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Date of birth : 23RD OCTOBER 1984

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COLLABORATIVE TEAMWORK ENVIRONMENT IN CONSTRUCTION
INDUSTRY

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Signature : 
Name of Supervisor : PM Dr Mohamad Ibrahim Mohamad
Date : 10th DECEMBER 2008

THE DEVELOPMENT OF MATRIX MEASUREMENT GUIDELINE OF
COLLABORATIVE TEAMWORK ENVIRONMENT IN CONSTRUCTION
INDUSTRY

NURDIANA BT AZMI


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

Faculty of Civil Engineering
Universiti Teknologi Malaysia

NOV 2008

STUDENT'S DECLARATION

I declare that this project report entitled “The Development of Matrix Measurement Guideline of Collaborative Teamwork Environment in Construction Industry” is the result of my own research as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature : 
Name : NURDIANA BT AZMI
Date : 10th DECEMBER 2008

Specially Dedicated To

My Parents

My beloved Father and Mother

“You encourage and done all the best for me”

My Husband

Hasnul Afzan Bin Hj Abd Manaf

“Thank you for your love and support”

My Sibling

My Brother, Mohd Reza Bin Hj Azmi,

My Little Brother, Muhammad Izzat B Hj Azmi,

& My Cuties Little Sister, Najihah Bt Hj Azmi

“You all is the best thing I have ever had in my life”

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ABSTRACT

The Collaborative Teamwork Environment (CTE) has for long been implemented into the manufacturing sector and is known to be a successful practice for the industry. In recent years, this concept has been absorbed into the construction industry whereas its effectiveness is still questionable. Hence leads to the objectives of this research which is to identify the elements of Collaborative Teamwork Environment (CTE) and how this concept is being applied or practiced in the construction industry. In order to map the achievement of the implementation of the CTE concept in the construction industry, a Matrix Measurement Guideline (MMG) was developed in this study. These objectives have been met through a series of intensive literature reviews, interviews with experts in the field and distributions of questionnaires to those involved with the construction industry. The findings obtained through this study have thus assisted in the development of the MMG. This MMG can be used as a guideline for construction companies to map their level of collaborative teamwork achievement.

ABSTRAK

Kerjasama berkumpulan telah lama digunakan di dalam sektor perindustrian dan ia telah dikenalpasti berjaya. Pada masa ini, konsep ini telah digunakan di dalam industri pembinaan tetapi masih ia masih tidaak diketahui akan keberkesanannya. Oleh itu, objektif kajian ini adalah untuk mengenalpasti elemen pergabungan kerjasama berkumpulan (Collaborative Teamwork Environment CTE) dan bagaimana konsep in telah digunakan di dalam industri pembinaan Untuk menguji tahap kejayaan konsep ini, satu kaedah matrix pengukuran (Matrix Measurement Guideline MMG) telah dibuat. Temubual dan borang kaji selidik telah dibuat bagi mencapai objektif tersebut. Hasil dari kajian ini adalah membina MMG.MMG ini akan digunakan di dalam industri pembinaan untuk mengukur tahap CTE.

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LIST OF ABBREVIATION

CTE	-	Collaborative Team work Environment
MMG	-	Matrix Measurement Guideline
ECI	-	European Construction Institute
ICT	-	Information Communication Technology

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Collaboration is the basis for bringing together the knowledge, experience and skills of multiple team members to contribute to the development of a new product more effectively than individual team members performing their narrow tasks in support of product development (Crow, 2002). Teamwork is a group of individuals working together in which the success of any individual is dependent on the success of the entire group. It is important of collaborative teamwork environment is to achieve the objective of the work which can improve the quality in relationship and the communication among team members. Maybe the collaborative teamwork environment (CTE) is the new term for the working environment concept but the basic of the concept is about the teamwork concept. Teamwork is the general term for people working in group which required the elements of communication, sharing information, collaborate, integrating together in their working environment.

The successful of the application of CTE in concept in working environment will increased the productivity to produce the better ideas, skills and to improve the quality in relationship and communication among the team members. In Malaysia, there many approaches have been introduced to encourage people working in a team especially in construction industry to working in teamwork environment. The partnering, joint venture and design and build are the examples of CTE concept. In fact, in the traditional ways which without apply the approaches, people still can improve the quality of CTE if they desire to working as team. The important element of the successful of apply the CTE is to change their behavior especially in egoism problems. However, the teamwork concept could be failed if team members were not participate, committed, egoist and trust to each others. Thus the CTE is not about the way of people to communicate and maintain their relationship but how the team members behave in the team.

1.2 Problem Statement

In construction industry, there were not only consists of client/ promoter, designer teams and contractor teams but it also includes the nominated supplier teams for complete a project. Under each of these teams, there were many of people involve in a project which have different roles and responsibility and generally they are located in different location. This factor can cause the difficulties in transfer information and communication between team members. For examples, the designer teams were consists of sub department including the civil and structure engineer department, architect department, quantity surveyor department and etc and may located at different organization. Generally, when this team was set together as a team in the project, they could not works as a team, they more to working as individual which limit to their skill and responsibility only and they will meet maybe twice per month. So it causes the limitation of information, communication and relationship among team members. As a

practice working as a team especially in construction industry which involves many parties and people will cause problems such as dissatisfaction, distrust, misunderstanding, lack of communication, short relationship and etc will always occur. Despite, team members should not stand alone but in team require all of team members to participate to work together which can share information, open communication and can maintain their relationship although they have complete the project. The development of tools such as the collocation and the application of virtual environment system especially to improve the communication and management in the organization should develop to encourage team members to work as a team.

1.3 Aim and Objectives

The aim of this study is to develop matrix measurement guideline (MMG) to measure the collaborative teamwork environment (CTE) in Malaysia construction industry. Therefore, three (3) objectives were set as follows:

1. To identify the elements of the collaborative teamwork environment (CTE),
2. To identify the CTE as practice in construction industry and,
3. To develop matrix measurement guideline to map the achievement of CTE concept in construction industry.

1.4 Scope of Study

The study is to identify the important elements of the CTE to develop the matrix measurement guideline of CTE in construction industry. The scope of this study is narrowed down to simplify the process of information gathering, so it can be analyzed within appropriate time limit. The aspects being considered are:

- 1) The areas of this study are in Kuala Lumpur, Selangor and Johor Bahru only,
- 2) The study focus on the important elements of CTE in construction industry and,
- 3) The study focus to the selected professional people involve in construction industry.

1.5 Brief Methodology

Figure 1.1 shown the methodology of this study which start from identify the aim and the objective of the project.

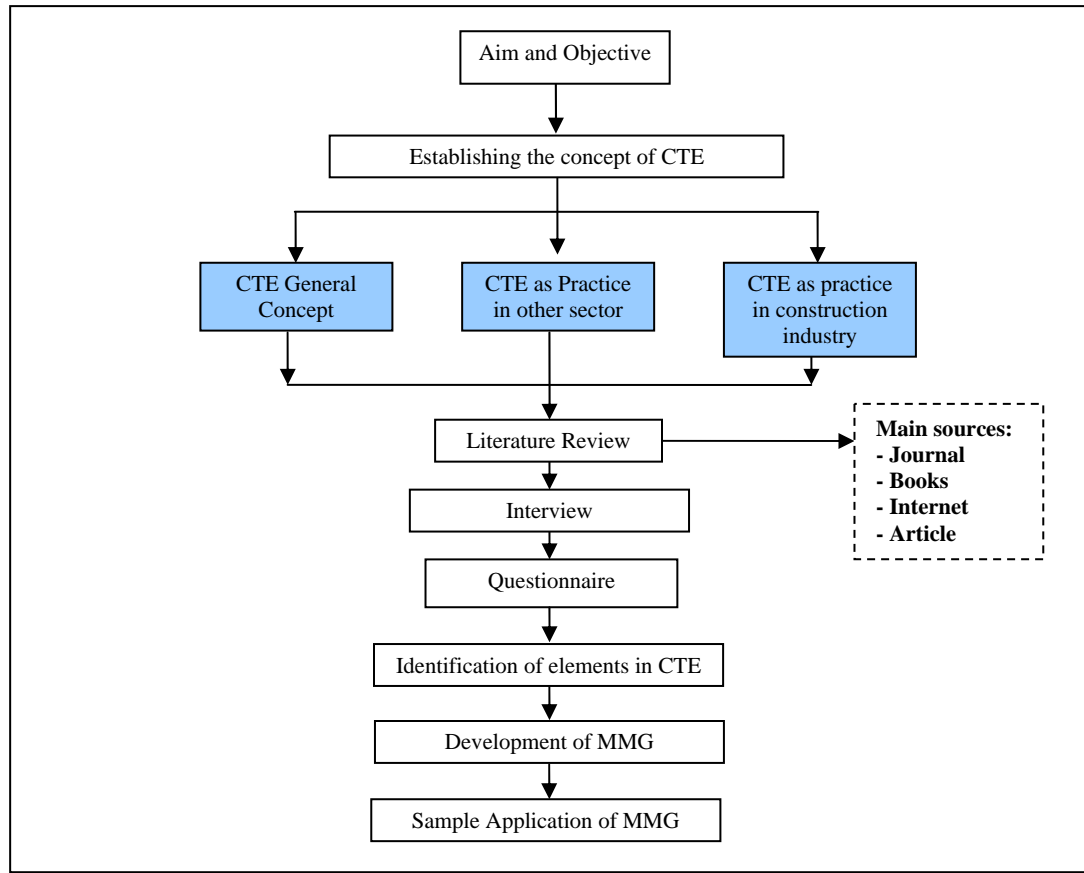


Figure 1.1: Research Methodology Flowchart