

FACTORS AFFECTING THE PREPARATION OF THE CONSTRUCTION
WORK PROGRAMME

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Dedicated to...

NUR AISHA ALIFA,

*My beautiful daughter who has shared the many uncertainties, challenges and sacrifices
and for her mama spending so much time away from her for working and completing on
this dissertation.*

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In The Name of Allah, the Beneficent, the Merciful

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ABSTRACT

Work programme can be valuable management tool that allows the contractor to use resources efficiently and provides advance notice of situations that may cause the project to be delayed. It can also be an important tool for evaluation and proving delay claims. A previous study revealed that poor factual evidence and flaws in claim such as presenting a good and proper work programme are the principal facts leading to delays construction claims. Therefore, the objectives of this research are (1) To identify the factors that affecting the preparation of better construction work programme; and (2) To determine the approaches that can improve in preparing a better construction work programme. Comprehensive literature review has been conducted to gather the information on the factors affecting the preparation of construction work schedule followed by conducting structured interview session with the project personnel who has been working in the industry for 20 years and more as a main tool to gain data to establish the affecting factors. The data attained were analyzed these factors were divided into four (4) main categories which were project specific factors, project management, working condition and external environment related factors. Hence, all respondent are in their opinion that complexity, size, type, nature of the construction project, identifying the critical activities, good relationship, good coordination, good leadership as well as scope of nature of the work are the affecting factors in preparing the construction work programme. In conclusion, the study also identified recommendations that can be used by the project participants in order to prepare effective and good construction work schedule in the local construction industry.

ABSTRAK

Perancangan kerja boleh dijadikan sebagai alat perancangan yang berguna kerana ia membolehkan kontraktor untuk menguruskan sumber secara efisien dan menyediakan satu notis awalan berkenaan situasi yang mungkin boleh menyebabkan sesebuah projek itu terlewat. Perancangan kerja juga amat berguna untuk penilaian dan pembuktian bagi tuntutan kelewatan. Kajian yang telah dijalankan sebelum ini menunjukkan bahawa kurangnya pembuktian dalam tuntutan seperti menyediakan sebuah perancangan kerja yang bagus adalah fakta utama yang mengakibatkan kelewatan tuntutan kerja. Kajian ini bertujuan untuk mengenapasti (1) faktor faktor yang mempengaruhi dalam penyediaan perancangan kerja dan juga (2) mengenalpasti pendekatan yang boleh diambil sebagai langkah bagi tujuan penambahbaikan dalam penyediaan perancangan kerja. Kajian literatur telah dilaksanakan secara komprehensif untuk mengumpul maklumat berkenaan faktor yang mempengaruhi penyediaan perancangan kerja. Seterusnya temuramah berstruktur dilaksanakan terhadap personnel binaan yang telah mempunyai pengalaman kerja selama 20 tahun atau lebih. Empat (4) kategori utama yang mempengaruhi dalam penyediaan perancangan kerja adalah faktor spesifik projek, pengurusan projek, keadaan kerja dan faktor luaran. Para responden berpendapat, kerumitan, saiz, jenis, corak projek, pengenalan aktiviti kritikal, hubungan kerjasama yang baik antara pihak pihak terlibat, koordinasi, faktor kepimpinan, begitu juga dengan skop bidang kerja merupakan faktor faktor yang mempengaruhi di dalam penyediaan perancangan kerja. Kajian ini juga dijalankan bertujuan untuk mengenalpasti pendekatan yang seharusnya diambil bagi tujuan penambahbaikan perancangan kerja.

TABLE OF CONTENTS

| CHAPTER | TITLE | PAGE |
|----------|---------------------------------------|------|
| | DECLARATION | ii |
| | DEDICATION | iii |
| | ACKNOWLEDGEMENTS | iv |
| | ABSTRACT | v |
| | ABSTRAK | vi |
| | TABLE OF CONTENTS | vii |
| | LIST OF TABLES | xi |
| | LIST OF FIGURES | xii |
| | LIST OF ABBREVIATIONS | xiii |
| | LIST OF APPENDICES | xiv |
| | LIST OF CASES | xv |
| 1 | INTRODUCTION | 1 |
| | 1.1 Introduction | 1 |
| | 1.2 Background of Study | 1 |
| | 1.3 Research Problem | 2 |
| | 1.4 Research Question | 3 |
| | 1.5 Objective | 3 |
| | 1.6 Scope and Limitation of The Study | 4 |
| | 1.7 Significance of Study | 4 |
| | 1.8 Research Methodology | 5 |

| | | |
|----------|--|----|
| 2 | WORK PROGRAMME IN CONSTRUCTION CONTRACT | |
| 2.0 | Introduction | 6 |
| 2.1 | Definition | 6 |
| 2.2 | Proceeding Regularly and Diligently | 7 |
| 2.3 | Submission of Work Programme | 7 |
| 2.4 | The Contribution of Work Programme | 8 |
| 2.5 | Purpose of Having Work Programme | 8 |
| 2.6 | Responsibilities of the Contracting Parties | 9 |
| | 2.6.1 Client | 9 |
| | 2.6.2 Contractor | 9 |
| 2.7 | Characteristic of Proper Work Programme | 11 |
| | 2.7.1 A Complete Schedule | 11 |
| | 2.7.2 A Full Term Schedule | 11 |
| | 2.7.3 Meets the Contractual Requirement/Milestones | 12 |
| | 2.7.4 Indicate How The Project is Suppose To Be construct | 12 |
| | 2.7.5 Activity Duration Are reasonable | 12 |
| | 2.7.6 Activity Relationship Are All Defined | 13 |
| | 2.7.7 The critical Path Makes Sense | 13 |
| | 2.7.8 It Considers Procurement and Material and Equipments Deliveries | 13 |
| | 2.7.9 It Is Resources Loaded | 14 |
| 2.8 | Factors to Be Taken in Preparation of Work Programme | 14 |
| 2.9 | Approaches for improvement in the Preparation for the Effective Work Programme | 17 |
| | 2.9.1 Explain the Project Plan | 17 |
| | 2.9.2 Defines Roles and Responsibilities | 18 |
| | 2.9.3 Hold A Kick Off Meeting | 18 |
| | 2.9.4 Develop a Scope Material | 18 |
| | 2.9.5 Develop Scope Baseline | 18 |
| | 2.9.6 Develop The Work Programme and Cost | 19 |

| | | |
|----------|--|----|
| | Baseline | |
| | 2.9.7 Create Baseline Management Plans | 19 |
| | 2.9.8 Develop the Staffing Plan | 19 |
| | 2.9.9 Project Quality and Risks | 19 |
| | 2.9.10 Communication | 20 |
| 2.10 | Types of Work Programme | 20 |
| | 2.10.1 Gantt Chart | 21 |
| | 2.10.2 Critical Path Scheduling | 23 |
| | 2.10.3 Activity Logic | 25 |
| 2.11 | Problems With Work Programme | 25 |
| 2.12 | Requirements of Successful Construction Work Programme | 26 |
| 2.13 | Conclusion | 27 |
| | | |
| 3 | RESEARCH METHODOLOGY | |
| | 3.0 Introduction | 28 |
| | 3.1 Definition | 28 |
| | 3.2 Identifying the Problem | 30 |
| | 3.3 Literature Review | 30 |
| | 3.4 Data Collection Process | 31 |
| | 3.4.1 Pilot Survey | 31 |
| | 3.4.2 Structured Interview | 31 |
| | 3.5 Data Analysis | 33 |
| | 3.5.1 Structured Interview Analysis | 33 |
| | 3.6 Writing the Report | 33 |
| | 3.7 Conclusion | 34 |

| | | |
|----------|--|----|
| 4 | DATA ANALYSIS | |
| 4.0 | Introduction | 36 |
| 4.1 | Background of The Respondent | 37 |
| 4.2 | Analysis of the Interviewed Transcript | 38 |
| 4.3 | Conclusion | 54 |
| | | |
| 5 | CONCLUSION AND RECOMMENDATION | |
| 5.0 | Introduction | 56 |
| 5.1 | Conclusion | 56 |
| 5.2 | Research Constraint's | 58 |
| 5.3 | Recommendation | 58 |
| 5.4 | Suggestion for Future Research | 59 |
| 5.5 | Conclusion | 60 |
| | | |
| | REFERENCES | 61 |
| | Appendices | 65 |

LIST OF TABLES

| TABLE NO. | TITLE | PAGE |
|------------------|---|-------------|
| 4.1 | Factors Affecting the Preparation of The Construction Work Programme | 49 |
| 4.2 | Approaches for the Improvement in The Preparation of the Effective Work Programme | 53 |

LIST OF FIGURES

| FIGURE NO. | TITLE | PAGE |
|-------------------|---|-------------|
| 1.1 | Flowchart of the Research Study | 5 |
| 2.1 | A Simple Gantt Chart | 21 |
| 2.2 | Part of A More Advance Gantt Chart | 22 |
| 2.3 | Dummy Activities in a Project Network | 24 |
| 3.1 | Flow Chart for the Research Methodology | 35 |

LIST OF ABBREVIATIONS

| | | |
|-----|---|------------------------------------|
| C.A | - | Contract Administrator |
| EOT | - | Extension of time |
| CPM | - | Critical Path Method |
| LAD | - | Liquidated and Ascertained Damages |
| S.O | - | Superintending Officer |

LIST OF APPENDICES

| APPENDIX | TITLE |
|-----------------|--|
| A | Pilot Survey Questions |
| B | Interview Questions |
| C | Raw Sample of Interview Transcript |
| D | Project Scheduling Guidelines, JKR Malaysia |

LIST OF CASES

| | |
|---|----|
| Balfour Beatty Construction Ltd v The Mayor and Burgess of the London Borough of Lambeth (2002) | 2 |
| The Royal Brompton Hospital NHS Trust v Frederick Alexander Hammond and others (2002) | 2 |
| Glenlion Cosntruction Ltd vGuiness Trust (1987) 39 BLR 89 | 8 |
| Waterlily & Company Ltd v Mackay & Anor (2012) EWHC 1773 | 8 |
| The Royal Brompton Hospital NHS Trust v Frederick Alexander Hammond and others (2002) | 25 |

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter will discuss on the background of the study. The problem statement for the study, the research question as well as the objective for the study will also be elaborated. The scope of the study, the significance of the study, research methodology and the structure of the study will be explained in this chapter.

1.2 Background of Study

As specified in the project specification, it s required that the contractor to provide a work programme showing the execution of the work. The contractor is in the responsibilities in coordinating. By this mean, work programme are required in the construction project (Kelley, 2013).

Time of completion is crucial aspect of construction contracts as their client has their own need as well to develop specific arrangement for the completion of the project on a specific date. In assisting the client to meet their project objective, work programme provision is included in most contracts. (Hinze, 2011).

In an attempt to monitor and perhaps control the progress of the contractor's works, many employers are obliged in the submission and work in accordance with detailed programme (Rajoo, 2012). The work programme is beneficial as a

management tool that allows the contractor to use resources efficiently and provides an advance notice of situations that may cause the project to be delayed, and the work programme can be an important tool for evaluation and proving delay claims (Kelley, 2013).

In *Balfour Beatty Construction Ltd v The Mayor and Burgess of the London Borough of Lambeth (2002)*, the judgement includes that the contractor should provide a valid critical path for his entitlement of EOT

In *The Royal Brompton Hospital NHS Trust v Frederick Alexander Hammond and others (2002)*, based on the judge statement, it is definitely that a critical path analysis is so much more required. It may be so plainly clear that the delays have affected the critical path which becomes tool as evidence for the contractor claiming for extension of time.

1.3 Research Problem

A study carried out by Yusuwan and Adnan (2013) revealed that poor factual evidence and flaws in claim such as presenting a good and proper work programme are the principal facts leading to delays in EOT claims.

Furthermore, the work programme prepared by the contractor is not detailed and not properly links to show the critical path. Due to this issue, when the contractor is supposedly entitles for the EOT, he may losses the entitlement just because the contractor do not properly presenting a good work programme that relates to the delay. (Othman, 2009).

Sufficient records and documents on project's progress are important for the contractor so that with the work programme it will become tools to prove the delay if it occurred. Sadly, this important matter is neglected by the contractor because they are more focusing the work on sita than the documentation itself (Idris, 2006).

Several problem associated with project scheduling are the inability to fully utilize the work programme, lack of understanding of programming technology and unable to see the importance of work programme. The absence of formal guideline also contributes to this matter in preparing the work programme. (Ibrahim et al, 2006)

Based on this statement, it is important to identify what is the factors that affect the preparation of good work programme and plus, by knowing these factors, some approaches can be determined as an improvement method and eventually it will become as a guideline in preparing a good work programme.

1.4 Research Question

This study was guided by the following question:

1. How a proper work programme will alleviate the current problem in construction claims by the contractor?
2. What is the element that contributes of good and proper work programme?
3. What are the approaches should be taken for the improvement in the preparation of good and better work programme?

1.5 Objective of The Study

The research is carried out to:

1. Identify the factors to be considered in the preparation of the work programme.

2. To determine the approaches taken as an improvement in preparing a good work programme.

1.6 Scope and limitation of the study

The scope of this study will be look into:

- a. The available construction work programme.
- b. Opinion of the construction project personnel on the affecting factors in preparing a good work programme in the locality of Kuching, Sarawak.

1.7 Significance of the study

The main sources of construction project claim are delays as well as dispute over EOT and the cost which related to it. This is due to the contractor did not properly update the work programme as work progressed (Hauer, 2014).

A good and proper work programme is important because with the work programme can become a tool to prove the entitlement of construction claims such as EOT, payment and LAD. Furthermore, it is hopefully with these factors will helps to reduce the time consume in preparing a work programme itself and helping the contractors for a successful claims.

In addition, hopefully these finding are expected to offer a significant contribution to industry player, researchers and also academic in helping them to identify the areas for further improvement.

1.8 Research Methodology

To make sure that the objective of the study is achieved, figure 1.1 outlines the methodology of the study:

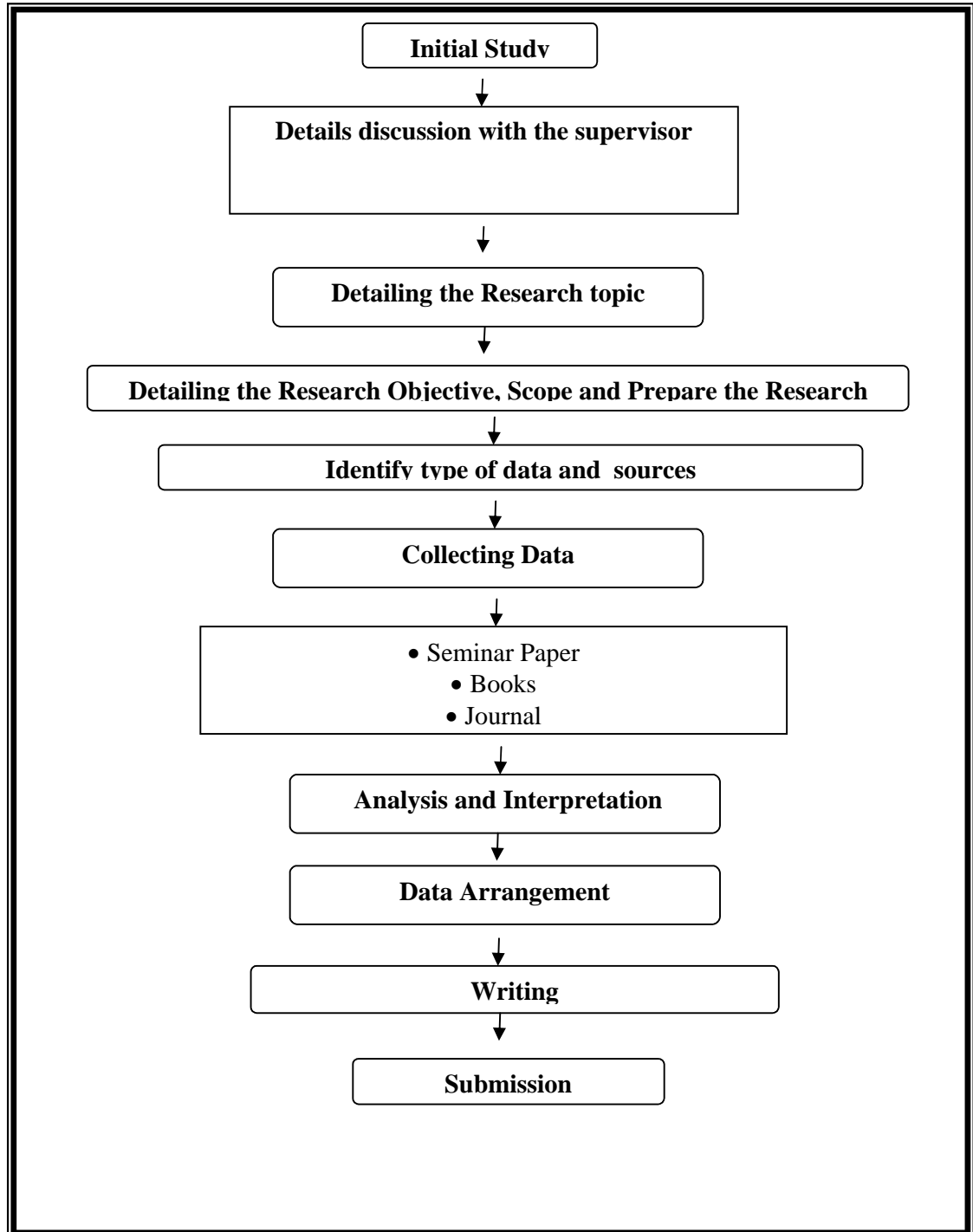


Figure 1. Flowchart of the research study

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