

EMERGENT TREND OF MALAYSIAN
CONSTRUCTION INDUSTRY :
THE RISE OF FACILITIES MANAGEMENT

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To my beloved husband and kids, I love you very much. You are my soul.
To my beloved mother and father, you are queen of my heart. Thank you so much
for your full commitment and understanding.

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In the name of Allah the Most Benevolent and Most Merciful.

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ABSTRACT

Facility management is an upcoming trend in Malaysian construction industry. It is all about improving the operational quality, adding value to organisation and minimising the exposure to risk. It creates business opportunities, improve business relation but most of all it generates significant business returns. This research provides essential concept on the application of facility management (FM) in general and specific emphasis on construction per se. It reveals substantial opportunities embodied by FM through developing myriad of business services which is an emerging trend in Malaysian construction industry. The level of knowledge and awareness of construction industry players and the opportunities, all pertaining to FM are analysed to ensure that it enables the expansion of FM in the industry as well as its resistance or barriers. This research reveals that strategic decisions of an organisation substantiate changes either in market development, penetration or diversification to FM depending on the organisation, can enhance competitive advantages quality, add value and improve business relationships amongst its stakeholders. This research indefinitely provides an insight on the application and the opportunities of FM through its interface in the construction industry by acquiring appropriate strategic actions.

ABSTRAK

“Facility Management” (FM) atau Pengurusan Fasiliti adalah tren yang semakin popular di dalam industri pembinaan di Malaysia. Ia meningkatkan kualiti pengendalian, penambahbaikan organisasi dan meminimumkan pendedahan kepada risiko. Selain dari mewujudkan peluang perniagaan dan memperbaiki perhubungan perniagaan, ia juga dapat menjana peluang perniagaan yang besar. Kajian ini memberikan konsep asas penerapan FM secara am dan specific dengan tumpuan diberikan kepada sektor pembinaan. Ia mendedahkan peluang besar yang diwujudkan oleh FM dengan penghasilan lebih banyak perkhidmatan perniagaan yang merupakan tren di dalam industri pembinaan di Malaysia. Tahap pengetahuan dan keperihatinan mereka yang terlibat di dalam industri pembinaan dan manfaat-manfaat berkaitan FM dianalisa bagi menentukan FM berupaya untuk berkembang dalam industri ini begitu juga dengan halangan-halangan serta rintangannya. Kajian ini juga menunjukkan bahawa keputusan strategik sesebuah organisasi boleh menghasilkan perubahan sama ada di dalam pembangunan pasaran, penerapan atau diversifikasi kepada FM bergantung kepada organisasi tersebut yang boleh menyumbangkan kepada kelebihan pesaingan kualiti yang memperbaiki dan meningkatkan perhubungan perniagaan di kalangan peniaga. Kajian ini juga memberikan wawasan dalam penggunaan dan peluang FM dalam tempoh masa yang belum dipastikan melalui hubungkait di dalam industri pembinaan dan tindakan strategik yang sewajarnya.

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LIST OF ABBREVIATIONS

BIFM	-	British Institute of Facilities Management
CFI	-	Customer Feedback Index
CFM	-	Centre of Facility Management
FM	-	Facilities Management
GDP	-	Gross Domestic Product
IFMA	-	International Facility Management Association
ISO	-	International Standardisation for Organisation
IT	-	Information Technology
JKR	-	Jabatan Kerja Raya
KPI	-	Key Performance Indicator
O&M	-	Operation & Maintenance
R&D	-	Research & Development
SLA	-	Service Level Agreement
SLM	-	Service Level Management
SLR	-	Service Level Requirement
TQM	-	Total Quality Management

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The rise of business process engineering and a corporate focus on white-collar productivity has consequently resulted in out-sourcing of non-core services. This was an emergent trend which strengthened in the recession of the early 1990s in the United Kingdom (ca. 1990). Facilities management originated in the United States in 1960's, spread to United Kingdom in 1970's and inevitably in the last decade has expanded and grew to other European countries, Eastern Continent and Asia. Since the late 1980s, facilities management has gradually gained a foothold as a discipline and profession within the property and construction industry in the United States and United Kingdom (Tay and Ooi, 2001).

Othman 1996, described facility management in Malaysia as a relatively unknown concept. To date, the role of facilities management in Malaysia still lags behind other Asian counterparts namely, Hong Kong and Singapore, and are undeniably far behind, United States and Europe.

Malaysia, the diversification of construction industry organizations services to facilities management operations has begun to emerge following the recent recession in 1998. In view of this emerging trend, this research is designated to provide vital information on the construction industry strategic management and the rationale which enable integrated facilities management to be assimilated in the construction industry per se.

This research is an elaboration developed through Lunn, Price and Stephenson's in their collaborated research entitled 'Emergent Behaviour in a new market : Facilities Management in the U.K, 2003'. The research reported that a recent trend has been for construction companies to seek to relist themselves or their facility management subsidiaries as service providers on the London Stock Exchange. Amongst the study findings is that 85% of facilities management organisation in United Kingdom derives from construction industry.

In 2004, six leading facilities management organisations and publications in the United States; International Facility Management Association (IFMA), FMLink, Association for Facilities Engineer (AFE), Association of Higher Education for Facilities Officer (APPA), Building Owners & Managers Association (BOMA), and Building Operating Magazine, partnered to conduct the largest and most comprehensive industry-wide survey. In the Facilities Industry Survey, 72% and 51% of the primary function of the facilities management operations are operations and maintenance / energy management, and architectural and engineering / construction and project management respectively.

Late 1980s witnessed the development of facilities management in Europe. Throughout the years a number of surveys have been carried out with the objectives to provide an understanding of key developments via the market trends of facilities management in Europe. Amongst the more significant surveys as stated in Facilities Management European Practice 1996 (Alexander et al, 1996) are 'The State of Facilities Management in Europe' by DEGW (1992), 'European Facilities Management Survey' by

EUROCORE (1993), 'The Development of Facilities Management in Europe' by Keith Pratt (1994), 'The European FM Marketplace : current size, state of maturity and future trends' by Johnson Controls World Services Inc. (1995), and 'Facilities Management in Europe' by BISRIA (1996).

Facilities management is also a relatively new idea in Malaysia, nonetheless its awareness is emerging. The establishment of academic qualification in facilities management from local universities in Malaysia offering MSc programmes; Universiti Teknologi Malaysia and Universiti Teknologi MARA, testifies to its growing importance and indicates a heightening appreciation to facilities management. issues.

This research will critically acknowledge the level of knowledge and awareness of facilities management of the key players in Malaysian construction industry. This is in order to measure the level of understanding and acceptance of facilities management in the construction industry per se, as well as Malaysia, as a whole.

Pitt and Hinks 2001, proposed four existing barriers to the operation of the facilities management vis-a-xis structural barriers, strategic barriers, operational barriers and professional boundaries and barriers. This research will identify the impediments and the opportunities of assimilation of facilities management in the construction industry, as well as, suggestions on effective improvements.

1.2 SIGNIFICANCE OF STUDY

The research is vital to construction industry key players as it provides essential information on the emergent trend of facilities management and the added value it offers, in addition to the competitive advantage it gains.

A précis of the significance of the research which are the analysis focal aspects shall encompass of the followings:

- The strategic action engaged by construction industry key players in overcoming/solving the industry issues
- The roles and importance of facilities management in construction industry and construction activities per se.
- The level of knowledge of construction industry key players in facilities management.

1.3 PROBLEMS STATEMENT

The most recent Asian crisis which was triggered by the devaluation of the Thai baht on 2 July 1997, had subsequently contributed to Malaysian economic recession in 1998 (Malaysia Business Trends Survey Report 2000).

Due to the much weaker ringgit, Malaysia enhanced its terms of trade, thus made its exports more attractive in global markets where the economic expanded robustly in 1999 and 2000 at 6.2% and 8.9% gross domestic product (GDP) growth, respectively. In spite of its efforts, it slowed down during the global trade recession and the slump in the Information Technology (IT) sector of 2001 (McKeever, 2003).

A moderate economic recovery took hold in 2002 at 4.1 % GDP growth, after low growth of only 0.3% in the previous year. The country experienced a healthy 7.1% gross domestic product (GDP) growth in 2004 compared to 5.3% in 2003.

The manufacturing and services sectors in 2004 continued to register strong GDP growth at 5.4% and 6.3% respectively, agriculture sector grew at a slower pace at 7.7%, nonetheless, construction sector contracted by 1.7 per cent in the second quarter and further declined to 3.3% in the fourth quarter (The Star and Tradewatch, 2005).

An overview of the construction industry growth witnessed an apparent fluctuation trend, with an average growth of 14.9% between the year 1990 to 1997, and plummeted to -24% and -4.4% in the year 1998 and 1999 respectively. In 2003, the construction sector witnessed a modest growth of an average of 1.9% compared to 2.3% in year 2001 and 2002 whilst year 2000 at 0% growth.

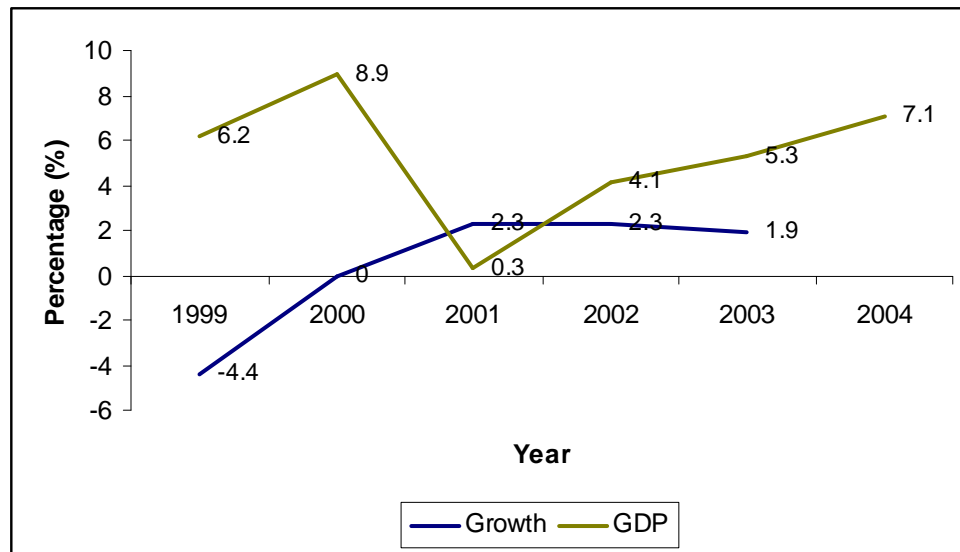


Figure 1.1 : Construction Sector Growth (Year 1990 - 2003) & Malaysia GDP

The following Figure 1.2 illustrates the numbers and value of government projects in year 1996 to 2004. In the nine years duration, year 2000 recorded the lowest numbers of projects executed, as well as the lowest project value at 183 numbers and RM 4,669 million respectively (JKR Annual Report, 1996 - 2004). It is identified that no civil works projects was implemented in that particular year, in which case, civil works is considered the main contributor in terms of project value in overall government projects.

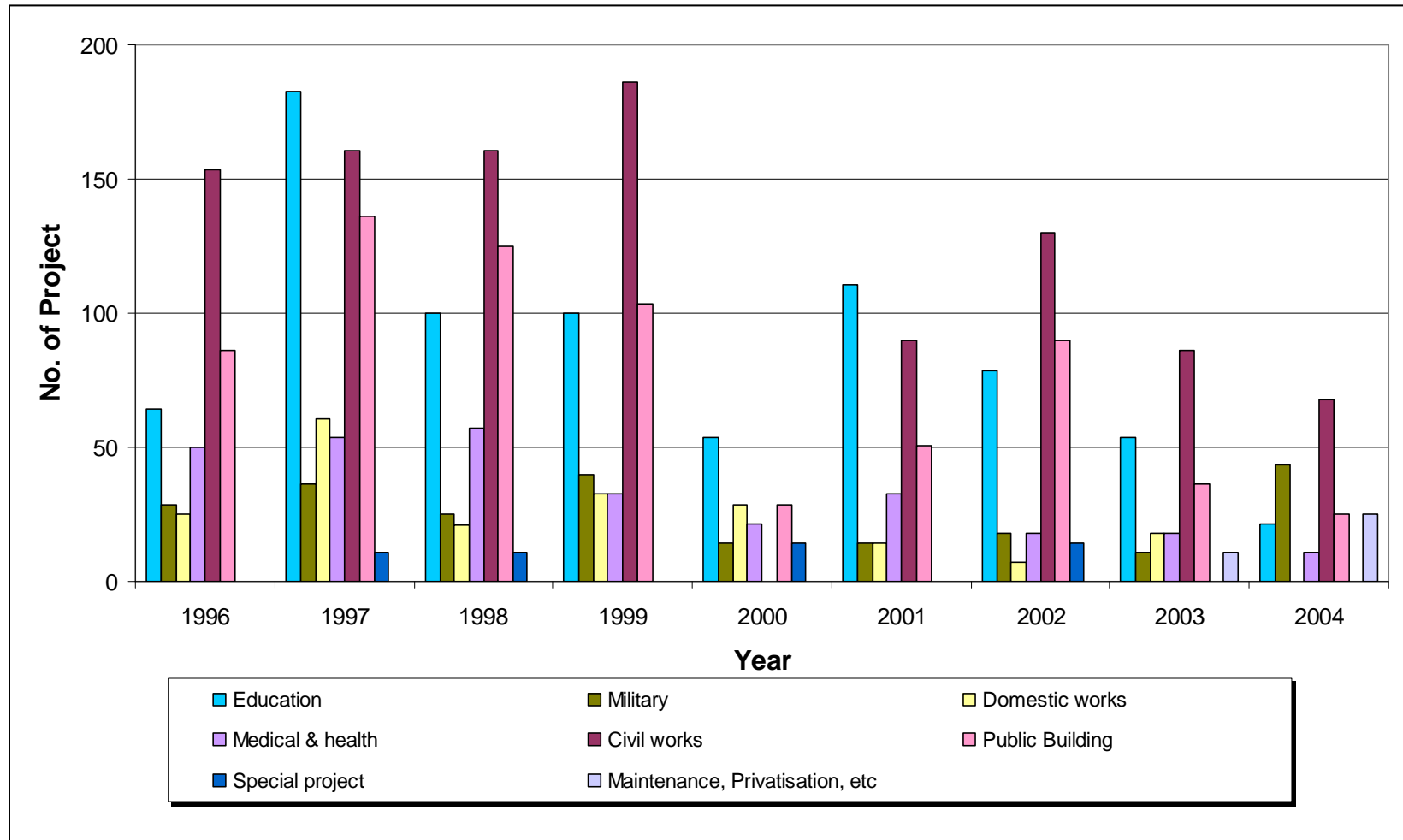


Figure 1.2 : Government Projects (Year 1999-2004)

It is highly significant to emphasize the emergence of maintenance, privatisation and etc. projects in year 2003, which so far has been responsible in the maintenance and upgrading works of road and bridges including water, supply system. In particular, the water supply system to Pulau Perhentian project in 2003 and Simpang Pulai - Lojing - Gua Musang - Kuala Berang road project in 2004 (JKR Annual Report, 2003 & 2004).

The depletion of government projects has been triggered by completion of major projects for the 8th Malaysian Plan (RMK 8) which is stipulated for year 2001 to 2005. Government decision and lack of fund from clients have been the main cause of projects cancellation. Albeit the decreased in project cancellations with 16 projects valued at RM0.07 billion to 8 projects valued at RM0.12 billion in year 2002 and 2003 respectively, it contributed to the lost of 3% out of total value of contracts (Market Watch 2005).

The effect of this issue, has resulted in the lost of revenue for construction industry players, vulnerable sector's growth and decreased employment opportunities. At the end of 8th Malaysia Plan (RMK8) by 2005, it is predicted that the amount of new project that would create employment would decrease in the construction sector. This signifies that projects and employment opportunities would be slow. The decrease of the value for new project for year 2004 reached 22.5% with no new indication for year 2005 to remedy the loss. Hence, new projects opportunity is expected to be lower with -48.2% to 6% compared to the value in year 2003 and 2004 respectively (Market Watch 2005).

In addition, the 2005 Budget represents a 3 per cent cut in government expenditure, with financing for smaller projects to promote grassroots development rather than big infrastructure projects (Budget Report 2005).

In the private sector, projects development has decelerated, as the result of increased unsold property units. In year 2003, the sales of housing units only reached 52% with 25% of commercial units being unoccupied and demand for office space still

low, where developments of commercial projects like commercial complex, office building and factory was only at a mere 3% to 4% (Market Watch 2005). The implied effect is that the demands for commercial units will still be low for a longer duration.

Concisely, the fundamental issues that are confronted by the construction industries as aforementioned are summarized as follows:

- The country economic condition depicts a slow acceleration of construction industry sector growth
- Government decision and lack of fund from clients hinders project opportunities
- The end of the 8th Malaysian Plan (RMK 8) and the beginning of the 9th Malaysian Plan (RMK9) has led the construction industry towards uncertain prospect
- Demands for property and commercial projects are depleted
- Construction industry suffers declining new projects opportunities, thus decreasing employment rate.

The development of maintenance, privatisation and etc. projects division in Jabatan Kerja Raya in 2003, reveals the importance of diversification and focusing in this sector, in terms of the prolongation and continuum of the lifecycle of a project, towards facing the current construction industry situations.

With devastating and crucial aforementioned construction industry issues, it is imperatively important for construction industry key players to maintain its sustainability in the industry, competitively challenges its opponents and focus on its ability to adapt to the issues.

1.4 OBJECTIVES

- i) To provide an incisive overview of facilities management and its application in construction industry with an emphasis in construction industry.
- ii) To analyse the construction industry strategic management concept towards FM interface and overcoming industry issues.
- iii) To assess the level of knowledge and awareness including the perception of Facilities Management amongst the key players and its trends in construction industry.
- iv) To identify the impediments, the opportunities, and recommend improvements towards the development of Facilities Management.

1.5 SCOPE OF STUDY

The scope of this research are focused and thus limited to the followings

- i) Only personnel at management level in the construction industry are assessed.
- ii) The research is subjected to construction industries in private sectors only.
- iii) The samples of construction industry organizations are restricted to those within the peripheral of Kuala Lumpur and Klang Valley only.

1.6 HYPOTHESES OF STUDY

- i) Most personnel at management levels of construction industry organisations are more knowledgeable and aware of Facilities Management.
- ii) Malaysians construction industry organisations are expanding its services from solely construction based to both construction and facilities management operations.
- iii) The emergence of facilities management services or operations in construction industry is dependent on the size and strategic actions of the organisations per se.

1.7 METHODOLOGY OF STUDY

Certain methods and process have to be performed to ensure that the objectives of the research are well accomplished. The data and information obtained are collected, arranged and analysed by taking into considerations the aforementioned relevant issues.

1.7.1 First Phase : The Introduction of The Study

The first phase is concerned with an in depth literature review which is carried out through readings and discussions on the available resources such as related books, newspaper cuttings, magazines, journals, internet and also individuals concerned as valid references.

In order to form the objectives of the research and the problem statements, the outcome of the data and information collected is utilised. The stages incorporated in the first phase are as follows:

- i. Ascertaining the course of research.
- ii. Identifying the related problems
- iii. Forming the title of the research
- iv. Identifying the objectives to be accomplished by the research.
- v. Clarify the hypotheses of the research.
- vi. Outline the scopes of the study.
- vii. Interpret the importance of the study.
- viii. Determining and arranging the methodology to be utilised for the study.

The first phase provides a clearer inception view of the study. The stages to be utilised towards the accomplishment of the research are identified and elaborated.

1.7.2 Second Phase : Data Collection

In the second phase of the research, the sources of data required will be identified. In order to attain these data, two categories of data sources identified are as follows:

1.7.2.1 Primary Data Source

Primary data sources are data generally obtained from interviews and questionnaires, which are yet to be analysed. Two methods are utilised to attain the primary data sources.

1.7.2.1.1 Questionnaire

With the aim of determining the facilities management phenomenon in relation to the research objectives, 30 questionnaires will be distributed specifically to relevant parties in the construction industry. The parties concerned are:

- Managers in construction industry's organisations
- Key players in construction industry's organisations
- Facilities managers

1.7.2.2 Secondary Data Source

The analysis obtained from a primary data is referred to as secondary data source. The data is either published by the government sectors, private sectors or individuals. It is acquired to enhance the understanding particularly in the field of the research. Amongst the secondary data sources are:

- i. Reference books
- ii. Journals
- iii. Magazines
- iv. Newspaper
- v. Internet
- vi. Reports

1.7.3 Third Phase : Analysis On Research Data And The Outcome

Facts and statistics derived from both primary and secondary data sources are analysed in the third phase.

1.7.3.1 Primary Data Sources

Primary data obtained are collected. The answers to the questions related to the objectives of the research are gathered.

1.7.3.2 Secondary Data Sources

Relevant secondary data obtained are selected to be utilised for analysis purposes.

1.7.3.3 Data Analysis

At this stage, all information and data obtained are analysed and updated. Discussions with the supervisor are generated concurrently in order to enhance and improve the research.

1.7.4 Fourth Phase : Conclusion And Recommendation

The outcome of the analysis will be concluded and suggestions will be recommended with the intention of achieving the stated objectives. The findings of the research are fundamental.



Figure 1.3 : Methodology of Research

1.8 STRUCTURE OF RESEARCH

An overview of the Chapters featured in this research are as follows :-

1.8.1 Chapter 1 - Introduction to The Research

This chapter is the most critical as it provides the initiated strategy and format of the research. It consists of the introduction, significance, problem statements, objectives, scope, hypotheses, methodology and structure, all pertaining to the research.

1.8.2 Chapter 2 - An In - Depth Introduction to Facilities Management

Chapter 2 provides an overview and a detail preciseloutline of facilities management. This chapter revolves the nature of facilities management which consists of the history, definition, scope, life-cycle, roles and practice.

1.8.3 Chapter 3 - Facilities Management in Construction Industry

This chapter provides comprehensive details on facilities management in the context of construction industry, the scope, application, roles and responsibilities it encompasses.

1.8.4 Chapter 4 - Strategic Management In Construction Industry

This chapter presents information on strategic management in view of the current construction industry issues. It depicts the driving forces and strategic actions engaged by construction key players in overcoming the challenges in the industry. It includes FM market studies which focused on its diversification from the construction industry.

1.8.5 Chapter 5 - The Analysis

Data obtained from questionnaires in relation with the research objectives returned by the respondents are reviewed and analysed thoroughly.

1.8.6 Chapter 6 - Conclusion & Recommendations

The findings from the analysis will be concluded and suggestions will be recommended prior to the attainment of the research objectives. The outcome of the analysis will also be tested against the aforementioned hypotheses.

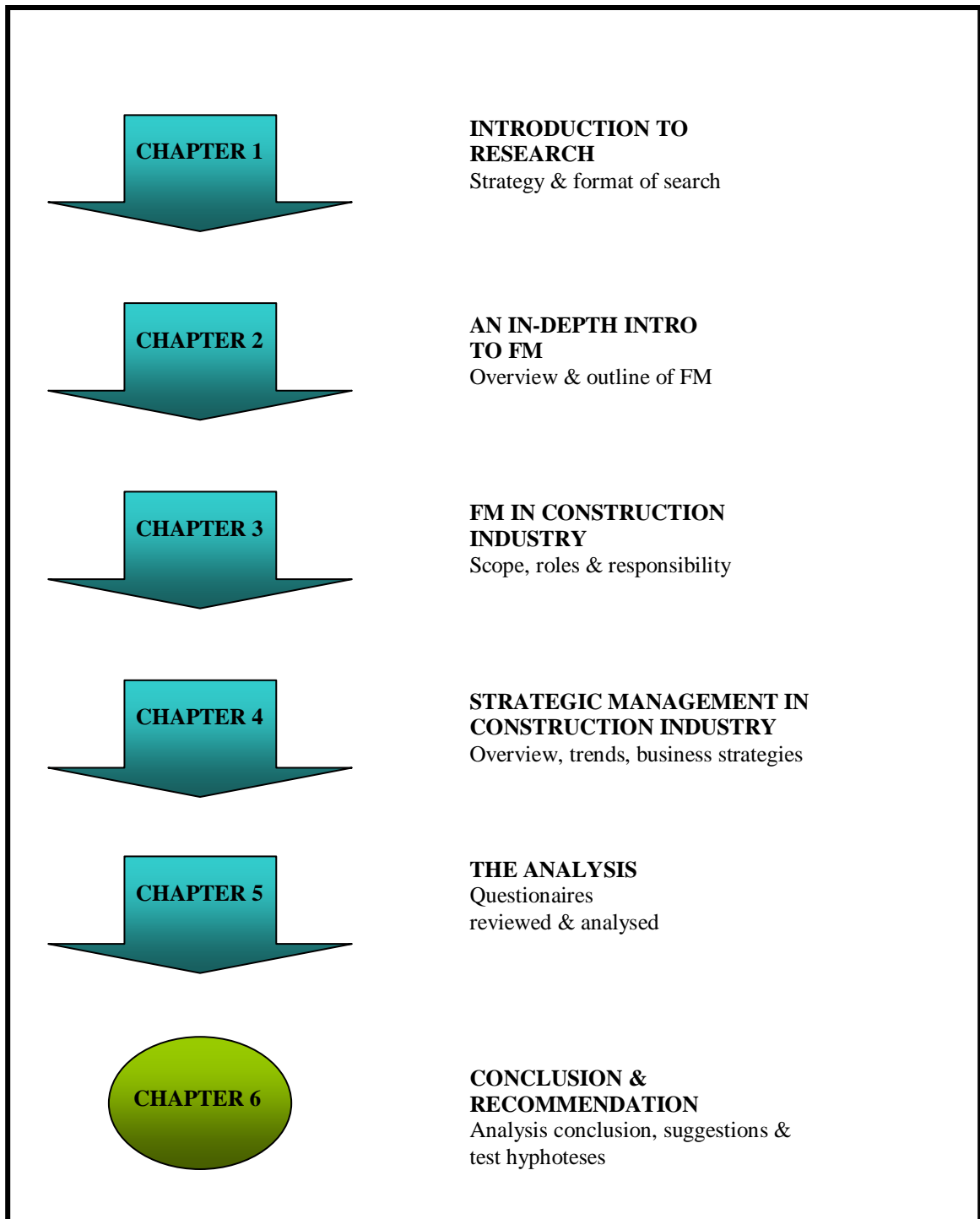


Figure 1.4 : Structure of research