METHOD-RELATED CHARGES (MRC): THE COST EFFECTS WHICH RELATED TO THE CLAIMS

BY

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ABSTRACT

In construction projects, the Bill of Quantities (BQ) is used to provide a detailed description of the total value of an item and serve as a normal payment mechanism for work procured by the related parties, such as contractors. However, the Bill of Quantities (BQ) has some essential flaws, the biggest of which being that construction costs are rarely directly proportional to the quantity. The effect of this flaw may be minimal if changes in the scope of the works are few, as the difference between the contractor's costs and income will remain small. The concept of Method-related Charges (MRC) will increase the change in scope that can be accommodated. Nevertheless, friction often results when significant changes in scope or methods occur, as the contractor struggles to justify any additional entitlement and to show where his extra costs come from. This research aims to investigate the issues pertaining to the Method-related Charges (MRC). The focus of the research is on how to evaluate the cost effects of Method-related Charger (MRC) on construction and to develop measures to minimize the impact of cost related issues raised under Method-related Charges (MRC) claims. Another difficulty arises with Method-related Charges (MRC) items, which is that the Civil Engineering Standard Method of Measurement (CESMM) clause states that a Method-related Charges (MRC) does not bind the contractor to use the method defined; it is not subject to admeasurement; and is not to be increased or decreased for any change method adopted by the contractor. This research uses an explanatory paradigm approach in exploring the issue by employing a qualitative method. Data collection is comprised of interviews and document reviews that aim to investigate the issue of Method-related Charges (MRC), to evaluate the cost effects of Method-related Charges (MRC), and therefore to minimize the cost related issues in the claim of Method-related Charges (MRC). Interviews were conducted among construction practitioners and content analysis was used to analyse the data collected. Validation of the findings from this research is achieved through triangulation of interviews and document analysis. The findings from this research found that Method-related Charges (MRC) enables the contractor optionally to enter separately in the tender such non-quantity proportional charges as considered will have a significant influence on the cost of the works and for which the contractor omits to enter into Method-related Charges (MRC). The significant outcomes of this research are expected to give a new perspective on the Method-related Charges (MRC).

خلاصة البحث

في مشاريع البناء، يتم استخدام فاتورة الكميات (BQ) لتقييم قيمة الوصف التفصيلي للبند، وتكون بمثابة آلية دفع عادية لعمل تم شراؤه من قبل الأطراف ذات العلاقة، مثل المقاولين. ومع ذلك، فإن قانون الكميات (BQ) لديه بعض العيوب الأساسية، وأكبرها أن تكاليف البناء نادراً ما تتناسب طرديًا مع الكمية. وقد يكون تأثير هذا الخلل ضئيلاً إذا كانت التغييرات في نطاق الأعمال قليلة، لأن الفرق بين تكاليف المتعهد وإيراداته سيظل ضئيلاً. سيزيد مفهوم الرسوم ذات الصلة بالطريقة (MRC) التغيير في النطاق الذي يمكن استيعابه. ومع ذلك، يحدث الاحتكاك غالبًا عند حدوث تغييرات كبيرة في النطاق أو الطرق، حيث يناضل المقاول لتبرير أي استحقاق إضافي ولإيضاح مصدر تكاليفه الإضافية. يهدف هذا البحث إلى التحقيق في القضايا المتعلقة بالرسوم ذات الصلة بالطريقة (MRC). ويركز البحث على كيفية تقييم آثار التكلفة لشواحن الطرق ذات الصلة (MRC) على الإنشاء، ووضع إجراءات للحد من تأثير القضايا ذات الصلة بالتكاليف التي تثار في إطار مطالبات الرسوم ذات الصلة بالطريقة (MRC). وهناك صعوبة أخرى تنشأ مع بنود الرسوم ذات الصلة بالطرق (MRC) ، وهي أن شرط القياس الهندسي القياسي للقياس (CESMM) ينص على أن الشحنة ذات الصلة بالطريقة (MRC) لا تلزم المقاول باستخدام الطريقة المحددة؛ ولا يخضع للقبول. ولا ينبغي زيادتها أو تخفيضها لأي طريقة تغيير يعتمدها المقاول. يستخدم هذا البحث مقاربة نموذجية توضيحية في استكشاف المشكلة من خلال استخدام طريقة نوعية. ويتألف جمع البيانات من المقابلات ومراجعات المستندات التي تهدف إلى التحقيق في مسألة الرسوم ذات الصلة بالطرق (MRC)، لتقييم آثار التكلفة للرسوم ذات الصلة بالطريقة (MRC)، وبالتالي لتقليل المشكلات المتعلقة بالتكلفة إلى الحد الأدنى في المطالبة الرسوم المتعلقة بالطريقة (MRC). لقد أجريت المقابلات بين ممارسي البناء وتم استخدام تحليل المحتوى لتحليل البيانات التي تم جمعها. يتحقق التحقق من النتائج من هذا البحث من خلال تثليث المقابلات وتحليل الوثيقة. وأسفرت نتائج هذا البحث أن الرسوم ذات الصلة بالطريقة (MRC) تمكن المقاول اختياريا من الدخول بشكل منفصل في المناقصة مثل الرسوم النسبية غير الكمية كما هو موضح وسيكون لها تأثير كبير على تكلفة الأعمال والتي يحذفها المقاول الدخول إلى الرسوم ذات الصلة بالطريقة (MRC). من المتوقع أن تعطي النتائج الهامة لهذا البحث نظرة جديدة على الرسوم ذات الصلة بالطريقة (MRC).

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Science in Quantity Surveying and International Procurement

……..
Mohammad Saiful Nizam Mohd Suhaimi
Supervisor

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Science in Quantity Surveying and International Procurement

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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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This dissertation is dedicated to my beloved parents and my brothers and sisters and to my wife and my daughter's Nur Qistina binti Norazmi.

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LIST OF ABBREVIATION

BQ	Bills of Quantities
CESMM	Civil Engineering Standard Method of Measurement
CIDB	Construction Industry Development Board Malaysia
MRC	Method-related Charges
MyCESMM	Malaysian Civil Engineering Standard Method of Measurement
PWD	Public Work Department
TRC	Time-related Charge
FC	Fixed Charge

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The construction industry is among the industry that is listed as a major contributor to the development of country's economy. The importance of the construction industry can be seen clearly through the involvement of the various industries and covers a wide range of fields. This activities include in various sectors of the construction industry (i.e.; residential, industrial, commercial, the market is, etc.) and it is not restrained to the construction phase but also the phases of pre-construction and post-construction.

According to the Construction Industry Development Board Malaysia Act 520, said the construction industry is an industry that involve in construction, installation, repair, maintenance, renewal, transfer, modify, change, dismantle or demolish (CIDB, 2004). The construction sector also comprise of planning, design, construction, changes, maintenance, repair and removal of various types of civil engineering works, structures mechanical, electrical, and other similar work. Therefore this industry includes (Ofori, 1990):

i. Companies and agencies (public and private) involved in physical construction.

ii. Provision of planning, design, coordination and management services in relation to construction.

The construction sector has also been recognized as one of the important sectors that can generate economic growth countries. The construction sector is also one of the sectors that are capable to stimulate economic growth when the country is facing a crisis of recession (Saidin, Zakaria and Ahmadon, 2006).

Through physically, construction industry output is expansive, overwhelming and costly and may not be exchanged or moved. It remains in one area and including the utilizing of distinctive materials and building components created by manufacturing industries. The output are comprises of development of different sorts of buildings, civil engineering which include the infrastructure works. In the construction industry, civil engineering works have a greater scope of the building. The construction of civil engineering works has been practiced since time immemorial for the supply of infrastructure or infrastructure to other industries. The civil engineering history has begun with a defective international history such as the construction of the pyramids, canals, tunnels, highways, dams, railway networks, supply pipes water, pipes for oil and gas and other shows that the importance of the civil engineering sector in construction industry.

Therefore it is vital to create a substantial degree of standardization in the method of preparing the Bill of Quantities (BQ) and the units used in them, especially the used of Method-related Charges (MRC) by a tenderer. A tenderer could insert in the Bill of Quantities (BQ) such items for Method-related Charges (MRC) as he may decide to cover the items of work which is relating to his intended method of finishing the works. Method-related Charges (MRC) only applies in the Civil Engineering works or condition when a projects using the Malaysian Civil Engineering Standard Method of Measurement (MyCESMM) for Malaysia construction industry or Civil

Engineering Standard Method of Measurement (CESMM) for United Kingdom construction industry. For that reason, the used of Method of Measurement (MyCESMM) or Civil Engineering Standard Method of Measurement (CESMM) only covers a wide range of civil engineering works which include roads, railways, bridges, docks and apart from that, it is also includes the structural engineering projects such as iron work, reinforced concrete work, stone work, woodworking and brick work (Saidin, Zakarian and Ahmadon, 2006).

1.2 RESEARCH PROBLEM

Construction projects are priced using a Bill of Quantities (BQ) a detailed description of the items needed to finish the product and their costs. Bills of Quantities (BQ) are an ordinary fee instrument for work obtained beneath the traditional/sequential procurement method, where the works are significantly outlined by the employer before being put out to tender by a contractor. In any case, Bills of Quantities (BQ) have a few crucial imperfections, the greatest being that development costs are once in a while specifically corresponding to amount. The impact of this imperfection may be negligible in case changes within the scope of the works are few as the contrast between the contractor's costs and wage will stay little. The concept of Method-related Charges (MRC) increases the change in scope that can be accommodated. Hence, Civil Engineering Standard Method of Measurement (CESMM) will be used as a reference for the concept of Method-related Charges (MRC). In the article "Prowriterslanka – Civil Engineering Works" (2013), it is mentioned that it is quite difficult to analyse Method-related Charges (MRC) on tender analysis reports, due to different methods/approaches by different tenderers in general items. Therefore, it can

create discrepancies on the Bill of Quantities (BQ) rates especially on the pricing aspects and claims for the contractor.

Nevertheless, friction often results when significant changes in scope or methods occur, as the contractor struggles to justify any additional entitlement and to show where his extra costs come from. The situation is not helped by the lack of programming provisions in traditional conditions of contract. The concept of payment for temporary works as set out in Civil Engineering Standard Method of Measurement (CESMM) can be called into question, as it creates potential ambiguities. The engineer may choose not to itemize any temporary works under 'specified requirements' because he leaves such works for the contractor to decide. But the contractor may maintain that the list of temporary works (such as traffic diversion, access roads and de-watering) entitles him to payment for those works on the same principles as – when an item which Civil Engineering Standard Method of Measurement (CESMM) lists for measurement is found missing – the item has to be added to a bill. To avoid this ambiguity the preamble to the bill should state that Class A items shall be measured only to the extent they are included in the contract at the time of the award; thus fixing the temporary work items measured.

Another difficulty arises with Method-related Charges (MRC) items, Civil Engineering Standard Method of Measurement (CESMM) clause state that a Method-related Charges (MRC) does not bind the contractor to use the method defined; is not subject to admeasurement; and is not to be increased or decreased for any change method adopted by the contractor (Coinloorke, 2012). But when the engineer orders a variation of some permanent work, the contractor may claim that bill rates for similar work do not apply, because the temporary works associated with that work have

changed but the method related item of charge remains fixed. Despite the Bills of Quantities (BQ) become so successful in saving duplication of efforts while tendering and basis for valuing works as work proceeds, in some circumstances, it is consider as difficult to analyse Method-related Charges (MRC) on the tender analysis reports. It is because of different methods/approaches by different tenderers in general items. As a result this can raise debatable issues concerning Method-related Charges (MRC).

1.3 RESEARCH QUESTION

The Research questions of this research are as follow:

- What are costs related issues concerning Method-related Charges (MRC) in the Bills of Quantities (BQ)?
- What are the impact/effect of the cost related issues (claim) stemming from Method-related Charges (MRC) application in Bills of Quantities (BQ)?
- What are the setbacks of Method-related Charges (MRC) application in Bills of Quantities (BQ)?
- What are the strategies to improve cost-related claim concerning Method-related Charges (MRC)?

1.4 RESEARCH OBJECTIVES

The objectives of this research are:

i. To investigate issues on the Method-related Chargers (MRC).

ii. To evaluate the cost effects of Method-related Chargers (MRC) on construction.

iii. To develop measures to minimize the cost related issues raise in the claim of Method-related Chargers (MRC).

1.5 LIMITATION OF STUDY

This study will be focusing on Method-related Charges (MRC) in the construction industry only. This report will be aimed at the construction professionals in the Malaysia construction industry. The main focus of this study is related to the Method-related Charges (MRC) in Malaysia. Therefore, Civil Engineering Standard Method of Measurement (CESMM) will be used as the references in the Malaysia construction industry especially related to the civil engineering projects.

1.6 SIGNIFICANCE OF THE STUDY

This research is mainly intended to be a reference for parties within the construction industry and others who may benefits from it. It provides information with regards to the Method-related Charges (MRC). The research eventually is expected to provide an info regarding to the cost effects of Method-related Charges (MRC) and minimizing the cost related issues in the claim of Method-related Charges (MRC).

In addition, it aims to enhance their knowledge pertaining to the civil engineering works. Therefore, various circumstances will be studied by looking into the cost effects and minimize the cost related to the Method-related Charges (MRC).

By understanding these, the contractors may be able to recognize the importance of Method-related Charges (MRC) and create awareness among the tenderers. These would be beneficial to the civil engineering works and creates opportunity to the contractor to manage the cost in a better way. Therefore, Method-related Charges (MRC) could be a strategy to manage by the contractor works and minimizing the cost related which affected the Method-related Charges (MRC).

1.7 RESEARCH FRAMEWORK

This research is comprised of five (5) chapters, where the brief description of each chapter is provided as follows:

a) Chapter 1 - Introduction

   This chapter consists of the background of study for the research, the objective of study, limitation of study and the framework of the report.

b) Chapter 2 – Literature Review

   In this chapter, the Method-related Charges (MRC) will be reviewed. Apart from that, a study of steps to be taken and challenges to be faced by the contractors towards Method-related Charges (MRC) also included in this chapter.

c) Chapter 3 – Research Methodology

This chapter is the primary step in initiating this research is by identifying the research issue. This was motivated by reading materials such as articles, journals and books. With the issue identified, the objective of study was then established i.e. the barriers including the challenges of using Method-related Charges (MRC) for the contractors.

d) Chapter 4 – Results and Analysis

This chapter analyses the results of the Method-related Charges (MRC), the issues on the Method-related Charges (MRC), evaluate the cost effects of Method-related Charges (MRC) and develop measures to minimize the cost related issues raise in the claims of Method-related Charges (MRC).

e) Chapter 5 – Discussion and Conclusion

This chapter summarizes and concludes the findings, as well as making recommendations for the potential further research.

1.8 SUMMARY

This chapter aims to give an overall view of the research topic. It provides the readers with the:

- General view on the research topic
- Brief description on the research problems
- The research question
- The objectives of the research
- The limit of the study

- The significance of the study
- The framework of the research

The subsequent chapters will be narrowing to the general matters on the Method-related Charges (MRC). Therefore on the next chapter, the author will concentrate towards the Method-related Charges (MRC) in civil engineering works and claims regarding to the Method-related Charged (MRC).