SERVICES PROVIDED BY PROJECT MANAGEMENT CONSULTANT IN MALAYSIAN CONSTRUCTION INDUSTRY

DZULKARNAEN BIN ISMAIL

A project report submitted in partial fulfilment of the requirements for the award of the degree of Master of Science (Construction Management)

Faculty of Civil Engineering
Universiti Teknologi Malaysia

OCTOBER 2005
“Almighty Allah, please give blessing to them…

My parents, my sisters, my lecturers,

my friends, my beloved,

and to all Muslims…this is for us”
ACKNOWLEDGEMENTS

Grateful thoughts and zillion thanks go to Almighty Allah (S.W.T) for giving me guidance and good health to complete the dissertation.

My thanks to Universiti Technologi MARA (UiTM) for financially supporting my study.

I would like to express my sincere gratitude to my supervisor, Ir Dr Rosli Mohd Zin, for his help, guidance and encouragement.

I am also grateful to En Ridzal bin Mohammed from Tuju Rahmat Sdn Bhd for his cooperation, patience, and contribution. My appreciation also goes to my parents (En Ismail Hashim and Pn Fatimah Ithnin) and to my sisters Marsyita, Fadzleena, and Norhashimah for believing in me. I am also very thankful to my friends Hafizah Mohd Latif, Sallehan Ismail and many others for their support, understanding and patience.

I also thank all others who have, in one way or other, given me invaluable help, assistance and advice.
ABSTRACT

Project Management Consultant (PMC) has become an important entity in the construction industry and the use of its services has increased significantly in recent years. Even though PMC concept is relatively new in Malaysia, applied only after Malaysia had successfully completed the Petronas Twin Tower Project and the KL International Airport (KLIA Project), several issues related to failure of the PMC concept have been raised by the public and government. As a result of the many PMC failures highlighted by the mainstream media, the success of completed projects handled by Project Management Consultant had been overshadowed. This study is carried out to investigate the services provided by Project Management Consultant (PMC) in the Malaysian construction industry. A framework of PMC Services that suits the local construction environment was developed from the combination of three Project Management Consultant’s Contract based on the case studied carried out. The study found that most of the services listed by the author were regarded by the respondents as “important” services and should be carried out by the Project Management Consultants. The results of the survey for the level of satisfaction on the services provided by Project Management Consultant (PMC) show that the respondents had categorized the level of satisfaction under two main factors which are satisfied and fairly conducted.
Perunding Pengurusan Projek (PMC) merupakan entiti yang penting di dalam industri pembinaan dan perkhidmatannya telah digunakan secara meluas sejak kebelakangan ini. Walaupun perkhidmatan Perunding Pengurusan Projek (PMC) masih baru di perkenalkan di Malaysia, di mana ia di gunakan secara meluas setelah kejayaan menyiapkan Projek Menara Berkembar Petronas dan Lapangan Terbang Antarabangsa Kuala Lumpur (KLIA), beberapa isu tentang kegagalan PMC telah di timbulkan khususnya oleh pihak kerajaan dan orang ramai. Kejayaan PMC menyiapkan projek-projek kerajaan telah dikaburi oleh pendedahan pihak media ke atas beberapa projek yang gagal di laksanakan oleh PMC. Kajian ini di jalankan untuk mengenalpasti perkhidmatan yang di tawarkan oleh pihak Perunding Pengurusan Pembinaan (PMC) di dalam industri pembinaan di Malaysia. Satu kerangka kerja perkhidmatan yang bersesuaian dengan industri pembinaan di Malaysia dihasilkan melalui kajian kes yang di lakukan ke atas tiga jenis kontrak yang menggunakan perkhidmatan PMC. Hasil dari kajian mendapati responden bersetuju bahawa perkhidmatan yang disenaraikan adalah penting dan perlu di tawarkan oleh pihak Perunding Pengurusan Projek (PMC). Kajian terhadap kepuasan pelanggan terhadap mutu perkhidmatan Perunding Pengurusan Projek (PMC) boleh di kategorikan kepada dua faktor utama iaitu responden berpuas hati dengan perkhidmatan PMC dan perkhidmatan yang dijalankan oleh pihak PMC adalah berpatutan.
# TABLE OF CONTENT

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td></td>
<td>i</td>
</tr>
<tr>
<td>DECLARATION</td>
<td></td>
<td>ii</td>
</tr>
<tr>
<td>DEDICATION</td>
<td></td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENT</td>
<td></td>
<td>iv</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td></td>
<td>v</td>
</tr>
<tr>
<td>ABSTRAK</td>
<td></td>
<td>vi</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td></td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td></td>
<td>xii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td></td>
<td>xiv</td>
</tr>
<tr>
<td>LIST OF APPENDICES</td>
<td></td>
<td>xv</td>
</tr>
</tbody>
</table>

1 INTRODUCTION 1

1.1 Introduction 1
1.2 Problem statement 2
1.3 Objectives of the Study 3
1.4 Significance of research 4
1.5 Scope of Research 4
1.6 Research Methodology 5
1.7 Research Strategy Chart 7
2 LITERATURE REVIEW

2.1 Introduction 8
2.2 The Malaysian Scenario 9
2.3 Definition of Project 11
2.4 Definition of Project Management 11
2.5 Project Management Consultant 12
2.6 Project Management Roles and Responsibility 14
2.7 Body of Knowledge required by Project Management Consultancy 19
2.8 Criteria for selection of Project Management Consultant 22
  2.8.1 Relevant Previous Experience 23
  2.8.2 Resources of Professional Personnel and Support Staff 24
  2.8.3 Methodology and Approach 24
2.9 Summary 26

3 PROJECT MANAGEMENT CONSULTANT SERVICES

3.1 Introduction 27
3.2 Types of Services Provided by Project Management Consultant 28
3.3 General Services Stage 30
  3.3.1 General Intent of the Agreement 30
  3.3.2 General Objectives 30
  3.3.3 Project Brief 31
  3.3.4 General Nature of Services 31
  3.3.5 Project Reports 32
  3.3.6 Cost Planning 32
  3.3.7 Time Planning 32
  3.3.8 General Organisation of the Project 33
3.3.9 Employment of Other by the Project Managers 33

3.4 Project Design and Construction Stage 33
  3.4.1 Schematic Design 33
  3.4.2 Design Development 33
  3.4.3 Contract Documentation 34
  3.4.4 Contract Administration 34
  3.4.5 Cost Planning 35
  3.4.6 Time Planning 35

3.5 Project Handover and Commissioning Stage 35
  3.5.1 Handover 35
  3.5.2 Commissioning Assistance 35
  3.5.3 Post-Construction Documentation 35
  3.5.4 Defects Liability Period 36
  3.5.5 Final Accounting 36
  3.5.6 Final Certificates 36

3.6 Factor influencing the success of management consulting projects 38
  3.6.1 Competence of consultants 39
  3.6.2 Consultation mode 41
  3.6.3 Client organization characteristics 42

3.7 Summary 46

4 METHODOLOGY 47

4.1 Introduction 47
4.2 Literature Review 48
4.3 Case Study 49
4.4 Questionnaire Survey 50
4.5 Data Analysis 51
  4.5.1 Average Index 51
6.4 Section C: Level of Satisfaction on Services Provided by PMC 92
6.5 Summary of analysis and results 100

7 CONCLUSION AND RECOMMENDATION 101
7.1 Conclusion 101
7.2 Recommendation 106

REFERENCE 107

APPENDICES 113
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE NO</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Summary of Services provided by PMC in Contract</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sample number one</td>
<td>60</td>
</tr>
<tr>
<td>5.2</td>
<td>Summary of Services provided by PMC in Contract</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sample number two</td>
<td>65</td>
</tr>
<tr>
<td>5.3</td>
<td>Summary of Services provided by PMC in Contract</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sample number three</td>
<td>70</td>
</tr>
<tr>
<td>5.6</td>
<td>Comparison of Three Consultants Contract</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>71</td>
</tr>
<tr>
<td>5.7</td>
<td>Framework of Services that should be provided by The Project Management Consultant in Malaysia</td>
<td>72</td>
</tr>
<tr>
<td>6.1</td>
<td>Type of respondent</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>75</td>
</tr>
<tr>
<td>6.2</td>
<td>Types of respondent and position in the company</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>76</td>
</tr>
<tr>
<td>6.3</td>
<td>Respondents’ position and number of construction project involved</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>78</td>
</tr>
<tr>
<td>6.4</td>
<td>Types of respondent and number of projects using PMC services</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>6.5</td>
<td>Types of respondent and types of PMC project</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>82</td>
</tr>
<tr>
<td>6.6</td>
<td>Degree of importance of services that should be provided by Project Management Consultant in</td>
<td></td>
</tr>
</tbody>
</table>
6.7 Degree of satisfaction on services provided by Project Management Consultant in Malaysian construction industry
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE NO</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Research strategy chart</td>
<td>7</td>
</tr>
<tr>
<td>2.1</td>
<td>The project manager’s role and scope of duties</td>
<td>16</td>
</tr>
<tr>
<td>2.2</td>
<td>Role of project management in representing the client</td>
<td>17</td>
</tr>
<tr>
<td>2.3</td>
<td>Body of knowledge for Project Management</td>
<td>20</td>
</tr>
<tr>
<td>2.4</td>
<td>Organizational Pattern</td>
<td>21</td>
</tr>
<tr>
<td>3.1</td>
<td>Services provided by Project Management Consultant</td>
<td>29</td>
</tr>
<tr>
<td>3.2</td>
<td>Schedule of services to be provided by Project Management Consultant</td>
<td>37</td>
</tr>
<tr>
<td>3.3</td>
<td>Physical product and service elements</td>
<td>39</td>
</tr>
<tr>
<td>3.4</td>
<td>The model of management consulting success</td>
<td>44</td>
</tr>
<tr>
<td>6.1</td>
<td>The percentage of position holds by the respondent in the organization</td>
<td>77</td>
</tr>
<tr>
<td>6.2</td>
<td>Percentage of the construction projects that the respondent had been involved in</td>
<td>79</td>
</tr>
<tr>
<td>6.3</td>
<td>Percentage of projects using services of PMC</td>
<td>81</td>
</tr>
<tr>
<td>6.4</td>
<td>Percentage of types of PMC project</td>
<td>83</td>
</tr>
<tr>
<td>6.6</td>
<td>The level of importance on the services that should be provided by PMC</td>
<td>91</td>
</tr>
<tr>
<td>6.7</td>
<td>The level of satisfaction on services provided by PMC</td>
<td>99</td>
</tr>
</tbody>
</table>
# LIST OF APPENDICES

<table>
<thead>
<tr>
<th>APPENDIX</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Questionnaire</td>
<td>113</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

1.1 Introduction

The construction industry is often known as a very highly fragmented industry with a large number of activities involving different parties and professionals such as architects, engineers, quantity surveyors, contractor teams, suppliers, financiers and others. By being a fragmented industry, management efficiency and competency in the industry is needed to gain a higher level of competitiveness. The needs for such an approach has become more important and more pronounced, not only due to the increased size and complexity of building projects but also as a result of growing participation by international contractors.

One of management solutions that has been widely used to improve efficiency of a project is through the use of Project Management Consultant (PMC) services. The use of its services has increased in every construction industry throughout the world. Even though the practice of using PMC services is new in Malaysia, more widely applied only after Malaysia had successfully completed the Petronas Twin Tower Project and the KL International Airport (KLIA Project), there are more than 100 private companies of various sizes and track records registered under the Treasury that have procured Project Management Consultancy (PMC) services since 1999.
The question is whether the services provided by PMC is adequate in ensuring that projects are completed accordingly within the budget or cheaper, are of high quality and meet the client needs. Hence, this study was carried out to investigate the services that are currently and should be provided by Project Management Consultants (PMC) in the Malaysian construction industry as well as to measure the level of satisfaction on the services provided by Project Management Consultant in the construction industry.

1.2 Problem Statement

Most individual companies and organizations, which require the Project Management Consultancy services, do not have enough resources and expertise to carry the role of PMC. By considering these factors, the government of Malaysia under the Ministry of Finance had entrusted the Project Management Consultant (PMC) to manage government projects with the intention that these projects are completed efficiently on time, within budget and of the specified quality.

However, the government’s good intention to obtain services provided by Project Management Consultants has recently raised several issues and problem that are discussed by the public and government. From the issues of computer labs and 16 “sick” schools and five community colleges with structural defects, the closing of Sultan Ismail Hospital in Johor Bahru due to fungal outbreak caused by faulty air-conditioning and the latest issue where the key Middle Ring Road in Kuala Lumpur had to be closed after cracks were found.

As a result of these issues, the government has decided to no longer use the services of PMC and reverted to the relevant agencies such as Public Work Department (PWD) and ministries to oversee new projects. Are the services provided by the Project Management Consultant as agreed in the agreement not sufficient enough? However, the issues of Project Management Consultant Firm highlighted by the media have not
been fairly delivered and have influenced the government’s decision to stop the services of PMC Firms.

Therefore, it is important for Project Management Consultants to define the services that they provide, so that their scope of work is clear in order to prevent any prejudice and misunderstanding on their services in future. It is also important for Project Management Consultants to define the scope of services they need to carry out in such circumstances due to the increased size and complexity of building projects and to be more competitive in the era of globalization. In line with this view, Morris (1994) has seen the need of project management services to be defined in the context of the increasing magnitude of projects undertaken around the world and the requirement for owners to be more competitive in their execution.

1.3 Objectives Of The Study

The main objectives of the study are as follows:-

i) To develop a framework of Services that should be provided by Project Management Consultants (PMC)

ii) To identify the type of services that should be provided by Project Management Consultants (PMC)

iii) To determine the level of satisfaction regarding the services provided by Project Management Consultants (PMC)
1.4 Significance Of Research

The Consultant groups were set up in the 1990s to help the government manage infrastructure projects. These consultancies were formed after the Works Ministry's Public Works Department was deemed to have too few engineers and inadequate expertise to handle so many diverse projects at the same time. Most are run by Bumiputra Consultant Firms and with the termination of the PMC system, many of these firms may have to close down. As a result, many professionals and the university graduates in this field will have fewer opportunities in finding a job.

Even though the problems have been caused by several parties and factors, the credibility of PMCs need to be realigned. The researcher also hopes that from the study carried out, it could provide in one way or other the necessary information and knowledge for the parties interested in providing Project Management services.

1.5 Scope Of Research

This research was carried out based on the case study and data collected from the questionnaires. The research focuses on the private and government projects using Project Management Consultant (PMC) services. It looked into the types of services provided by Project Management Consultants of the project. The study is limited to project management of construction and infrastructure projects undertaken by Project Management Consultants in Klang Valley and Putrajaya.
1.6  Research Methodology

The research methodology which consists of two distinct phases is described below:

1.6.1  Phase 1

a) Literature Review

The review included a comprehensive literature search to adequately define:-
a) Project Management Consultant (PMC)
b) services provided by Project Management Consultants (PMC)
c) factors that lead to the successful completion of management consulting projects.

b) Case Studies

Case studies of actual Project management contracts were carried out with the objective to identify the scope of services provided by Local Project Management Consultancies. The contracts which contain useful information for this study were examined. Two government projects and another two private projects were investigated. The case studies were carried out to meet the first objective of this investigation which was to identify the services that should be provided by Project Management Consultants (PMC). Four projects undertaken by both private and government firms had been selected randomly to fulfill this objective.
1.6.2 Phase 2

c) Questionnaire Survey

An industry survey was conducted on Project Management Consultants firm and clients of the firms to identify the services that the PMCs actually provide. A pilot questionnaire, drafted from the findings of literature and case studies was used prior to developing the final questionnaire. The purpose of piloting was to ensure that the questions will provide the required data, clearly and easy to understand. The questionnaire survey was divided into several major sections which were a guide to filling up the form; demographics (general information of the respondent and the organization); services provided by Project Management Consultants; and level of satisfaction on services provided by PMC.
1.7 Research Strategy Chart

The following is the research strategy chart used for this research:

![Research Strategy Chart]

Figure 1.1: Research strategy chart
REFERENCE


