage and unable handle later
- Maintain maximum bare time on dispute and wait for fair treatment

Next question directed to CAs was that what would be the quantum of effective parties on payment disputes?

The interviewed first Chartered Architect confirmed that:

- In Sri Lankan situation the construction market consist of around 75% of informal contract (on small scale base building projects) and balance are only for formal contract in accordance to his experience.
- The value of projects concern the formal contracts are bigger but parties' involvement in the informal projects significantly higher than formal contract as per his explanation.

According to his comments, not only the subcontractors who are in formal contracts but the builders who carry out project as main contractor in small scale (informal contract) are also having payment uncertainty and requested to consider these categories too while finding viable solutions.

Having interviewed other selected professionals the following situations were identified relating to payment dispute where solution was vital.

- One of situations highlighted by interviewee with his experience that a client reluctant to appoint a CAs at the early stage to a project and the client himself handle a contract adopting a standard form of contract i.e. using ICTAD/SBD and act as Engineer to the contract. Main contractors also accept the process and many administration matters stipulated in a standard form of contract would be deviated, eg. informal variations orders. Though at the time of payment settlement, a client tends to dishonest the way of practice was in, and demanding to prove most of records relating to the payments especially on variations in order to release the payment. Unfortunately, contractors were not securing the rights and not maintain an appropriate records. In these circumstance, a blame is laden upon the contractor owing to his lack of management skills. The parties who are down below him also would suffer in bad cash flow situation where payments tend to delay further and further. The interviewees confirmed that their appointment by the client in this situation to settle the dispute.

This is the predicament that is visible in the normal practice i.e. contractors are maintaining soft approach but unable to continue because of project complexity and unable to prove the correct position to secure the rights when necessary.

- Another highlighted fact by them was that in the Sri Lankan context most of projects are procured through traditional paths in re-measurement contract basis and documents contain BOQ with approximate quantities for civil works and a provisional sum for Services and Specialist works. In the absence of an engineer to administrate a contract, a client would suggest the main contractor to appoint a suitable parties for provisional sum works and sub-contractors are not in a position to understand the contractual situation. There are lot of payment issues upon them and sub-contractors would suffer nonpayment scenarios heavily.

The final important question was directed to CAs about a SOP concept which is most of countries adopted to overcome the above situation of payment disputes. All interviewed parties were not aware of the concept and appreciate if such a mechanism would implement in order to strengthening the market and sustainability of industry.

#### **4.6.2 Interview with Legal Advisors**

With the outcome of contract administrators' interviewed, it was cleared that every payment disputes are not possible to control by them even existence of proper construction contracts. Upon failing on their approach the matter will automatically raise up to the legal approach. Therefore, construction disputes are before on courts in every society and legal advisors are pioneer in this process by settling disputes as decision makers. Therefore, legal advisors' consent would help to find out the proper solution on payment dispute and hence, consider their participation in this interview process.

Five numbers of legal advisors had been selected for interview who has more than ten years' experience in the construction dispute settlement. Eagly & Chaiken (1993) said that work experience of a person in the related subject is significant in obtaining reliable and accurate information on that particular subject.

The significant questions and answers are quoted in order to understand the facts of payment dispute under the primary data collection with the interviewees who as legal advisors and outcome recorded as follows.

Casterle, Gastmans, Bryon and Denier (2011) suggested key storylines method to write down the narrative interview report as it contribute to better insight in the research phenomenon.

- **Interview question:** At what stage that legal advisor involves to settle a payment dispute?



**Answer summarized:**

During the interview all of interviewees were agreed that current solution for the payment disputes comprising of both contract administration and legal path. However, legal advisors are lack of competent on contract administration procedures on site and only receive an opportunity to handle relevant issues comes after failing of contract administration and once forward it on legal action.

➤ **Interview question:** Comparison of current practices.

**Answer summarized:**

One of interviewee suggested that lawyers were not invited at the time of preparation of construction contract and situation would have been different if would so. He blamed that a client is not educated by contract administrative professionals to appoint a lawyer in this regard.

The validation of this statement was directed to the one of interviewee who practice in the industry as director of cost consultant organization and criticized with following grounds:

- ✓ The documents which are necessary to incorporated in tender/contract contains with multiple documents and majority are tested by legal draftsman including multiple application during decades. Therefore, with the help of those standard formats and documents the tender/bid process handle by technical professionals who are in contract administrative category and his personal view given that legal advisors' involvement is not important at the tendering stage.
- ✓ The society felt that lawyers' involvement means a disputes exists at the beginning of the project itself and scare to appoint at early.

Turner (2007) stated that contract is a bargaining power in both parties and has given freedom to create a contract. The lawyer would draft it properly, but still yet to fail because parties are not honour on what they have established in the contract during the progress of the works.

➤ **Interview question:** What are the common payment disputes in your experience?

**Answer summarized:**

With their experience the following cases are confirmed as their decision makers.

- Challenging the contractual terms – There are many areas refer to legal application in order to find the legal interpretation and settlement.
- Hold payment until final account settlement due to improper contract administrative approach – The contractors starts in soft approach at the beginning of project and rights are not securing with proper records. In this case contractor's lack of management skill suffers payment settlement and request for legal advice to settle a dispute.

➤ **Interview question:** Who are the regular parties that make complains on payment dispute?

**Answer summarized:**

They have confirmed that mostly the payment disputes complains are in the construction industry filed by main contractors and subcontractors are unable to approach this due to the high cost of a lawyers' fee when compare with the value of their works to the main contractor. In order to avoid this circumstance, the law needs to introduce common policy framework to the society so that financial difficult parties get relief accordingly.

➤ **Interview question:** If SOP concept introduce, does situation change?

**Answer summarized:**

Discussion was made with all the interviewees about the SOP concept. Majority of professionals have general understanding about fundamentals of the SOP concept.

All interviewees are agreed that SOP concept combined with the law of country in the particular industry to answer the payment issue. The current practice of SOP was initiated by UK construction industry with HGCRG Act 1996 and all interviewees agreed to consider the UK Act as base discussion.

The interviewer has labeled the UK's SOP Act in three tiers as follows and forwarded to the interviewees' comments.

- definition of appropriate terms (ss 104 to ss 107)
- vested adjudication power to control the SOP process (ss 108)
- coverage rules on security of payment (ss 109 to ss 117)

This categorization is accepted by all interviewees but reluctant to discuss in details discussion as interview conducted around 30 minutes time period during their business hours.

➤ **Interview question:** how far known the other countries' SOP application

**Answer summarized:**

All interviewees are acknowledged that many countries are adapted the SOP application to their construction industry to apply as payment solution. Specially, in Australia, New Zealand, Singapore and countries are contextualized the UK application to match their requirements but unable to discuss due to non-preparation.

➤ **Interview question:** current situation in Sri Lanka

**Answer summarized:**

All interviewed legal professionals confirmed that in construction industry in Sri Lanka is based on rational application and SOP concept which others practices is not exist in the process according to their knowledge.

With the available Secondary source data in literature review the interviewer put forward another question stating that ‘how far the newly enacted Construction Industry Development (CID) Act no. 33 of 2014 in Sri Lanka would facilitate the SOP concept?

Again, interviewees are aware on new development of industry but not familiar on it. The object of the CID Act is to regulate, register, formalize and standardize the development of the construction industry in Sri Lanka; establish relevant authority and advisory council on construction; scaling stakeholders and for the settlement of disputes related to construction activities; ... (CID Act, 2014).

Interviewer compares applicable area in the CID Act against SOP Act in other countries. The ending Clause 67 covers interpretation of important context which has same feature of first tier of SOP Act in the Australia. Comparison is shown to interviewees (refer Appendix B) and looking at that comparison at glance all of them agreed that most of definitions are compatible of SOP concept and happy to learn as good news in the process of SOP concept in Sri Lanka.

Again, interviewer pointed out that clause 50 to 52 in ‘Part IX – Settlement of Dispute’ of CID Act as preliminary attempt of legalization of Adjudication process in to the legislation. This clauses initiated the similarity of second tier of SOP concept which has been compared and enclosed in the Appendix C.

With this explanation all legal professional interviewees were on the agreement that clue of the SOP mechanism is already touched in Sri Lankan legislation under the CID Act no. 33 of 2014.

One of legal advisors who has a doctorate in 'Social affairs' commented that understanding of a business culture in the local construction industry is very important and unable to ignore their behavior at the time of introduction of SOP concept by law. Otherwise it would be only a just Act and business community might not be implemented.

The fifth interviewed legal advisor pointed out that barriers and difficulties on existing circumstances to introduce a SOP concept in Sri Lanka considering to the matter with the type of client. He said that the Government is the top investment party in the construction industry in Sri Lanka to lounge projects based on foreign investment. If client delay of the payment the SOP Act would in difficult situation to apply against client as the Government.

The point raised by the interviewer to him that any possibilities to apply a SOP concept only for private client and related project. He emphasized that law must not discriminate parties in the business world however, the SOP Act in Singapore starts with only based on the private clients' project assuring that government will not initiate projects without capital. Therefore, he has doubt that public clients in the local construction industry in Sri Lanka would act in the same manner.

The question was raised about other relevant legal principle availability to support the SOP concept if introduce. He pointed out about newly enacted of 'RTI Act 12 of 2016' as one better step to see a SOP concept in future.

The SOP concept totally depends on adjudicators' role and another question put forward to him to understand the current situation in the adjudication process in the Sri Lanka. His point of view is that extra milestone need to be established by academic and professional institution to create this profession more effectively.

Further, question was that if SOP concept is premature to introduce in the local market at present, the interviewer proposed something like an insurance scheme to

secure the Sub-contractors' and Suppliers' value portion as an alternative option. He has pointed out that what would be an insurance company's position to recover the paid amount, will it paid by ultimate client and where is the provision in the law to consider this application and further said that introduce a new legal requirement will be main difficulties and undermine the client's position before initiate project as category in non-payment client.

Session end question posed by interviewer about the United State of America and Canada's application of payment security matter. He has confirmed that non-awareness of whole idea but express that their concept is good according to the given information during the interview by the interviewer.

#### **4.6.3 Interview outcome with Policy implementation institution**

As planned, further interview session was conducted with the construction institution who has authority to introduce and implementing of policies related to the construction industry in Sri Lanka.

According to the first question which is existence of dispute in the construction industry, the answer given by him that majority of construction contracts having disputes and his institution has established separate division to cater the requirement.

The second question was that how far the disputes effect into the industry. He confirmed that the year end 2016 of the contractors' registration the main contractors were 25 per cent and 75 per cent are for subcontractors as per statistical records. He argues that there are more unregistered subcontractors in the market and figure might change to more than 75 per cent for subcontractors. As per Dispute Adjudication Board, in his institution the more effect on payment disputes are sensitive matter to the industry as majority are from subcontractors.

According to the next question the director agreed on interviewer's explanation on current industry practice on solution for payment issues – i.e. by way of application of contract administration and failing that approach to legal application. This statement was further confirms that receiving issues to their dispute resolution board, the majority numbers are from subcontractors who have failed to settle the payments through contract administration method.

He further revealed that in the local construction industry, there is no standard conditions of contracts for subcontractors' agreement where other countries used by decades. With this drawback most of times a main contractor is in high bargaining power to establish the subcontract agreement and no control over that by the subcontractor other than accepting their unfair terms like 'pay when paid' phrases.

The question was raised on SOP concept and the interviewee confirmed awareness of the concept and clearly commented that Sri Lanka is in good position to introduce a SOP concept in theoretical point of view but reluctant to confirm as best practice due to certain influential clients who has initiated majority of construction activities through foreign funds and investments. There are many payment disputes arise due to the delay of flow of sources of money as well as spending particular funds for other development too. Therefore, allegation against the client on payment dispute based on SOP concept is in a question on practical ground.

The question put forward on the newly enacted of the CID Act. Certain areas on Act is compared with SOP concept based on details in Appendix B&C and identified the similarity areas based on Australian SOP Act. He confirmed that if third tier of SOP concept would include injunction with CID Act the SOP concept can be introduced with contextualized module to Sri Lanka.

The Director has confirmed that with the vested power of his position, he has an authority to implement any kind of potential mechanism to upgrade the local construction industry with the consent of their board approval.

Then interviewer was keen to ask questions on alternative areas to introduce until implementation of SOP concept in future. The following things able to list as outcome of the discussion.

- He has confirmed that planning is underway to standardize subcontractors' agreements to the industry based on the FIDIC subcontractor's agreement for minor works in conjunction with Standard form of Contract for Minor Works (ICTAD/SBD/03) as pilot project.
- The USA and Canada practices in SOP concept was raised to the interviewee and confirmed about unawareness of their application.

Interviewer has forwarded literature about their practice and interviewee taken a copy and gone through at glance. It was very keen fruitful matter to discuss beyond that and knowledge was shared during the interview period. Finally, he assures to study in detail about their practice and further to table with their director board in order to incorporate in their propose SBD/03 revision.

#### **4.6.4 Interview's outcome with Adjudicators**

Finally, Adjudicators who are authorized to practices and registered under the CID Act had been selected for the interview and three interviews were done out of selected five. According to the discussion the reveal factor is that payment dispute is one of the most burning dispute in the local construction industry. The interviewees are pleased in the newly enacted CID Act as it gives legal recognition to practitioners to involve in construction dispute resolution. Every participants in this category agreed that CID Act has fulfilled basic requirements for dispute adjudication under the 'Part IX – Settlement of Disputes' which need for SOP concept too. At the moment the CID Act included the adjudication process under following circumstance.



Pursuant to Clause 50 of CID Act 2014, if the parties so desire any dispute relating to a contract for construction works, if it is not provided for in the contract, may be settled through conciliation or mediation by the Authority.

Pursuant to Clause 51 of CID Act 2014, further stated that a party to any contract relating to an identified construction work, if unable to settle any dispute by conciliation or mediation by the Authority, may refer such dispute for adjudication.

All interviewees were aware on SOP concept where in practices but declined to give in-depth answers as they were not prepared before the interview. In general, interviewer's categorization (three tiers) on basic SOP concept is agreed.

The question raised with the interviewees on credibility of Adjudicators' capacity to handle the scope in the industry. They have pointed out that less number of professionals had been registered so far.

One of the interviewers comment on lack of adjudicators' requirement to cater the current necessity and request to highlight this report for academia's awareness by quoting the Queensland's Industry Payment Act 2004. According to the Act the government formed the Building and Construction Industry Agency (where similar to CIDA in Sri Lanka) to provide adjudicators' quality and mentioned that "one of the roles of the Adjudication Registry is to ensure that an effective educational and awareness strategy is in place with regard to the statutory obligations and entitlements established under the Act". The benefits of Adjudication is highly recommended by one of interviewee in order to help for readers and given relevant abstract papers to enclose along with this report and hence enclosed in Appendix D as additional reading materials.

#### 4.7 Synthesis analysis of Primary Data and Literature Review

Details shown up to the Section 4.6 in this Chapter are called as notes on the interview according to Blaxter et al. (2006) and these notes are to be analyzed now as they comprise on: “most significant things are considered for the particular purpose; direct speech with selective parties, spoken only after the speaker has thought; determined in part by what the speaker thinks the listener might want to hear”. Therefore, he further recommended to analyze them by the way of sorting, coding, reducing or summarizing the data from their original form. Casterle et al. (2011); Savage (2000) explained that qualitative data analysis is an extensive and challenging activity, confronting the researchers entertain with many problems. Because once data are collected it becomes the most paralyzing moments in qualitative analyses (Jennings, (2007); Sandelowski (1995).

Now collected notes have been examined in the following manner.

#### 4.8 Why rational solutions fail on payment disputes?

Firstly, the Literature Review (LR) proved that construction industry perform all over the world and identified that disputes are inherent and being treated as world phenomenon which summarized in Figure 4.9.

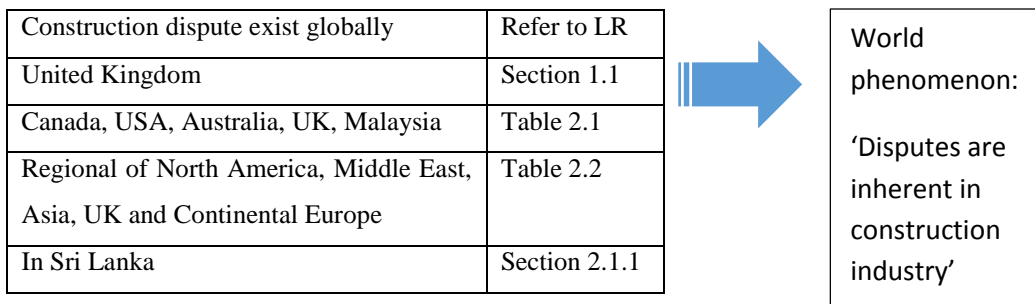


Figure 4.9: World phenomenon – disputes are inherent in construction

Within this world phenomenon, different types of disputes can be identified i.e. delay and payment can be highlighted as an example as per Section 2.1.1 and 2.1.2. At the same time, payment dispute would be a cause to delay of project (effect) as mentioned in conclusion and recommendation in Porrostam and Ismail's (2012) and factor (1), (5) and (7) are in financial matters out of ten factors listed in his report. Hence, issue of the research has been selected as solution for payment disputes based on SOP concept where not in Sri Lank but most of other countries already in practice in decades. The reasons for selecting of this research issue is justified in following sub-section.

#### 4.8.1 Payment dispute as world phenomena

The literature Review has proved that payment disputes exist in the world and potential solution need for every society. Already, there are rational paths in practice during decades and accepted by all interviewees as per details in firsthand data collection. The rational paths are summarized in the following Table 4.10:

Table – 4.10: Rational methods for payment dispute solution

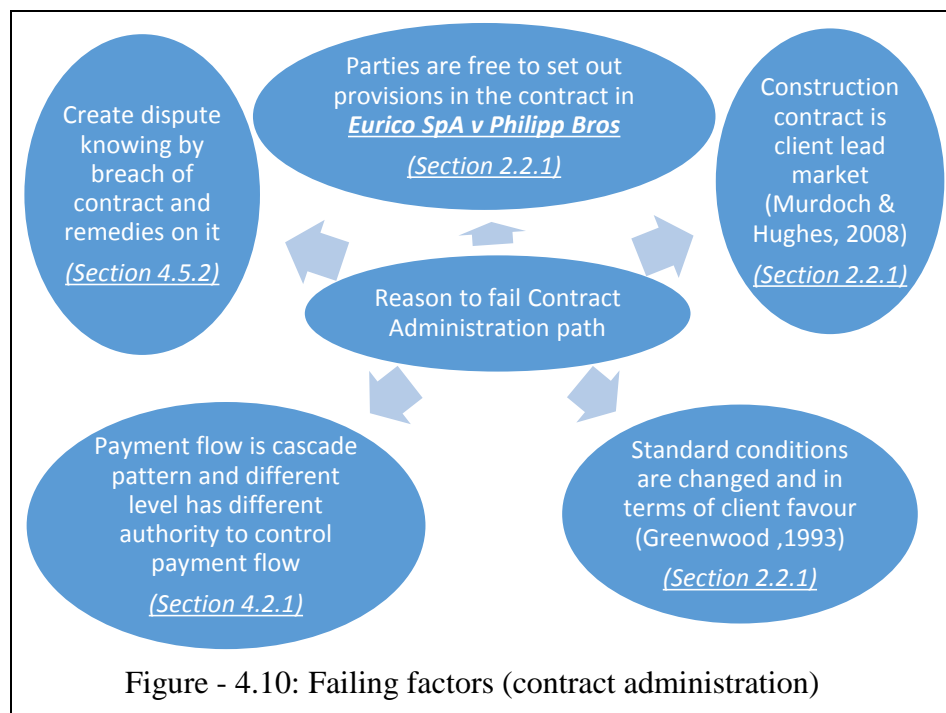
| Category                               | Confirmed by  |
|--|---|
| Contract<br>Administrative<br>practice | <p>Literature Review –</p> <ul style="list-style-type: none"> <li>• Section 2.2.1 stated that this practices using the general conditions of contracts and examples illustrated in Table 2.4;</li> <li>• Section 2.2.1, CEM (2009) established that helping of contractor's cash flow through payment would to avoid payment dispute.</li> </ul> <p>Primary Data – All interview parties are agreed the existence of this practice.</p> |
| Legal<br>application                   | <p>Literature Review - Sir Jessel said that failing contract administration method the matter refers to the Arbitration/litigation for the dispute resolution in <i>Printing and Numerical Registering Co. V Sampson (1875)</i></p> <p>Primary Data – All supply chain management parties accept for necessity of legal application.</p>  |

This is very clear that rational approach for payment dispute having two methods. Having practiced many decades the world has experience that rational paths unable to catering the current situation properly and need further solution due to the following reasons.

#### 4.8.2 Why these rational are failed?

The abstracted data from Literature Review and interviews, both confirmed the reasons behind this failure on Contract Administration is in Figure 4.10 and Figure 4.11 are illustrated how the legal approach failed.

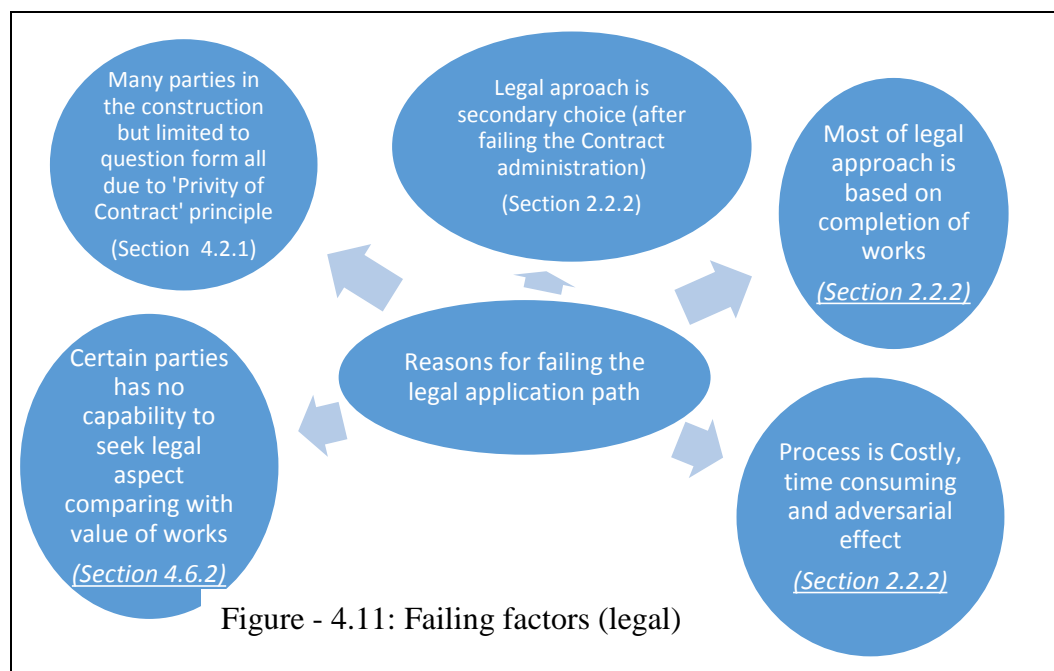
- **Reasons failing to Contract Administration path:**



Basically this Figure 4. 10 has proved that even a properly made contract either party can dishonor to the provisions in the contract during the execution. Even, S. Mitkus and Mitkus (2013) confirmed that main cause of conflicts of construction project as unfair behavior of parties. The purpose in terms of money is to gain short term advantages on their cash flow either by delaying or non-payment, knowing that their liabilities under breach of contract. Hence, payment dispute remains same.

- **Reasons failing to legal application path:**

The law has facilitated to create a proper contract during the contract administration but tend to fail due to the short term advantages application by the contract parties through non-payment and withholding dues to the other party. Once it fails to settle within them it will be passed it to the legal approach and legal experts to involve and settle it. However, expected outcome from this method also failed due to many reasons and they are summarized in following Figure 4.11.



Hence, meaning of litigation is entering to the legal application after failing of Contract Approach, to settle the dispute. It has adversarial effect on long term business relationship i.e. additional management time which have not contributed to production of goal; time lagging; additional expenditure which has not accounted in the budget or contract amount/sum/price and therefore, there is no value for money to the client in this process as their money and management time has not utilized for productivity and only an additional burden to resolve things.

Mitkus and Mitkus (2013) confirmed that effects of psychological defenses apply by the parties during the litigation also named as cause of conflicts of construction.

Hence, this has proven that both applications is not up to the standard currently and need new application. The effects to the industry is shown below.

#### 4.8.3 How far payment dispute effect to the industry?

With reference to the section 4.6.3 the payment disputes directly effect to subcontractors who represent 75 per cent in the industry. There will be further parties below subcontractors like suppliers, sub-subcontractors. When comparing flow of cascade payment pattern in Figure 4.2 the main contractor identify as one of cause of party on dispute and his effect can be highlighted based on abstracted data from the Table 4.4 to Table 4.6 which are summarized in Table 4.11.

Table 4.11 – Interviewed SCM parties

|                |                                |  |
|----------------|--------------------------------|--|
| From Table 4.4 | Suppliers (Red colour)         | 1 = Raw Materials; 2 = Artificial Materials; 3 = Steel & Aluminium Materials; 4 = Finishing Materials; 5 = Service Equipment               |
| From Table 4.5 | Subcontractors (Yellow colour) | 6 = Labour supply; 7 = Steel Structures; 8 = Aluminium work; 9 = MEP Services (Electrical); 10 = MEP Services (Plumbing); 11 = Landscaping |
| From Table 4.6 | Rental parties (blue colour)   | 12 = Scaffolding; 13 = Tools; 14 = Machines  |

When comparing the main contractor's payment decision effects on parties who are in Table 4.4 to Table 4.6 the qualitative facts on the issue can be highlighted in Figure 4.12.

|           |   |   |   |   |                |   |   |   |    |    |                          |    |    |  |                 |
|-----------|---|---|---|---|----------------|---|---|---|----|----|--------------------------|----|----|--|-----------------|
|           |   |   |   |   |                |   |   |   |    |    |                          |    |    |  | Drastically (D) |
|           |   |   |   |   |                |   |   |   |    |    |                          |    |    |  | Usual (U)       |
|           |   |   |   |   |                |   |   |   |    |    |                          |    |    |  | Seldom (S)      |
| 1         | 2 | 3 | 4 | 5 | 6              | 7 | 8 | 9 | 10 | 11 | 12                       | 13 | 14 |  |                 |
| Suppliers |   |   |   |   | Subcontractors |   |   |   |    |    | Equipment rental parties |    |    |  |                 |

Figure – 4.12: Payment effect on industry from main contractor

This Figure 4.12 proves that ten parties are drastically effect out of fourteen and become a culprit party on payment dispute in construction industry as main contractor by failing the payment to his subordinators.

In this situation, the rational approach is not fulfilling current world expectation and hence, tend to find a potential solution for the payment dispute in Sri Lanka.

#### **4.9 New approach in the world and key criteria**

In end nineties, the UK has formulated new application to answer the payment dispute by introducing new concept which named as ‘Security of Payment (SOP)’.

##### **4.9.1 SOP concept**

As per Section 2.2.3 in Chapter – 2, the situation behind the concept was that many subcontractors who performed under main contractors were not paid and construction industry was tensed about the situation. Hence, this concept was introduced by the UK first. The Table 1.1 is listed the SOP concept adopted countries and highlighted in world map as show in Figure 4.13.

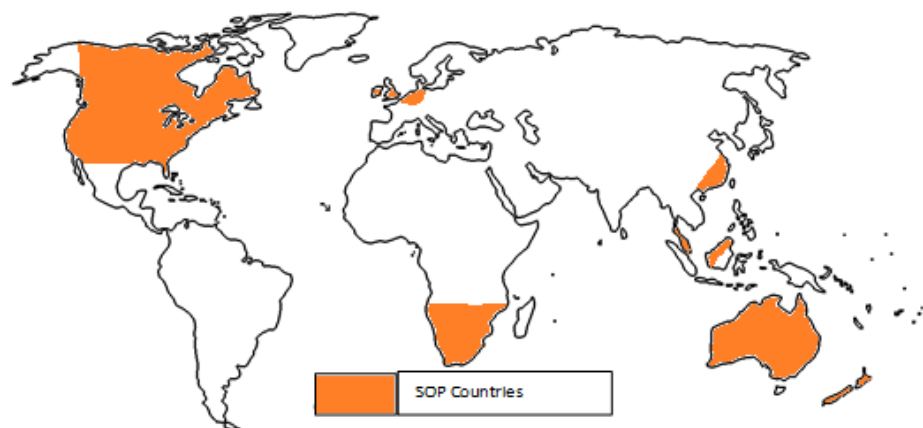


Figure – 4.13: SOP distribution in the world

Unfortunately, Sri Lanka does not represent the name in Table 1.1 as well as in the Figure 4.13 above.

#### **4.9.2 Key criteria on SOP concept**

Section 2.2 identified that both rational system is segregated practices and section 2.4 proved that SOP concept would be able to combine the both rational system under the one umbrella according to the features in main three tiers listed in the Table 2.6.

The biggest advantage in this system is that irrespective of provision of payment whether included or not in the individual contracts the rules in the Act govern the process. In that most of main contractor's malpractices to their subordinates are vanished while honoring to follow the legal application as supremacy of law. When referring to the Table 2.8 to Table 2.19 throughout Section 2.5.1 to Section 2.5.3 in Chapter 2 are shown the flow of SOP concept in the countries of UK, South Australian, New Zealand and Singapore which can be highlighted as key criteria of SOP requirement.

Not only form the Act, there are guidelines prepared to handle the Act and Post and Nualaiochta (2016) has produced the information booklet which contains for toolkit for Ireland Act and Building and Construction Authority (2005) has introduced the Information Kit as guideline for Singapore SOP Act and key criteria for the SOP concept can be abstracted from them (Appendix F).

Other than above, there are scholars' reports on key criteria and Trower and Hamlin (2011) reports confirmed that SOP Act 1996 in the UK has been amended in Local Democracy, Economic Development and Construction Act 2009 and under part 8 the Section 138 to 145 are represented the necessary amendment to the original Act and further categorized as Introductory provisions; Adjudication; Payment and Withholding payments. Williamfry (2015) stated that the Ireland has enacted the Construction Contract Act 2013 and report highlighted the scope of the Act. The main areas on the report covers for payment provision and adjudication.

Not only the above explanation the criticism of practice also can be considered many key criteria to look for the better understanding.



- **Ten years' experience in SOP concept**

Apart from the firsthand data collection through interviews the Secondary source data collection requirement is further essential as interviewees were not familiar in-depth of the SOP concept. Thus report writer has allocated time to go through the Secondary source data forum to collect necessary information on other countries' Act. The analysis of Act has been considered the after ten (10) years review of Act in UK industry.

Accordingly, Bringham (2008) stated that why did UK need this act?

Before the act, before 1 May 1998, what was to be done about payment disputes? Well, what you could not do was litigate. The courts in 1998 could not decide a dispute without "a deep forensic investigation". But commerce, particularly building contractors, needed something faster – miles faster.

He further stated that when the act was enacted the industry events were boomed quoting by:

Cash flow starvation tactics were tackled immediately and effectively. Start to finish, the process was 28 days ... crash, bang, wallop. None of that needed lawyers. And I bet, if you pause here, all that makes sense, doesn't it? All it needed was an engineer, QS or architect to look, sniff, prod and decide.

Again, Dominic and Klein (2008) expressed the situation before and after of act as:

Would you prefer to abolish the Construction Act and go back to the position before it was introduced? If we put this question to the industry, I expect that the overwhelming majority of firms (which are, of course, SMEs) would

respond with a resounding “no”. Those of us around before Latham’s 1994 report (which recommended the legislation) will recall how the industry was embroiled in internal strife. Many contractors, faced with spurious set-off claims, would be told: “If you don’t like it, go to arbitration”. Commercial intimidation was rife, with the result that thousands of firms – many of them well-established – went to the wall.

Upon 10 years practices of SOP, the UK approached to find out its applicability in the industry and found that reform is to be done in order to maintain the original intent based on quoted statement by Lord Lucas in the House of Lords debate on the legislation on 26 February 1996 – “This legislation requires that payment should be defined in terms of amount and date.”

In other words, the payee should know exactly how much it is getting at the payment date. The act left it to the contracts to provide an “adequate mechanism” for determining what was due and when. On reflection, leaving it to the contracts was a bad idea. Most do not have an adequate mechanism.

By reporting all things above the Act in the UK is now cleared that SOP is part of their country law and apply for resolving dispute in payments in the construction of contracts.

Adriannse (2008) explains SOP Act application in UK court and before this Act the contractor was lost the case where he stop the work based on under certificate of payment certificate In **Lubenham Fidelities v South Pembrokeshire DC and Wigley Fox<sup>(11)</sup>** because no right to suspend work for non-payment existed in English law at the time. However, after Act 1996, the situation is changed. In **Ferson Contractors Ltd v Levolux AT Ltd<sup>(12)</sup>** the subcontractor was underpaid and giving withholding notice as per the Act the contractor suspend the work and started adjudication.

The Court of Appeal decided that the statutory provisions of the HGCRA 96 take precedence over the contractual provisions and as a result the adjudicator's award in favour of the subcontractor was enforced by judgment.

In *Carillion Construction Ltd v Devonport Royal Dockyard Ltd*<sup>(13)</sup> stated that the aim of the legislation as meeting the legitimate cash-flow expectations of contractors and subcontractors. Later this has further can be confirmed from in *Rupert Morgan Building Services (LLC) v Jervis*<sup>(14)</sup> by quoting that Act as stopping main contractors treating subcontractors as 'unpaid bakers'.

In the analysis from section 4.7 to section 4.9 that payment disputes exist in the construction industry and rational solutions are failed. With the research outcome a new solution as SOP concept was initiated and potentially help to resolve a payment disputes. According to these explanation, the first three objectives are in Chapter 1 is achieved.

#### 4.10 Industry conditions against SOP concept

In order to introduce SOP concept to the local construction industry, their present behavior needs to be understood and Primary Data collection was completed as per Section 4.2 to Section 4.6 and analysis of them as follows. The planned interview parties are listed in Table 4.1 and compared against the actual participant which can be in Table 4.12 as follows.

Table 4.12 – Comparison on interview participants

| Item | Parties                                 | Selected qty. | Response | Ratio |
|------|---|---------------|----------|-------|
| 1    | Suppliers                               | 20            | 15       | 75%   |
| 2    | Subcontractors                          | 20            | 17       | 85%   |
| 3    | Equipment rentals                       | 5             | 3        | 60%   |
| 4    | Main contractors                        | 10            | 6        | 60%   |
| 5    | Professionals (Contract Administration) | 5             | 5        | 100%  |
| 6    | Professionals (Legal Advisors)          | 5             | 5        | 100%  |
| 7    | Professionals (Adjudicators)            | 5             | 3        | 60%   |
| 8    | Professional Institutions               | 1             | 1        | 100%  |
| 9    | Client                                  | 2             | 2        | 100%  |
|      | Overall                                 | 73            | 57       | 78%   |

Table 4.12 indicates the weightage of responses against plan quantities and proves that total response as above that 75 percent and all individual events which have more than 60 percent participation which would be reasonable to treat industry as whole.

The pie chart is prepared to illustrate at a glance Figure 4.14.

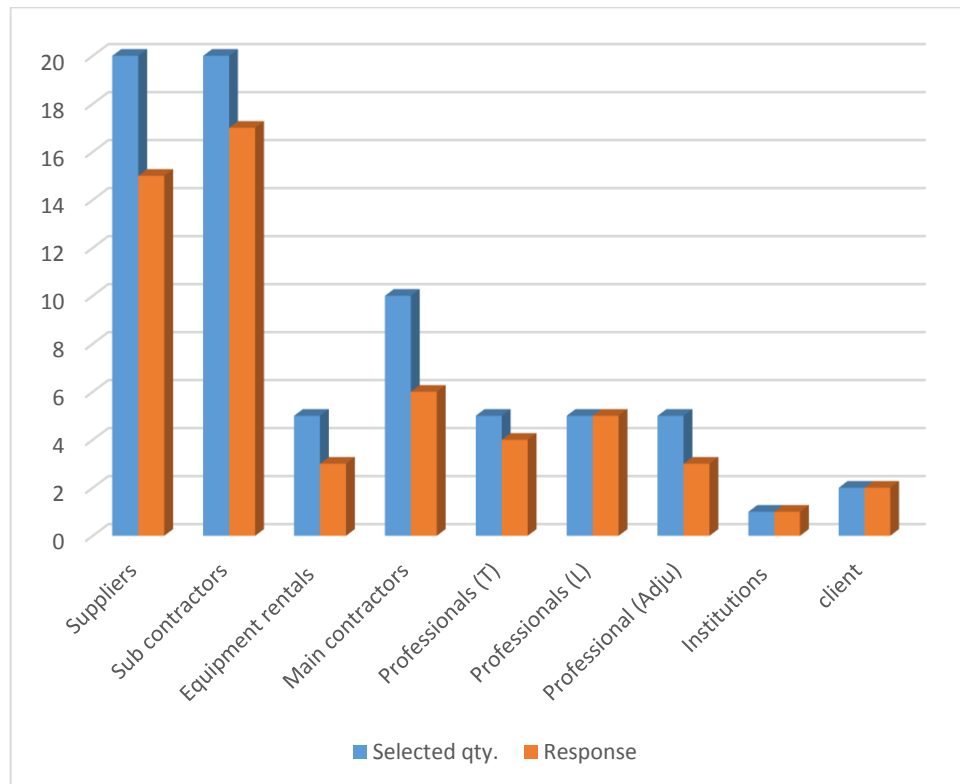


Figure 4.14 – Interviewed parties’ weightage – actual v planned

#### 4.10.1 Overview on SCM parties

The interviews were carried out with SCM parties and identified that payment flow is cascade pattern which starts from the client as explained in Section 4.1. Within the flow, it appears that cause and effect of the payment disputes can be subdivided into two layers and their evaluation is incorporated in Figure 4.15 below.

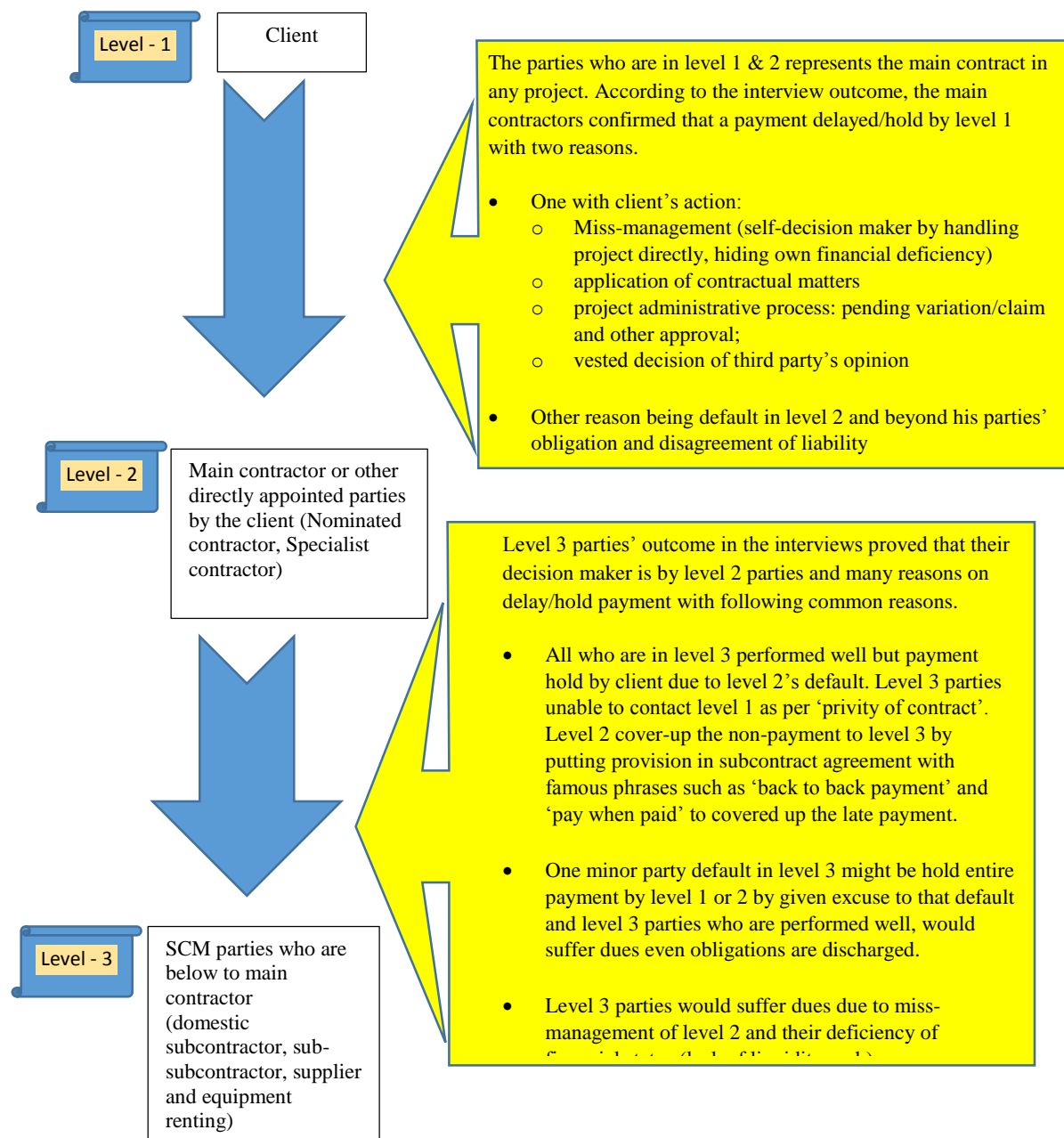


Figure 4.15: Different layers in payment flow with SCM parties

According to the above figure, it is quite clear that the breaking of cash flow can be started between level 1 to 2 and level 2 to 3. However, Hughes and Mordoch (2008) mentioned that:

The primary obligation upon the employer is to pay the contractor the sum of money which forms the consideration for the contract. Money must be paid promptly and fully unless there are specific reasons for withholding it.

As per Mordoch's statement a withholding of money is possible on reasonable grounds, however common construction contract it has flexibility to pay in the interim payment until finalization. This has been witnessed pursuant to clause 12.3 of FIDIC Red Book and stated that:

Until such time as an appropriate rate or price is agreed or determined the Engineer shall determine a provisional rate or price for the purposes of Interim Payment Certificates

Hence, it is very clear that unacceptable circumstance of payment delay/holding is not a good practice in construction projects because Lord Denning said that "the cash flow is the life blood in construction organization". Even having proper construction contract is not sufficient to cater the practical approach in the process and some thing is now required to support for the system in order to maintain sustainable industry in any community. The other outcome highlighted in the above figure is that parties' mismanagement of the project. In this situation far below parties are suffering by non-payment and most cases the powerful party(s) uses others money to recover their own financial activities for short run period until their comfortable finance status.

This falls with the legal doctrine of 'unjust enrichment of others money' which the law practices against the wrong applicant. Therefore, having made proper construction contract may not be enough to maintain this legal doctrine, hence common acceptable law principle has to be established on top of the construction contract.

When completed the SCM parties' interviews, following outcomes are summarized as facts of payment dispute and where areas to address for appropriate solution for the issue. They are:

- a) The client is a key play holder in a payment matter and there is no contractual link between client and subcontractor/supplier who has appointing by a main contractor. Even payment to a main contractor by client, there is possibility on non-payment to subcontractors and suppliers by a main contractor where he gets higher authority to treat against their particular subcontract agreement. Then victims are not in a position to address the matter to a client directly or take legal action against client due to the application of law concept which is '*privity of contract*'. Thus, project activity could slow on progress and client can address this matter directly to a main contractor only even though victim parties' contribution belongs to the particular client.
- b) If one default of main contractor's subordinate a client hold entire payment which entitle for the main contractor. There are subordinates who have performed according to the contract and waiting for money a main contractor unable to pay as non-payment status from client. In order to face this situation, a main contractor applies 'pay when paid' clause in the subordinators' agreement. The performed party would face cash flow unbalance with the expenditure on utilized resources to complete the work and unable to recover the cost and business would collapse soon.
- c) A 'back to back payment' or 'pay when paid' provisions in the subordinators' agreement would misuse by a main contractor.
- d) The sub-contractors and suppliers do not have better financial position to address in the legal action when comparing the value of work that are serving to a main contractor on particular project.

- e) The interview with Contract Administrators pointed out that multiple times a main contractor hide a non-payment situation of subordinates which would suffer the actual rate of progress and most of time situation revealed during the progress meeting after passing many number of sessions. This can become an un-due influence to client to release if payment are holding by him due to many other reasons. Therefore, a main contractor get bargaining power with either a client or with his subordinates to overcome some situations.

All SCM parties are completed the interview and facts are proved that most of SCM parties are victim of the payment dispute and need potential solution to address the situation. The SOP concept was highlighted during interview with the SCM parties and most of them were not aware about the concept. Therefore, further step adhere to discuss with the Project Demanding Parties and decision makers to find potential solution for the payment issue.

#### **4.10.2 Overview of Professionals/advisors/policy makers' outcome**

It was failed to obtain proper answer to establish the SOP concept from the victim parties and reasons are discussed in Section 4.10.1. The next approach was to analyze the interview outcome of the professionals.

##### **➤ Facts from Professionals (Technical)**

The professionals who are served as contractor administrator in the project, have been received the authority to administrate entire process including influential parties i.e. the client and contractors. Therefore, their view and advice on payment dispute would be relevant to find out a solution as they are well aware of the facts, cause and effect on this particular dispute.



As per collected interview data in Section 4.6.1, professionals who serve both Design and Contract Administration (D&CA) confirmed that all most all the payment disputes arising during the construction progress and certain disputes are under their control except level 3 parties who are in Figure 4.15 above. This is a true statement as level 3 parties are controlled by the main contractor from selection, appointing, progress of works and supervision including remedying of defects and responsible for entire contribution. Hence, level 3 parties' payment dispute might not be disclosed by the main contractor and never arise in the D&CA professionals' forum until project suffers with slow progress. According to the characteristic in the local construction industry this level 3 parties' impact is significant. This situation was again confirmed during the Policy Implementation Institute interview as per detail enclosed in Section 4.6.3 above which mean that subcontractors are more than 75 per cent in the local construction industry as per their statistics.

As per one of the Chartered Architect's interview results exemplified that there are more construction in small scale projects which execute under informal contracts in the local industry. Their value is very less but involved parties form the society is somewhat ten times more than who are in mega projects. His intention was to see a good mechanism to cover-up them on the payment disputes. Overall, they are unable to suggest any improvement and accepted that appropriate solution is required for sustainable industry. When the SOP concept was explained they were unaware of it and were eager to establish it if possible.

➤ **Facts from Professionals (Legal)**

The legal advisors' comments are in Section 4.6.2 confirmed about unawareness contract administration process at site and only able to comment on legal approach once dispute handed over to their action as post mortem of the dispute. Their statements comprise that dispute would be resolved by application of law principles, doctrine, rules and concepts which depend on facts on the matter. Therefore, a decision always depends on proving of facts and fairness/reasonable outcome are subjective.

One legal advisor argued that a lawyer needs to be appointed at the tender stage to take care of the legal application to the contract. This question was raised to one of interviewee (as the director capacity) who is prominent cost consultant service provider in the local construction industry. Mentioning his experiences with more than thirty years in the services, he confirmed that no legal advisors appointed to establish the contract and only standard documents are obtained (who legal draftsman tested and recommended for application) to use in the construction contracts. The legal advisors accepted that payment disputes can be settled during the contract administration level.

All have given their consent that adjudication process in the SOP concept would facilitate as good solution to answer the payment dispute even subcontractors' also obtain it with less fee for that service.

The SOP concept was discussed among them during the interview. They were aware about the concept but not in a possession to comment in-depth answers accordingly to the short interview period.

The current trend in the local construction industry has been discussed with the interview parties and collected facts are as follows:

- The Construction Industry Development (CID) Act No. 33 of 2014 and The Right to Information (RTI) Act No. 12 of 2016 would be a new development to the construction industry to overcome certain disputes.
- Comparing to the CID Act, the basic SOP concepts are touched and they are: define the meaning of specific words; legalization of Adjudication to resolve dispute in the construction and accordingly establish registered Adjudicators Boards under the collaboration of Construction Industry Development Authority (CIDA).

- The RTI Act allows to obtain the information from the government related organization. This has a big impact on construction industry once the construction project is belongs to the government. With this facilities the contractor enables to obtain true information on client's payment status in order to mitigate the payment related dispute as when required.
- One of professional's comment was that if the client is by the government, an application of SOP concept on delay of payment become a culprit.

➤ **Facts from Professional Institution**

The Section 4.7.3 covered for interview with the Professional Institution and with that received facts are analyzed in the following Table 4.13.

Table – 4.13: Existing industry factors

| Revealed Facts  | Analysis  |
|---|---|
| Industry comprises:<br>25% - Main contractors<br>75% - Subcontractors | <p>This (interviewed) is government authorized institution which the construction industry statistics to produce and published. Therefore, fact is reliable source.</p> <p>This factor has been further proved by separate interview with one of the main contractor who had recently completed project with contract sum of Rs. 640 million and 35 nos of subcontractors and suppliers list was produced as evidence during the interview.</p> |
| There is no standard agreement procedure for subcontractors.          | Institution expects to introduce standard documents similar to FIDIC subcontract agreement in order to avoid unfair terms for subcontractors' agreement.  |
| Standardization of Adjudication procedure                             | In order to practice good system, the institute has started to form a good Adjudicator team or panel for future commitment.   |

Table – 4.13: Existing industry factors (cont'd)

| Revealed Facts                              | Analysis  |
|---|---|
| Comments on SOP concept                     | <p>Interviewee was very keen about the concept and taken few points on this interview to discuss further with their board meeting.</p> <p>His main worry is about the public client's situation on non-payment after establishing of SOP Act.</p> <p>Instruct interviewer to search for criticism of SOP practitioners to identify the pros and cons.</p>   |
| Alternative solution other than SOP concept | <p>The USA and Canada has simple practice similar to SOP concept given by UK.</p> <p>The interviewee is not aware this (USA system) and keenly continue session into knowledge sharing session with the interviewer.</p> <p>End of the session, Institute gain key point from interviewer to develop the USA method to put forward this finding into their decision makers to amalgamate with their revision on ICTAD/SBD/03.</p> |

Interview with Adjudicators' proved that a SOP concept in place with the Adjudicator's role and key criteria to success the concept and if not cases are shown in many countries that Adjudication decision challenge in the courts and set aside at last.

#### **4.11 Propose: SOP concept is necessary for Sri Lanka**

Having considered all the analytical review in Section 4.10 based on the collected Secondary and Primary data, the selected issue exist on payment dispute in Sri Lanka. All interviewed victim parties on payment dispute have confirmed that potential mechanism is necessary to serve in the industry to sustain in their business in long term basis with less risk in payment while dealing with their immediate pay

master. The legislative Institution and other Professional interviewees confirmed this victim parties' statement. Their main point for this acceptance because local construction industry in Sri Lanka is mostly depend on subcontractors/suppliers contribution and quoted that more than 75% of ICTAD registration is for subcontractors who have performed under the main contractors. For the subcontractors' contribution their payment flow is through many steps and Malecki (2015) explained that ideal scenario on payment flow on due payment starts funds move from the owner-developer to the main contractor and, only then, are they dispersed among various subcontractors.

However, in reality payment is withheld or delayed in many projects and parties who are in the lower level in cascade payment structure would put them in jeopardy. Hughes et al. (1994) explained that a main contractor who is suffering cash flow difficulties can temporarily counteract them by withholding payment to subcontractors. In this purpose to get contractual status most of time main contractor include provision in the subcontract agreement and liabilities reduce by applying 'pay when paid' clauses. Such clauses explicitly state that a subcontractor is not entitled to payment until the contractor has been paid by the owner. The LR proves that many countries' in the government has decided to control main contractors' unfair treatment to the large crowd who are in after him in the construction market.

Accordingly, many countries introduced SOP concept and linked with their legislation and introduce state Act to avoid unfair provision on any individual subcontract agreement. This can be identified while referring to the countries' objectives whenever the Act was introduced.

For an Examples, In South Australia, objective of the Building and Construction Industry Security of Payment Act 2009 stipulated that Act is to ensure that a person who undertakes to carry out construction work (or who undertakes to supply related goods and services) under a construction contract is entitled to receive, and is able to recover, progress payments in relation to the carrying out of that work and the supplying of those goods and services. Coggins (2009) pointed out that different part

in the Australia has different objectives on SOP application. For an example the object of the West Coast's Act is "to provide a means for adjudicating payment disputes arising under construction contracts". The West Coast model, therefore, allows all payment disputes under a construction contract to be submitted to statutory adjudication. Whereas, the East Coast model restricts statutory adjudication to progress payment disputes only.

In Singapore, Netto and Tan (2009) in Clause 26.9.9 of Chapter 26 – Building and Construction Law stated that the primary objective of the legislation is to redress the difficulties faced by the construction industry in obtaining payment for work done and services rendered. The intention of the legislature is unequivocally to facilitate payment in the construction industry.

In South Africa, Maritz and Robertson (2012) stated that African specific surveys conducted by the Construction Industry Development Board (CIDB) and Consulting Engineers South Africa (CESA) on payment entitlement for Contractors and Consultants who are in their industry and recommended that to embark on a prompt payment legislation and proposed to include for:

Protection of both the contracting and consulting fraternities; Statutory adjudication or a similar dispute resolution mechanism to ensure swift dispute resolution of payment disputes; a right to a defined time frame for payment; a right to interest on late payments; the provision of escrow accounts, or similar trust accounts, to the benefit of the contractor and for retention money retained from the contractor; a restriction of the right to set-off or to withhold sums due; Provision for a mechanism that will ensure that an employer cannot withhold payment from a contractor unless he has given an effective notice of his intention to withhold such payment; Statutory provision for a contractor's lien; a right to

allow for stage payments for material in advance of their arrival on the construction site; a right to suspend work coupled with right to reimbursement and additional time as a result of the suspension and remobilization; and prohibition of ‘pay-when-paid’ clauses.

Ali (2009) stated that ‘UK Construction Act has made a big impact on the way construction disputes are resolved in the UK since 1998 and nine Acts of Parliament around the Commonwealth jurisdictions that deal with payment and adjudication of construction disputes’ in UK (The Construction Act); New South Wales, Australia (NSW Act), Victoria, Australia (Vic Act); New Zealand (NZ Act); Queensland, Australia (Qld Act); Western Australia (WA Act); Isle of Man (IoM Act); Northern Territory, Australia (NT Act); and Singapore Act.

He further stated that in 2009 the Malaysian construction industry was backing to introduce SOP Act and Hong Kong, South Africa, South Australia, and Tasmania in a road map to adopt the SOP concept. In this situation Sri Lanka is also a part of Commonwealth countries and if so, the SOP concept is good to have incorporated in the Sri Lankan construction industry too with the need to identify their prime requirements.

#### **4.12 Chapter Summary**

The Primary Data collection of payment dispute was the first part to be achieved and it had been conducted through interview with the selected primary stakeholders who are in the construction industry. The firsthand information were collected which identify the behavior on local construction industry against the payment dispute. It appeared that industry suffer payment disputes and need potential solution. This was the answer for third objective set out in the Chapter – 1.

Analysis was started to evaluate the data collected through Literature Review and Primary Data related to the issue which would facilitate a solution for payment dispute. It appeared that rational approach has not responded properly to the industry requirement. The findings were strengthening the new approach which the UK has introduced Security of Payment (SOP) concept. This concept is not in Sri Lanka yet and issue in this research on about how to introduce it and therefore, this is checked with industry and identify lack of awareness by majority of stakeholders.

Having analyzed using Secondary source data and Primary Data of the issue it can be suggested that SOP concept is good for Sri Lankan practice and to be introduced as potential solution for payment dispute.

Therefore, main features on SOP concept is evaluated based on selected countries' Act and suggested contextualise features which need for Sri Lankan requirement in the next Chapter.



## **CHAPTER FIVE**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Conclusions**

This dissertation is the integral part of the Master of Science Degree in Construction Law and Dispute Resolution academic programme where students need to perform by finding an outcome for a selected issue. Cheung and Yiu (2006) phrased that practitioners and academics shall accept of “prevention is better than cure” concept and prepare for development of innovative mechanisms to prevent the occurrence of costly disputes. As the academic student the selected issue in the dissertation is for finding a solution for one of significant disputes in the construction industry the ‘payment’. Maritz and Robertson (2012) confirmed that “smooth cash flow ensures the effective delivery of projects and is fundamental to develop and sustain a healthy, professional and competitive construction industry”. The Latham reports (1994) addressed the good practice for healthy cash flow and named as ‘Security of Payment (SOP) concept’ as solution for payment disputes in the UK, whereas many more countries were adopted this practice whereas not in Sri Lanka yet. Considering Sri Lankan situation, the selected issue in this research attempts to introduce a SOP concept (goal) for payment disputes in local industry. In order to achieve the goal the aim and objectives are set out in the Chapter – 1 and conducted research according to the Methodology given in Chapter – 3. As the selected issue is new to the society and the appropriate data would not be retrieved directly, there are different approaches were adopted in the following manner.

The Chapter one of this report comprises of the introduction of the issue and the related area, it sets out the aim and objectives to achieve with the expected findings and appropriate methodology is included therein with the chapter breakdown. The Chapter two focuses to find out the Secondary source data collection through Literature Review (LR). This LR mainly focused to the current practitioners’ publications through the desktop data collection by internet and library usage.

Chapter three is the Methodology which indicates the research design under the qualitative method. The Chapter four is allocated to provide firsthand information collection under the Primary Data (PD) category and the selected interview method with the particular stakeholders in the construction industry. Upon collection of both data the analysis of findings were carried out in the same chapter. Finally, Chapter five highlights all the findings in this research and give recommendation according to the set objectives.

The collected findings are streamlined subject to the set objectives and as follows.

### **5.1.1 Findings on first objective**

According to the Chapter 2 and 4 explanation, the payment disputes exist in the construction industry and analyze the inefficient of rational solution. The significant facts are summarized here.

- ✓ The LR proves that construction contracts exist disputes (Section 2.1.1) and is a common phenomenon in the world (Rahman et al., 2010) in the same chapter. Among the disputes a payment is a significant and common to any project (Section 2.1.2) and also phenomena in the world as well as exist dispute in Sri Lanka (NCASL, (2010); NDB (2010) in the Section 2.1.2). In the analytical approach the Figure 4.9 marks the construction disputes as world phenomena and Section 4.8.1 explain the situation about payment dispute also as world phenomena.
- ✓ Solution for the payment dispute has been listed in Section 2.2 and they are as rational approaches on payment dispute solution and one is (a) Contract Administration path and other is (b) Legal application. Both of these approaches are tested in LR and PD collection method and analytically schedule in Table 4.10.

- ✓ The failure on rational approaches is discussed in Section 2.2.1 and Section 2.2.2 with the examples. Finally, the failing factors are illustrated in Figure 4.10 and Figure 4.11 in Section 4.8.2 and significant factors are further listed down below:
  - Parties to the contract are free to establish provision in the agreement. The preparation of documentation by a client as construction industry leads by him. In this situation influential party does keep more favourable provision within them and during Contract Administration the applicable provisions would be failed to gain short term benefits especially for cash flow provision.
  - Contractually, dishonors on cash flow provision would be a breach of contract and complicated to settle mostly by both parties to the contract and prolonged to reach an agreement. With that the victim party(s) would suffer the financial difficulties further being unable to survive until receiving of settlement.
  - There is no strong remedy procedure on failing on Contract Administration other than seek on legal application. However, legal application also unable to provide desired outcome.

Accordingly, first objective is achieved and justified as above. The world seeks a new approach on failing of rational solution in payment dispute. Secondly, current solutions were identified and analyze their strength and weakness through the LR and PD category and explained in the following section.

### **5.1.2 Findings on second objective**

The second objective is dedicated to understand the holistic approach on selected issue in the dissertation.

In the line of failing on rational approach there are many researchers' findings were presented to the world for solution to the dispute and one found in the Latham report which describe new approach as 'Security of Payment (SOP) concept' as potential solution. In nineties, it was enacted as 'Construction Act 1996' in the UK jurisdiction. Very soon this concept was adopted in many countries as mentioned in Table 1.1 in chapter – 1 and at glance they are shown in world map in Figure 4.13 in Section 4.9.1.

The identified main features are listed as follows.

- ✓ This new concept is combined both rational approaches i.e. contract administration and legal application.
- ✓ The flexibility of concept is that it can be backed by Particular County's legislation. For an example The Construction Act in UK.
- ✓ The legislative application provide common ground to any types of contracts and maintain the supremacy over any construction related contracts.
- ✓ Basically, construction contract mainly covered up by 'pivity of contract', whereas this concept enable to go beyond the concept and able to cover up 'n' number of parties who are part of the particular project and possible to treat under one umbrella on payment matter.
- ✓ This can be more benefited by the parties who are in lowering of Supply Chain line due to the legal recognition on dispute parties' request.
- ✓ The settlement time period can be decided by both parties to the dispute.

There are many key strengths in the concept which had been identified during the findings and significant points are highlighted below.

- ✓ The due payment demanding can be done legally by any victim party to any particular contract.
- ✓ The payment delay party would receive the contractual state to stop the progress of works until payment settling by the client.
- ✓ The relevant Act provides the opportunity to involve by neutral third party right from the beginning of the establishment of contract to enact the provisions in the Act.
- ✓ The clarity of the concept is that even the process is backed by the legislation it has no decision binding approach and only available to reach an agreement first which is not satisfied then it forward to the final binding process like an Arbitration under the phrase of ‘pay now and argue later’.
- ✓ The law concept of party autonomy exist in this dispute resolution process.
- ✓ It is now being practiced more than decades and tested for current usage with many revisions.
- ✓ Pillai (2012) pointed out that Singapore SOPA’s objective as a “speedy and low cost adjudication process – so it is maintained with the preservation of the court’s right to intervene, in appropriate cases, where justice so requires” (23, Feature).

Few weaknesses had been identified during the literature review and few are quoted as follows:

- ✓ Even concept is useful there are findings that failing of this. Chuah and Chow (2010) stated that many SOPs' decisions are in Singapore were challenged and courts had to set aside under jurisdictional grounds. The main reasons being Act is largely silent on the ground for setting aside an adjudication determinations and two reasons were identified as:
  - First, on a more narrow footing, it could be alleged that the dispute in issue falls outside the ambit of the adjudicator's power or competence
  - Secondly, and more commonly, determinations can be attacked on the basis that the process or conduct of the adjudication was defective or irregular or that these do not comply with the requirements of the SOP Act.
- ✓ Ellison (2012) has published court decided cases (approx. 55 nos.) against adjudicators' decision on SOP concept in Australian practices. Most of the cases indicated the challenges on adjudicators' decision.

All the explanation proved that SOP concept as capacity to contribute payment dispute as potential solution with relevant to the features, characters listed above. Accordingly, the second objective set out in Chapter 1 has been achieved.

### **5.1.3 Findings on third objective**

In order to identify the status on payment dispute in the industry the interview base firsthand data collection was completed. The main points are listed here in:

- ✓ While observing the interviewed parties' outcome the payment dispute exists in the local construction contracts. Section 4.3 indicated that clients reluctance to admit the payment lagging status. There are provisions to secure the contractor's right to know the client's payment capacity. However, contractor unable to obtain real assessment during the progress of construction works. The Section 4.5 which is for Supply Chain Management parties' collected data shows that all the parties are suffering with payment disputes in their particular contract which can be highlighted as: Suppliers received major payment delay and as per Table 4.4 the rank 1 established for the main contractor; Subcontractors' status are same as above result as per Table 4.5 and they are suffering with heavy risk on their contribution; even equipment rental parties too same as others as per Table 4.6 data.
- ✓ The interviews with the professionals reveal that weightage of payment disputes in the construction of contracts in Sri Lanka is significant while more than 75 per cent contribution who represent below the main contractors. Their effect comes into existence in two ways either from client's payment dispute to main contractor or client paid to the main contractor but did not pass it to the subordinates and clearly highlighted in the Figure 4.8 and Figure 4.15. The Director in Professional Institution has been confirmed the above percentage as correct while his interview and confirm that reason for establishing the Dispute Board Adjudication within their institution.
- ✓ During the interview with the Professional (contract administrator) parties, one of Chartered Architects confirmed that informal small scale projects are more than 75 percent in the industry which the statistics on government schedules were not shown.

They also suffer same payment disputes but nowhere it has been highlighted. His concern these category and request to take care in any implementation of new concept with these category too.

- ✓ How do these disputes arise? The main reason would be non-payment or delay from the parties who are positioned in upper part of the cascade payment structure to his bellows. In these particular cases knowing by main contractor the agreement between him and subordinators would apply special protection provisions which the subordinators have no control over it other than accept. Those are ‘back to back clause’ or ‘pay when paid’ clauses. All interviewees were in Section 4.6 confirmed this situation where the industry suffers.

Having identified the cause of action the appropriate solution to be established. One of solution is planning to introduce through the selected issue in this research. The LR and PD collection were done in this regard and identify data as follows.

- ✓ Recently, the CID Act No. 33 of 2014 enacted and basic requirement on SOP concept is covered by the Act.
- ✓ The SOP needs a prevailing law of society to apply and hence legal system in Sri Lanka has more or less as English legal system for commercial business where the SOP concept that are practicing.
- ✓ The new Act which is RTI No. 12 of 2016 was enacted from 7<sup>th</sup> February 2017 onward in Sri Lanka and would be facilitated to SOP concept when it introduce.
- ✓ The interviewed parties informed that they are having lack of knowledge on a SOP concept to make a comment and would be pleased to have it, after interviewer’s explanation on advantages and benefits of the concept.



#### 5.1.4 Findings on forth objective

Having summarized all the collected Primary and Secondary source data into the first three objectives the following schedule would be possible to propose in order to achieve the forth objective.

Table – 5.1: Finding facts against objectives

| Objective | Facts   | Yes | No | Remarks   |
|-----------|---|-----|----|---|
| 1         | Does construction industry exist disputes   | √   |    | It is world phenomenon  |
| 1         | Does payment dispute part of above  | √   |    | This also world phenomenon  |
| 1         | Rational solutions for payment disputes are:<br>a) Contract Administration<br>b) Legal approach       | √   |    | All LR and interview parties are accepted the categorization.   |
| 1         | Does rational solutions success?  |     | √  | There are many examples highlighted to justify for the 'No'.  |
| 1         | Does all above facts are applicable to Sri Lanka?   | √   |    | According to the LR and PD collection.  |
| 2         | In 1996, the UK said SOP concept provides solution for payment dispute and adopted by many countries. | √   |    | The LR proved that it is the practice for decays with few amendments.   |
| 2         | Does SOP concept stronger than rational approach?   | √   |    | Rational is segregate approach and SOP is the combination of both and supported by supremacy of law (from Act). |

Table – 5.1: Finding facts against objectives (cont'd)

| Objective | Facts   | Yes | No | Remarks   |
|-----------|---|-----|----|---|
| 2         | Key criteria:<br>a) Common approach to the society and provisions in the individual contracts are superseded.<br>b) All the parties are under one umbrella and 'privity of contract' in contract is advanced by concept.<br>c) Apply from form of contract to completion.<br>d) Involved neutral third party (expert dispute resolution) to monitor the system and give recommendation. | √   |    | These are the important factors on SOP concept and all are benefited to provide potential solution for payment issue. |
| 3         | More than 75% stakeholders who are in construction industry suffer with payment issue.  | √   |    | Confirmed by Interviewees.  |
| 3         | CID Act No. 33 of 2014 includes preliminary requirements of the SOP concept   | √   |    | The basic idea of SOP concept for first and second tier are touched in the Act.                                       |
| 3         | RTI No 12 of 2016 enacted in Sri Lanka which can control the public client's payment status.  | √   |    | The new achievement might help to facilitate the SOP concept  |
| 4         | Considering all above, would you recommend SOP concept for payment disputes in Sri Lanka  | √   |    |   |

As per conclusion to Table 5.1 above the SOP concept would be recommended to resolve payment dispute in Sri Lanka and constituent of SOP concept would facilitate the circumstance need while introducing this concept.

## **5.2 Comments on constituent of SOP concept**

The drafting a legal Act is beyond this research writer's capacities as writer is professionally the Quantity Surveyor.

There are research findings dedicated to drafting of SOP Scheme and few are quoted here.

Ali (2009) has discussed the drafting styles on SOP Scheme based on selected nine Acts on his report. His research said that in terms of adjudication's viewpoint, the following list have been selected and discussed individually to identify core requirements.

- i. The title of the Act
- ii. Structure of the Act
- iii. Purpose of the Act
- iv. Definition of a construction contract
- v. Terminology
- vi. Communicating the adjudicator's decision
- vii. Sentence structure – average sentence length
- viii. Sentence structure – using possessives through the apostrophe and active v passive sentence structure
- ix. Gender-neutral drafting

Devanport (2007) mentioned that Australia has SOP Scheme with different application in many sectors. Among that Victorian SOP Act was enacted in year 2003 and further amended on 2006 to enhance the benefit of the Act. He quoted that "... to ensure a balance response to industry concerns, an industry working group was established ..." With this status Victorian Act was matched with New South Wales Act and Queensland also enacted legislation accordingly.

Munnaim (2010) research concluded that SOP Scheme in the world is two types of regime i.e. adjudication independent of payment and adjudication related to payment. It has highlighted the available models comparison and mentioned that

new legislators to give great deal of attention to these and consider them when drafting their own legislation (The abstract table is enclosed in Appendix E).

Ramachandra and Rotimi (2011) confirmed that SOP legislation able to improve late and non-payment practices under two main solutions – statutory payment right and the right in case of non-payment. In their report one table has provided at glance view on most famous countries SOP Act and also enclosed in Appendix E for further reference.

Adjudication is a part and partial of SOP Act and most of countries' Act play significant role on the process. Cheung and Wong (2010) confirmed that certain countries' SOP Act has different play as per Table – 5.2 below.

Table – 5.2: Legislation related to compulsory adjudication in different countries/ regions

| Location  | United Kingdom   | New Zealand   | Singapore   | Australia-New South Wales, Victoria, Queensland        |
|---|--|---|---|--|
| Legislation   | The Housing Grants, Construction and Regeneration Act 1996 | Construction Contracts Act 2002                           | Building and Construction Industry Security of Payment Act 2004 | NSW Act 2002, Victoria Act 2002, Queensland Act 2004   |
| Time for decisions  | 28 calendar days (or subject to agreement both parties)    | 20-30 working days (or subject to agreement both parties) | 7-14 working days (or subject to agreement both parties)        | 10 working days (or subject to agreement both parties) |
| Restrict the right of adjudication in relation to payment only? | No   | No  | Yes   | Yes  |

Source: Cheung and Wong (2010)

Chapter 26.9.7 of Singapore SOP Act 2004 confirms that how the SOP had been established.

*Preceding the introduction of the Building and Construction Industry Security for Payment Act 2004 (“the Act”) in Singapore, legislation in other Commonwealth countries was studied and considered, including the United Kingdom’s Housing Grants, Construction and Regeneration Act 1996, New South Wales Building and Construction Industry Security of Payment Act 1999, the Building and Construction Industry Security of Payment Act 2002 of Victoria, and New Zealand’s Construction Contracts Act 2002. The Act that was eventually passed incorporated most of the key features of the New South Wales Act and some elements of the rest, with several important modifications that took into account local concerns and circumstances.*

Further, Singapore has produced a document by naming of ‘Building and Construction Industry Security of Payment Act 2004 Information Kit’ and purpose explained in disclaimer as outline the basic rights and obligations arising under the Act (The content of book is enclosed in Appendix F).

The UK SOP Act 1996 had been amended on 2009 as amended by sections 138 to 145 of part 8 of the Local Democracy, Economic Development and Construction Act 2009 (Trowers, 2011).

Other than the above explanation the legislation in Sri Lanka also contains the basic requirements of SOP concept as per newly enacted CID Act no 33 of 2014. The important message is that the quoted definitions are almost same as part of the Australian SOP Act and comparison is in Appendices B & C.

### **5.3 Recommendations**

According to the present government's policy plan for the construction industry, the Megapolis Development under the Ministry of Megapolis and Western Development is expected to create a Sustainable Development and explain their strategies under the Sound Economic Path (Megapolis, 2016), i.e. 'the government wants to strive to create an environment and policy framework that is attractive and conducive for business and investment' (WRMPP, 2016).

Murdoch and Hughes (2008) stated that construction contract problems to be approached in a rational way and each professional discipline likes to focus upon its own contribution not only for service request parties but also society at large.

Silverman (2008) confirmed that qualitative research allow rich descriptions and an opportunity for practitioners to make evaluative judgments about their own practices and experiment with the adoption of new approaches described in the research findings (p.369).

Finally, this research finds outline against SOP concept which would summarized for recommendation as follows:

- i. The rational solutions were segregated the Contact Administration path Legal approach (once fail first part the second part starts). The Security of Payment (SOP) concept is combined both part while strongly back by the particular country's legislation since beginning of any construction contracts.
- ii. It (SOP concept) allows the expert's third party as an Adjudicator to involve and resolve any construction disputes at the time of forming of contract to until discharge of obligations on contract under the delegated power from particular country's law and not when the dispute arise.

- iii. The SOP concept is backed by the law of the country though and beauty is that Adjudication in the concept allows a ‘party autonomy’ in dispute resolution which would be added benefit to the any society.
- iv. Another prime benefit of this concept would facilitate to develop further on Sri Lankan jurisdiction to cater the strong legal application in to the commercial contracts in the industry.

Hence, SOP concept would be proposed as a potential solution for payment disputes in construction industry in Sri Lanka. There is a pressing need to show how the practices of qualitative research can help change the world in positive ways (Denzin & Lincoln, 2006).

With this understanding the researcher would propose the following further studies for the interesting parties. The findings are reliable and good for decision makers as suggested by Eisenberg (as cited in Cheung & Pang, 2014) that “a decision maker will only evaluate all possible options if the cost of searching and possessing information are zero and human information possessing capabilities are perfect”.

#### **5.4 Further Studies**

The findings were established that SOP concept is potential solution for payment disputes in construction industry in Sri Lanka and further studies can be conducted in following areas.

- i. The drafting of SOP concept is still left out and further researches can be initiated in association with this research.
- ii. An adjudication decisions under SOP concept on payment disputes were challenged in many countries and cases were set-aside by courts. This is one of major drawback on this concept and finding out of those reasons and provide solution(s) on them can be another area under further studies.

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- (5) *Brightside Mechanical and Electrical Services Group Ltd v Hyundai Engineering and Construction Co Ltd* (1988) SLR 186
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## **APPENDIX – A: INTERVIEW RECORD FORMS (Type A)**

**(Professionals – Contract Administrators/ legal advisors/professional institution)**

### **GENERAL INFORMATION:**

- a) Name of the Organization: .....
- b) Name of the Interviewee: .....
- c) Designation: .....
- d) Experience: .....
- e) Date: ..... time: ..... location: .....

### **GENERAL INTRODUCTION:**

- a) **Appendix – A is a record of the interview carry out by me with an objective to collect primary data for my research for the MSc in Construction Law and Dispute Resolution degree programme in University of Moratuwa**

- b) **Research title:**

**The payment dispute in construction contracts in Sri Lanka and potential scheme for solution i.e. “Security of Payment (SOP)”**

- c) **Research objectives:**

- Having selected ‘payment as a dispute’, identify its’ main constrains and analyze the inefficiency in the current practices.
- Discuss approach adopted by other countries to payment dispute, namely ‘Security of Payment (SOP)’ scheme and review the sources of initiation, evolution of the scheme.

- Identify current status of the payment dispute in Sri Lanka and evaluate the existing legal system and prevailing market factors in Sri Lanka (gaps and barriers) to introduce a SOP concept to Sri Lanka.
- Finally, propose SOP concept on the evaluation of other countries practices, and address to selected avenue (regulatory bodies, educational and professional institutions) for initiation of the SOP as potential solution for payment issue.

**d) Interview Questions:**

**Question – 1:**

There are mainly two categories of mechanism to resolve a payment issues in the construction contracts by all over the countries including Sri Lanka.

- i) **First approach – During Contract administration**  
(Interpretation of the provisions in the particular contract)
- ii) **Second approach - Legal application**  
(Applying the legal principles and rules developed by courts/tribunals)

Do you agree? If yes, what is your experience in;

Quantity/quality for item (i): .....

Quantity/quality for item (ii): .....

Are there any other approaches adopted? If yes, please comment on the approach:

.....  
 .....  
 .....  
 .....  
 .....

**Question – 2:**

Do you believe that reason for payment dispute arises due to non-participation of lawyers during preparation of Tender Document and Contract Document?

- Tender procedure govern by standard document ‘instruction to bidders’ (ICTAD)
- Construction govern by standard document ‘conditions of contract’ (ICTAD/FIDIC)
- Standard forms and specimen

Only professional does to arrange procedure and all of above documents are tested by legal draftsmen to practice as standard documents for any project.

**Question – 3:**

Most of projects perform with the properly made contract. However, payment disputes arise. Do you agree that this disputes appear due to failing to perform the provisions in the contract by either party?

**Question – 4:**

Do you agree that main contractors perform the client requested works largely with the help of sub-contractors and suppliers’ participation under the domestic category? The main contractor does selection, appointment, planning the work including keeping responsibility for the works. Then domestic parties would suffer payment delay and badly treating by ‘pay when pay’ provisions in the particular subcontract agreement by main contractor. What would be impact of this to the industry?



**Question – 5:**

Many countries (UK, Australia, New Zealand, Singapore and Malaysia) have adopted legislation commonly referred to as “Security of Payment (SOP) scheme” to resolve the payment issues as most of construction contracts fail to honor provisions set out by contract parties. solution for payment issues are addressed beyond the contract and current trend is a legislative application which can overrule the construction contract made by parties and this scheme is named as ‘Security of Payment – (SOP)’ in most of countries like.

Are you aware a SOP scheme?

**Question – 6:**

How is the SOP scheme applied and what are the practical difficulties faced in applying the said legislation?

**Question – 7:**

Do you believe that SOP legislation would facilitate resolution of the payment issues in the construction industry in Sri Lanka?

**Question – 8:**

The Literature Review found that SOP application has three main tiers as introduction; adjudication process; and manner in which the Act would be applicable.

Would you recommend this categorization?

**Question – 9:**

Would you accept that these three tiers are key criteria to establish a SOP concept for Sri Lanka?

**Question – 10:**

Does other countries approach need to be considered to develop the legislation for Sri Lanka? If yes, what are they?

**Question – 11:**

The Literature Review found that newly enacted Construction Industry Development (CID) Act No 33 of 2014 in Sri Lanka has certain provisions which can be in common SOP scheme i.e.

- Certain definitions which are similarity to the first tier in the SOP scheme (compare to the Australian Act)
- Concept of Adjudication process which is similarity to the second tier in the SOP scheme.

Compare to the other countries' SOP Act. Would you agree that this development helps to introduce SOP in Sri Lanka?

**Question – 12:**

The barrier to introduce SOP, beyond the CID Act 33 of 2014 is the Government. What is your comment?

**Question – 13:**

Are you involved during the drafting of CID Act 33 of 2014 and was there any attempt to introduce SOP concept?

**Question – 14:**

The key criteria to introduce a SOP are listed in the attached schedule. What is your opinion?

**Question – 15:**

Most of countries' SOP Act was criticized due to the failure of the Adjudicator's role. What are the precautions that you would propose to overcome this situation?

**Question – 16:**

What is your opinion on Canadian/US approach on 'pay when paid' approach?

**Question – 17:**

Could you kindly propose any other necessary things which need to address for this research.

## APPENDIX – A: INTERVIEW RECORD FORMS (Type B)

**(Supply Chain Management parties – Main contractors/Subcontractors/  
Suppliers)**

### GENERAL INFORMATION:

- a) Name of the Organization: .....
- b) Name of the Interviewee: .....
- c) Designation: .....
- d) Telephone/One to one: .....
- e) Date: ..... time: ..... location: .....

### GENERAL INTRODUCTION:

- a) **Appendix – A is a record of the interview carry out by me with an objective to collect primary data for my research for the MSc in Construction Law and Dispute Resolution degree programme in University of Moratuwa**
  
- b) **Research title:**  
**The payment dispute in construction contracts in Sri Lanka and potential scheme for solution i.e. “Security of Payment (SOP)”**
  
- c) **Research objectives:**
  - Having selected ‘payment as a dispute’, identify its’ main constrains and analyze the inefficiency in the current practices.
  
  - Discuss approach adopted by other countries to payment dispute, namely ‘Security of Payment (SOP)’ scheme and review the sources of initiation, evolution of the scheme.

- Identify current status of the payment dispute in Sri Lanka and evaluate the existing legal system and prevailing market factors in Sri Lanka (gaps and barriers) to introduce a SOP concept to Sri Lanka.
- Finally, propose SOP concept on the evaluation of other countries practices, and address to selected avenue (regulatory bodies, educational and professional institutions) for initiation of the SOP as potential solution for payment issue.

**d) Interview Questions:**

**Question – 1:**

Do you have experience on payment disputes in your construction contracts (projects)?

**Question – 2:**

Who are categories of payment delay (Employer of the contract/Main Contractor/Subcontractor)?

**Question – 3:**

What are reasons behind the disputes?

**Question – 4:**

Were payment dispute resolves either on contract administration path or legal approach?

**Question – 5:**

How long did it takes to settle?

**Question – 6:**

Do you have experience on ‘pay when pay’ provisions to any of your agreement and how did effect on payment?

**Question – 7:**

Do you have any situation where the main contractor got payment for the executed work and not paying to you?

**Question – 8:**

If you suffer with payment delay from your pay master did you pay any p arty behind you?

**Question – 9:**

Do you have any suggestion to avoid this payment dispute?

**Question – 10:**

Who are parties that you are mainly deal Direct Employer/main contractor/subcontractor/ Sub-subcontractor?

**Question – 11:**

Are you aware of a SOP scheme which help to resolve the dispute in payment?

**APPENDIX – B: SOP COMPARISON (FIRST TIRE)**

|   |   |
|---|---|
| Building and Construction Industry Security of Payment Act 2009 - South Australia   | CID Act no. 33 of year 2014   |
| 5 (1) In this Act -<br>Definition of construction work  | 67 –<br>Interpretation  |
| construction work means any of the following work:  | "construction work" means, operations of any of the following descriptions -  |
| (a) the construction, alteration, repair, restoration, maintenance, extension, demolition or dismantling of buildings or structures forming, or to form, part of land (whether permanent or not);   | (a) construction, alteration, repair, maintenance, extension, demolition or dismantling of buildings, or structures forming, or to form part of the land (whether permanent or not);  |
| (b) the construction, alteration, repair, restoration, maintenance, extension, demolition or dismantling of works forming, or to form, part of land, including walls, road works, power-lines, telecommunication apparatus, aircraft runways, docks and harbors, railways, inland waterways, pipelines, reservoirs, water mains, wells, sewers, industrial plant and installations for purposes of land drainage or coast protection; | (b) construction, alteration, repair, maintenance, extension, demolition or dismantling of buildings, or structures forming, or to form part of the land, including (without prejudice to the foregoing) walls, road works, power-lines, telecommunication apparatus, aircraft runways, docks and harbors, roads, railways, inland waterways, pipelines, reservoirs, water-mains, wells, sewers, water supply and drainage, industrial plant and installations for purposes of coast protection or defense; |
| (c) the installation in any building, structure or works of fittings forming, or to form, part of land, including heating, lighting, air-conditioning, ventilation, power supply, drainage, sanitation, water supply, fire protection, security and communications systems;   | (c) installation in any building or structure of fittings forming part of the land, including (without prejudice to the foregoing) systems of heating, lighting, air-conditioning, ventilation, power supply, drainage, sanitation, water supply or fire protection or security or communications systems;  |
| (d) the external or internal cleaning of buildings, structures and works, so far as it is carried out in the course of their construction, alteration, repair, restoration, maintenance or extension;   | (d) external or internal cleaning of buildings and structures, so far as carried out in the course of the construction, alteration, repair, extension or restoration;   |

## SOP COMPARISON (FIRST TIRE) CONT'D

|  |   |
|--|---|
| <p>(e) any operation that forms an integral part of, or is preparatory to or is for rendering complete, work of the kind referred to in paragraph (a), (b) or (c), including—</p> <p>(i) site clearance, earth-moving, excavation, tunneling and boring; and</p> <p>(ii) the laying of foundations; and</p> <p>(iii) the erection, maintenance or dismantling of fences or scaffolding; and</p> <p>(iv) the prefabrication of components to form part of any building, structure or works, whether carried out on-site or off-site; and</p> <p>(v) site restoration, landscaping and the provision of roadways and other access works;</p> | <p>(e) operations which form an integral part of, or are preparatory to, or are for rendering complete, such operations as are previously described in this section, including site clearance, earthmoving, excavation, tunneling and boring, laying if foundations, erection, maintenance or dismantling of scaffolding, site restoration, landscaping and the provision of roadways and other access works;</p>     |
| <p>(f) the painting or decorating of the internal or external surfaces of any building, structure or works;</p>  | <p>(f) painting of decorating the internal or external surfaces of any building or structure;</p>   |
| <p>(g) other work of a kind prescribed by the regulations for the purposes of this subsection.</p>   |   |
|  | <p>"construction contract" means an agreement with a person or entity for any of the following:-</p>  |
|  | <p>(a) the carrying out of construction work;</p>   |
|  | <p>(b) arranging for the carrying out of construction work by others, whether under sub-contract or otherwise to such person or the entity, as the case may be;</p>   |
|  | <p>(c) providing his own labour or labour owned by the entity or the labour of others, for carrying out of construction work;</p>   |
|  | <p>"identified Construction works" means -</p>  |
|  | <p>(a) all buildings, structures, or any building or structure or landscape which consists of facilities and amenities for public use exceeding in value rupees ten million or such higher value as may be prescribed by the Minister, from time to time;</p> <p>And</p> <p>(b) all buildings, structures or landscapes which need approval of environmental, geological and cultural heritage regulatory bodies.</p> |



**APPENDIX – C: SOP COMPARISON (SECOND TIRE)**

|   |   |
|---|---|
| SOP ACT IN UK   | CID Act No. 33 of 2014  |
| Section 108:<br>Introduction of new dispute resolution method as ‘Adjudicator’  | Part IX, Clause 50:<br>Settlement of disputes   |
| The Adjudication as new method which provide to discuss the issues during the course of the work that can either be accepted as final or reopened in litigation or arbitration if either party still feels aggrieved. So that ss 108 confers a right on the parties to refer a dispute for adjudication. As with the payment provisions, the Act stipulates various provisions that the contract should contain and, if it does not, the scheme for Construction Contracts applies. | If the parties so desire any dispute relating to a contract for construction works, if it is not provided for in the contract, may be settled through conciliation or mediation by the Authority.   |
|   | Part IX, Clause 51:<br>Right to refer for Adjudication  |
|   | (1) A party to any contract relating to an identified construction work, if unable to settle any dispute by conciliation or mediation by the Authority, may refer such dispute for adjudication.  |
|   | (2) The procedure for adjudication of any dispute under this section shall be as prescribed.  |
|   | For the purpose of this section, “dispute” includes any difference of opinion between the parties to an identified construction work.   |
|   | Part IX, Clause 52:<br>Register for Adjudicators  |
|   | 52. (1) The Authority shall maintain a Register of Adjudicators who are competent to adjudicate disputes relating to any contract of construction works in the form and manner as may be determined by the rules made by the Authority. The Register of Adjudicators shall be available for inspection free of charge at the office of the Authority. |
|   | (2) The procedure for registration of such adjudicators and renewal of such registration shall be done according to the procedure as may be prescribed.   |

## APPENDIX – D: BENEFITS OF DBS

- It is suggested that DBs have the following **dispute prevention benefits**:
  - They tend to promote bilateral agreement;
  - They facilitate positive relations between the contracting parties;
  - They facilitate open communications;
  - They facilitate trust and cooperation;
  - they minimise aggregation of claims until late in or at the conclusion of the project;
  - they minimize contractual posturing;
  - they encourage identification, evaluation and dealing with claims in a prompt, business-like manner; and
  - they focus on early identification and analysis, and prompt resolution of issues which could fester into disputes
  
- It is suggested that DBs have the following **dispute resolution benefits**:
  - They have a high resolution rate for disputes referred to them;
  - They provide an impartial forum in which each contracting party can present its case and “have its day in court”;
  - They provide an informal and rational basis for resolution of a dispute which can provide political cover for personnel in the contracting parties;
  - The parties are normally predisposed to DB proceedings, because of their familiarity with the process, its informality and their respect for the DB members
  - DBs reduce transactional costs, both legal fees and consulting fees;
  - DBs reduce lost productivity time by enabling dispute resolution in "real time";
  - DBs produce better informed decisions in minimum time because of their intimate familiarity with the contract, the project and the participants; and
  - Tenderers may submit lower bids because of a lower bid premium for the risk of disputes

➤ **Reasons for the high success rate of DBs**

- DBs provide an impartial, informed, rational mechanism for resolving issues **quickly**
- DB members have knowledge and experience with:
  - The relevant design and construction issues;
  - Interpretation and application of contract documents;
  - The general process of resolving disputes; and
  - A track record with the **specific** project at-hand
- Both parties are **favourably disposed** to accept the DRB's recommendations or not dispute the DAB's determinations since the parties themselves have selected and approved the particular Board members, and have confidence in and respect them.
- The parties themselves select or approve all the DBmembers, and have confidence in their skills and experience as facilitators and dispute resolvers.
- The DB process is **cost effective** when compared with formal arbitration and litigation, especially with respect to **time**.
- Disputed matters can frequently be docketed, heard, recommended and resolved within the time it may take to select an arbitration panel or file a statement of claim in court.
- Issues are heard by the DB **just after** an impasse is reached whilst the facts and circumstances are still **fresh** in the minds of the participants. Thus, better informed resolutions are possible since eyewitnesses are still available, and the DB can actually **see** the problem and its impacts, if any, in the field.
- DB hearings are held in real-time and transactional costs are there by **minimized**.
- Expensive and time consuming legal and consultant expenses are reduced if not eliminated.
- Importantly to the Employer and Contractor, internal management time and associated costs are greatly reduced or done away with
- The construction industry recognizes and rewards Employers that use fair and expeditious contracting practices. The rewards come in the form of:
  - Lower bids;
  - More bids; and
  - **Contingency** bidding costs are reduced if the potential for expensive disputes are eliminated or significantly reduced.