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**“The Effect of New Management Methods on the  
Efficiency of the Design & Construction of Urban  
Projects”**

By  
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B.SC., Architecture. Ain Shams University, 1999

A Thesis Submitted in Partial Fulfillment of the  
Requirements for the degree of  
**Master of Science in Architecture**

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Cairo, Egypt  
2006

**(i) Problem Definition.**

- The research addresses the effect of applying scientific management theories and standards on the urban projects different stages, especially the design and construction stages as a core stages in the project final product development, where the scope of this research falls under the umbrella of “ Building Technology”.
- The three main goals of any project are (Scope, time & cost ) in integration with quality aspects for the product; this is noticed through history which traces different trials to reach the control of the previously mentioned goals leading to customer satisfaction.
- The accumulation of previous experience in the field of technical and management handling of construction projects must add to our knowledge concerning this issue, where science and architecture combine together to serve human kind.

**i.1. Research Problem.**

- Urban projects are from the engineering projects where a huge budget is expended. So, any disturbance in any of the project main goals (Scope, Time, and Cost) could lead to a bad and severe effect on the owner’s strategic plans preventing client’s satisfaction which is the main goal of the team working on this urban project.
  - The inaccurate interfere and responsibility consideration in accordance with management and technical tasks leads to a disturbance during project progress.
  - Accordingly, inefficient product either in the means of time, money and quality is produced expressing that these projects failed to reach the client satisfaction which is highly connected to the previously mentioned items.
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**i.2. Research Rationale.**

- The research problem is double sided:
  - a. **Economically.**
    1. Owner's strategic plans interruption, especially in case of public sector client and projects serving wide range of citizens.
    2. Lots of projects were abandoned or modified by users as a cause of bad quality product of the design and construction stages.
  - b. **Humanly.**
    1. The unsatisfactory functional conditions proposed to the project users.

**i.3. Research Approach.**

- Nowadays, many strategies which make use of project management have been improved since the industrial revolution:
    1. By initiatives of professional organizations which provide a frame work for discussion of the project management issues.
    2. Project management standards documents and instructions which have a significant impact on the understanding of the project management profession.
  - The research tends to link the parameters forming the project management body of knowledge with the technical procedures of the design and construction stages of construction projects, where a proposed urban project strategy chart is done based on the analysis of the previously mentioned items.
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(ii) **Goal of the Research.**

- To reach a common guidelines structure to serve the increasing of urban projects product efficiency by combination of scientific management and construction engineering together.
  - This will be done by proposing an **Urban Projects Strategy Chart**, linking project management techniques application with the commonly known procedures of the urban projects.
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### **(iii) Objectives of the Research.**

- The objectives are the successive goals of each chapter of the research, where these goals act as a one way direction and integrate together to reach the research main goal in a cooperative manner, the following table illustrates these objectives showing the classification of chapters into three main parts:

		Chapter	Title	Objective
Part I	Introduction to Project Management	Chapter I	Historical Development Of Engineering Management & Standards	To benefit from the previous experience in the field of engineering management and to trace the evolution of this science until reaching its recent strategies
		Chapter II	Successful Project Management Principles	To study the main project management principles theories and focus points.
Part II	Urban Project Processes	Chapter III	Management Processes	Studying project management area of knowledge, tools and techniques and interaction among management and technical processes
		Chapter IV	Technical Processes	Studying the urban projects main characters and technical phases
Part III	Managing urban projects	Chapter V	Urban projects strategy	To propose a possible strategy for urban project during the design & construction stages.

(iv) **Scope & limitations of the Research.**

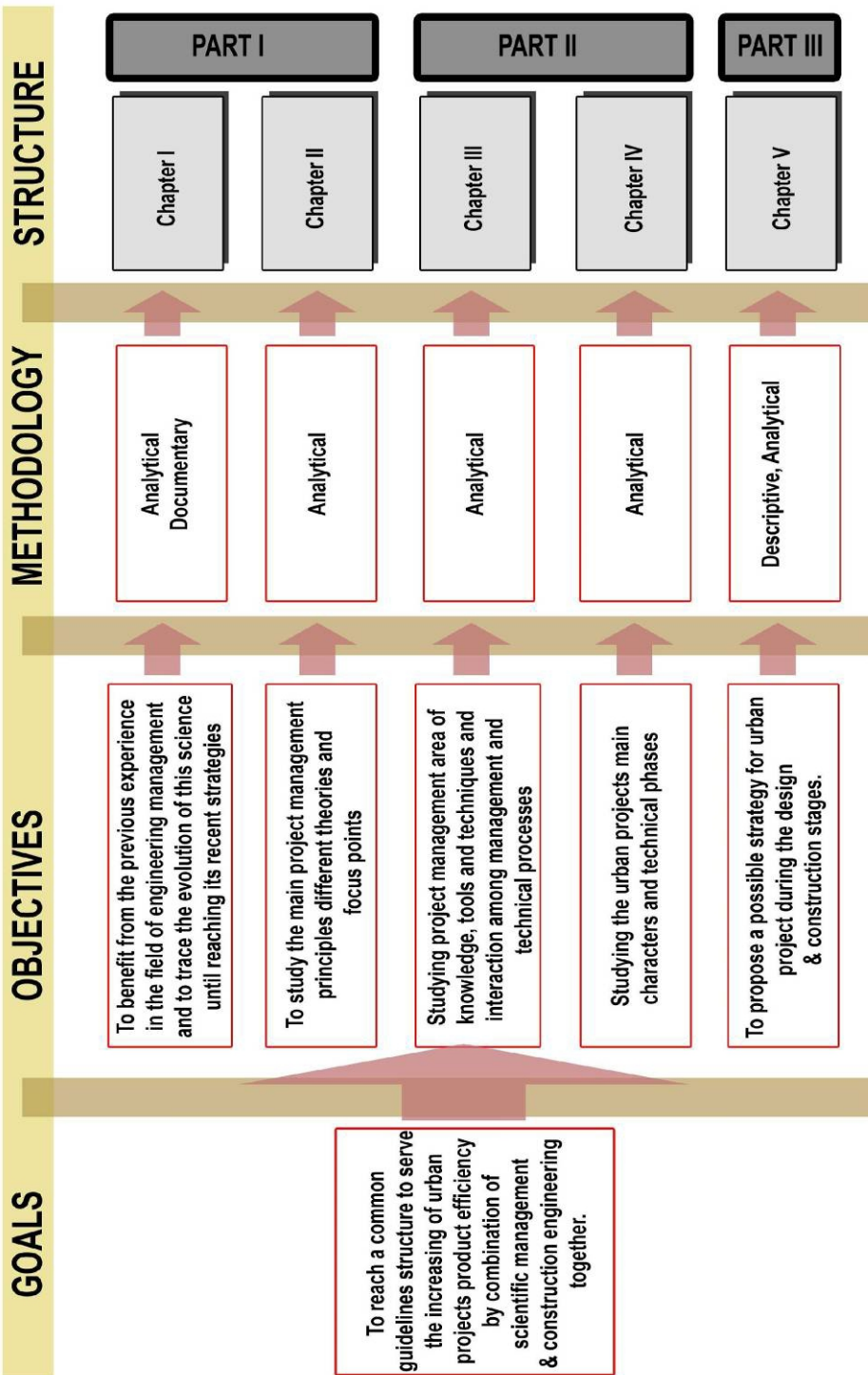
- The focus of this research is on the management strategies of **urban projects** through **Design & Construction Phases Only**.

(v) **Methodology of the Research.**

- The research follows two methodologies to fulfill the objectives previously mentioned, which in turns form its structure:
- “Chapter I” and “Chapter II” follows an *analytical documentary methodology*, where a historical survey tracing the evolution of management thoughts, project management standards, organizations and principles is done.
- “Chapter III” and “Chapter IV” follows an *analytical methodology*, in which an analysis for project management frame of work, knowledge areas, tools & techniques and urban projects technical stages is done.
- “Chapter V” follows an *acquiring methodology*, which gathers all previous theoretical data in a form of a proposed urban project strategy chart.

The following diagram shows the relation between the goal of the research, objectives, the methodology and the structure of the research.

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## **(vi) Structure of the Research.**

The research is composed mainly of three parts:

### **Part I**

**Introduction to Project Management**, it consists of two chapters:

#### **Chapter I**

##### **Historical Development of Engineering Management & Standards.**

“Studies the previous experience in the field of engineering management and to trace the evolution of this science until reaching its recent strategies”.

#### **Chapter II**

##### **Successful Project Management Principles.**

“the main project management principles theories and focus points”.

### **Part II**

**Urban Project Processes**, it consists of two chapters:

#### **Chapter III**

##### **Management Processes.**

“Studies the project management area of knowledge, tools and techniques and interaction among management and technical processes”.

#### **Chapter IV**

##### **Technical Processes.**

“Studies the urban projects main characters and technical phases”.

### **Part III**

**Managing urban projects**, it consists of one chapter:

#### **Chapter V**

##### **Urban projects strategy.**

“Gathers all previous theoretical data in a form of a proposed urban project strategy chart”.

The following diagram shows the structure of the research, being classified into parts including different chapters.

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Introduction		VIII
RESEARCH STRUCTURE		
PART I	Introduction to Project Management	
CHAPTER I	Historical Development of Engineering Management & Standards.	Evolution of management thoughts Globalization of the project management profession
CHAPTER II	Successful Project Management Principles	Fundamental Principles of Project Management Key Elements to successful Project Management
CHAPTER III	Management Processes	Project Management Framework Project Management Body of Knowledge
CHAPTER IV	Technical Processes	Urban Projects Characters Urban Projects Technical Phases
CHAPTER V	Urban projects strategy	Assumptions urban project strategy chart
PART II	Urban Projects Processes	
PART III	Managing urban projects	
CONCLUSION & RECOMMENDATIONS		

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