UNIVERSITI PUTRA MALAYSIA

RECURRING PROJECT OVERRUN
AND
PROJECT MANAGEMENT PROBLEMS
IN
ENGINEERING AND CONSTRUCTION INDUSTRIES

LIM CHEONG SENG

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RECURRING PROJECT OVERRUN
AND
PROJECT MANAGEMENT PROBLEMS
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ENGINEERING AND CONSTRUCTION INDUSTRIES

By

LIM CHEONG SENG

Thesis Submitted in Fulfilment of the Requirement for the
Degree of Doctor of Philosophy in the
Malaysian Graduate School of Management
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March 2001
DEDICATIONS

To God Almighty - the world’s very first Project Manager (Genesis 1:1-31; 2:1-3).
Amen.

To my beloved mother, Madam Ong Soh Hong.
RECURRING PROJECT OVERRUN
AND
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March 2001

Chairman: Professor Dr Mohd Zain Mohamed, Ph.D.

Faculty: Malaysian Graduate School of Management

The purpose of this thesis is to present an account of the research conducted in the field of project management (PM). The broad problem area is the recurring project overrun problem. The three issues of concern are (1) the perceptions of a project, PM and their success, (2) the managerial implications of project execution problems, and (3) the verification of Baker’s and Turner’s theories of project success.

The research made use of preliminary studies (unstructured interviews, case study, pilot study and structured interviews) to identify, refine and focus the issues for research. Survey research is used to derive the conclusive evidences in the Engineering and Construction (EC) industries in Malaysia.
By the use of unstructured interviews, the research identified 28 factors believed to have caused project overrun problems. Among the 28 are four that have never been identified before by previous researchers. In a way, the research showed that unstructured interview is a useful methodology in identifying new ideas.

The four new factors identified are the perceptions of individuals. The perceptions manifested in statements such as “what constitute project success may vary”, “inherited problems from earlier phases”, “management does not care” and “projects are completed anyway”.

The influence and impacts of the ambiguities surrounding a project, PM and their success, on project performance could not have come to light but for the literature survey and unstructured interviews conducted.

In the case study conducted, a list of 135 project execution problems of different type and complexity were identified. The managerial implications in terms of Henri Fayol’s management function were studied. The pilot study and structured interviews helped in confirming the issues for investigation.

The basic survey research then focused on the issues discovered in the exploratory studies for further investigation. Based on the preliminary studies theoretical frameworks and 10 hypotheses were formulated for testing.
The essential finding of the research is that conce}
The research’s verification of Baker’s theory of project success is that it would be supported at the macro level. The generalisation is that at the macro level, project success is not a function of time and cost.

The research’s verification of Turner’s theory of project success is that it would be supported at the micro level. The generalisation is that at the micro level, project success is a function of time and cost.

The research reveals that the traditional way of managing a project should be given a paradigm shift. The management of a project should be on a holistic approach, i.e. on both macro and micro levels. Project professionals should first recognise the existence of perspective differences and perceptual differences. They should be well prepared, in advance, with the methods of dealing with these perceptual issues if they occur. Hence, project professionals should be multi-skilled. In specific, they should improve their leadership and conceptual skills in handling projects.
Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Kedoktoran Falsafah

MASALAH BERULANGAN PROJEK
DAN
MASALAH PENGURUSAN PROJEK
DALAM
INDUSTRI-INDUSTRI KEJURUTERAAN DAN PEMBINA

Oleh

LIM CHEONG SENG

Mac 2001

Pengerusi: Profesor Dr Mohd. Zain Mohamed, Ph. D.
Fakulti: Pusat Pengajian Siswaah Pengurusan Malaysia

Tujuan tesis ini ialah untuk mengemukakan laporan penyelidikan yang dijalankan dalam bidang pengurusan project. Masalah umumnya ialah masalah berulangan projek. Tiga isu yang berkenaan ialah (1) tanggapan sesuatu projek, pengurusan projek dan kejayaannya, (2) implikasi pengurusan atas masalah pelaksanaan project, dan (3) pemeriksaan benar atas teori Baker dan Turner berkenaan kejayaan projek.

Penyelidikan ini menggunakan kajian permulaan (temuduga tidak berstruktur, kajian kes, kajian panduan dan temuduga berstruktur) untuk menunjuk, menyempurna dan menumpu kepada isu-isu untuk di siasat. Penyelidikan tinjauan digunakan untuk memperoleh kenyataan mutamad dalam industri-industri kejuruteraan dan pembinaan di Malaysia.

Keempat-empat faktor baru tersebut adalah tanggapan individu. Tanggapan ini adalah jelas dalam kenyataan seperti “apa yang menyebabkan kejayaan projek mungkin berubah”, “mewarisi masalah dari fasa terdahulu”, “pengurusan tidak memandang penting” dan “macam manapun projek akan disempurnakan”.

Pengaruh dan kesan daripada kekaburan yang mengelilingi sesuatu projek, pengurusan projek dan kejayaannya, ke atas prestasi projek tidak akan dinyatakan jika bukan kerana tinjauan penulisan dan temuduga tidak berstruktur yang dijalankan.

Dalam kajian kes dijalankan, sesenarai sejumlah 135 masalah pelaksanaan projek yang pelbagai jenis dan pelbagai kesulitan telah dikenalpastikan. Implikasi pengurusan berbentuk fungsi pengurusan Henri Fayol telah dikaji. Kajian panduan dan temuduga berstruktur telah mengesahkan isu-isu yang disiasat.

Kemudiannya, penyelidikan tinjauan asas bertumpukan isu-isu yang ditemui dalam kajian penjelajahan untuk siasatan mendalam. Berdasarkan rangkakerja teori kajian permulaan, 10 hipotesis telah dirumuskan untuk pemeriksaan.
Penemuan penting penyelidikan ini ialah faktor konsep mempunyai pengaruh yang besar ke atas masalah berulangan projek. Kenyataan perangkaan menunjukkan bahawa perbezaan perspektif individu boleh menimbulkan perbezaan tanggapan. Perbezaan tanggapan ini akan mempengaruhi faktor menghalang. Dan faktor menghalang ini akan menyebabkan pelbagai masalah projek. Penemuan lain penyelidikan ini adalah diringkaskan seperti berikut:

1. Tanggapan sesuatu projek adalah berasaskan perspektif (biarkan dari segi tuan punya, pemaju, kontraktor, perunding, pembekal, operator, pengguna, orang yang ada kena-mengena (atau stakeholder) atau orang yang tidak ada kena-mengena (atau bukan stakeholder).

2. Setiap individu dan perspektif mempunyai pandangan hakikat: makro atau mikro.

3. Tuan punya, pemaju, pengguna, operator, stakeholder atau bukan stakeholder, pada kebiasaannya, adalah orang yang berpandangan makro.

4. Kontraktor, pembekal dan perunding, pada kebiasaannya, adalah orang yang berpandangan mikro.

5. Pandangan makro menitikberatkan kriteria kesempurnaan dan kepuasan projek. Pada tahap kepuasan yang tinggi, kurang pertimbangan akan diberi ke atas kekurangan kesempurnaan dalam pelaksanaan projek dan lebih tingginya kejayaan projek diertikan.

6. Pandangan mikro menitikberatkan kriteria kesempurnaan projek seperti masa, kos, kualiti, prestasi dan keselamatan.
7. Seseorang individu boleh menukar perspektifnya dan juga segi pandangannya.

Pemeriksaan penyelidikan ini atas benarinya teori Baker berkenaan kejayaan projek menunjukkan bahawa ianya disokong pada peringkat makro. Kenyataan umumnya ialah pada peringkat makro, kejayaan projek tidak berfungsi masa dan kos.

Pemeriksaan penyelidikan ini atas benarinya teori Turner berkenaan kejayaan projek menunjukkan bahawa ianya disokong pada peringkat mikro. Kenyataan umumnya ialah pada peringkat mikro, kejayaan projek adalah berfungsi masa dan kos.

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My utmost appreciation to all these people mentioned above. They have made this research study an interesting, stimulating and worthwhile learning experience.
I certify that an Examination Committee met on 20th June 2000 to conduct the final examination of Lim Cheong Seng on his Doctor of Philosophy thesis entitled “Recurring Project Overrun and Project Management Problems in Engineering and Construction Industries” in accordance with Universiti Petanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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Date: 23/04/01

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This thesis submitted to Senate of Universiti Putra Malaysia has been accepted as
fulfilment of the requirement for the degree of Doctor of Philosophy.

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Date: 25/04/01
DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

Lim Cheong Seng

Date: 6-4-2006
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