

الفصل الأول

إدارة المشاريع الهندسية ودورها الحياتية

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•	-	
Feasibility Studies and Planning Stage		
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Production of the Construction Documents Stage		
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Procurement Stage		
•	-	
Construction Stage		
• ()	-	
Project Completion and Hand-Over Stage		
•	-	
Operation and Maintenance Stage		
•	-	
Management During the Life Cycle of the Project		
•	-	
Essential Elements in the Project Stage		

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Project Management

Project Management Body of Knowledge)

(PMI) Institute

(Fourth Edition – PA - USA

The Project is a temporary mean undertaken to create a unique result.

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Project Management is the application of knowledge, skills, tools, and techniques to project activities to meet project requirements.

Initiating

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Planning

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Executing

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Monitoring & Controlling

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Closing the project

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(Portfolio)

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Portfolio Management

إدارة حافظة المؤسسة

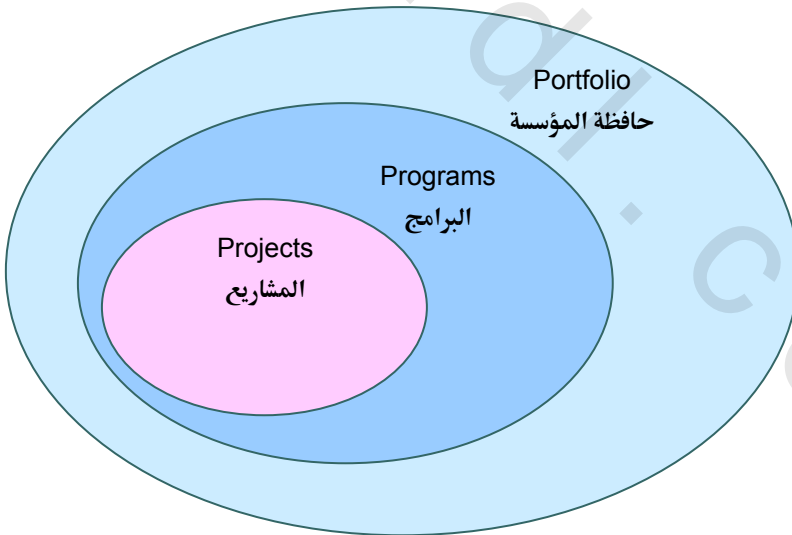
Program Management

إدارة البرنامج

Project Management

إدارة المشروع

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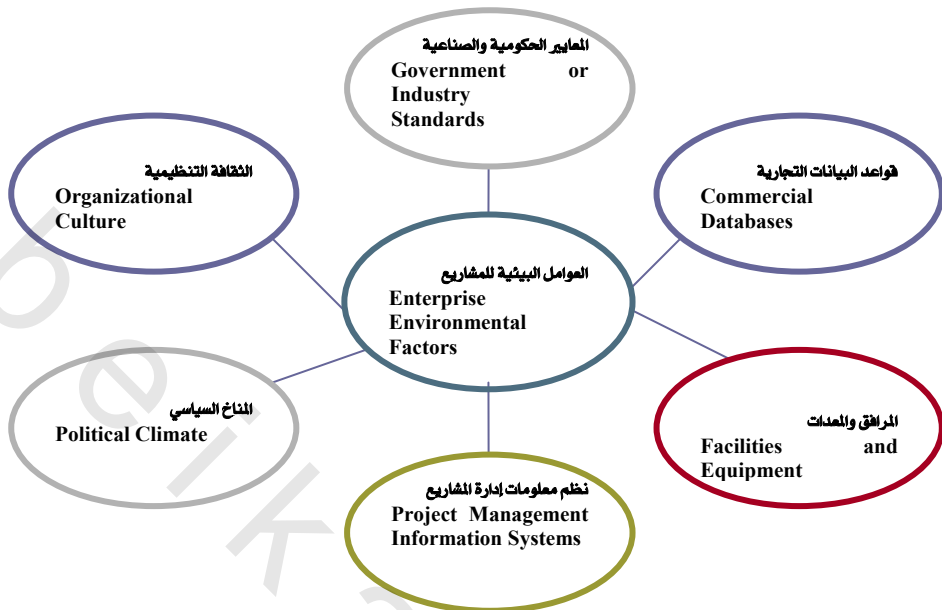


شكل (١-١)

العلاقة بين حافظة المؤسسة وبرامجها ومشاريعها

ويجب التفرقة بين إدارة المشروعات وإدارة العمليات

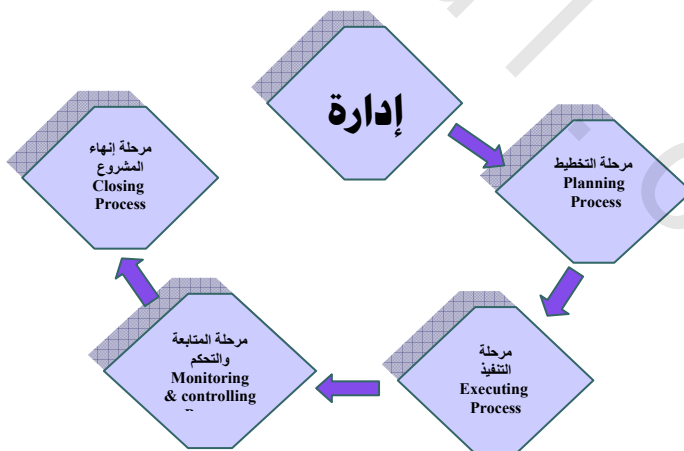
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شكل (٣-١)

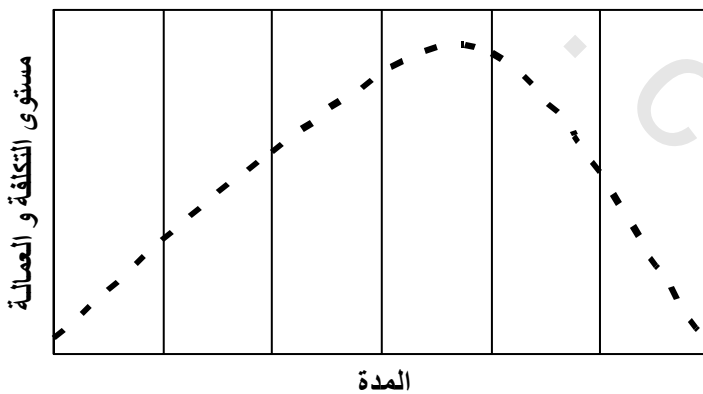
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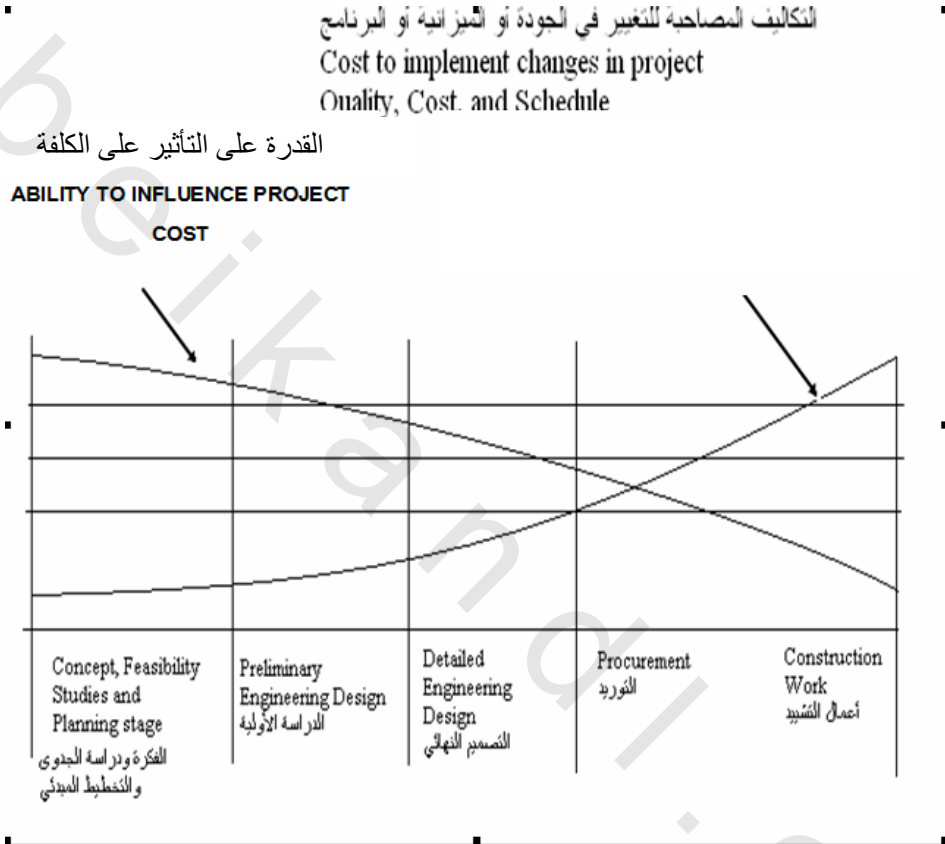
شكل ٣-١ مراحل الدورة الحياتية للمشروع

المستويات التقليدية لتكلفة المشروع و عمالته عبر
دورة حياة المشروع



شكل ١-٤

PMI



شكل ٥-١

التكاليف المصاحبة للتغيير في الجودة أو الميزانية أو البرنامج

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: **The Life Cycles of Project "** "

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Concept, Feasibility Studies and Planning Stage

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Engineering and Design Stage -

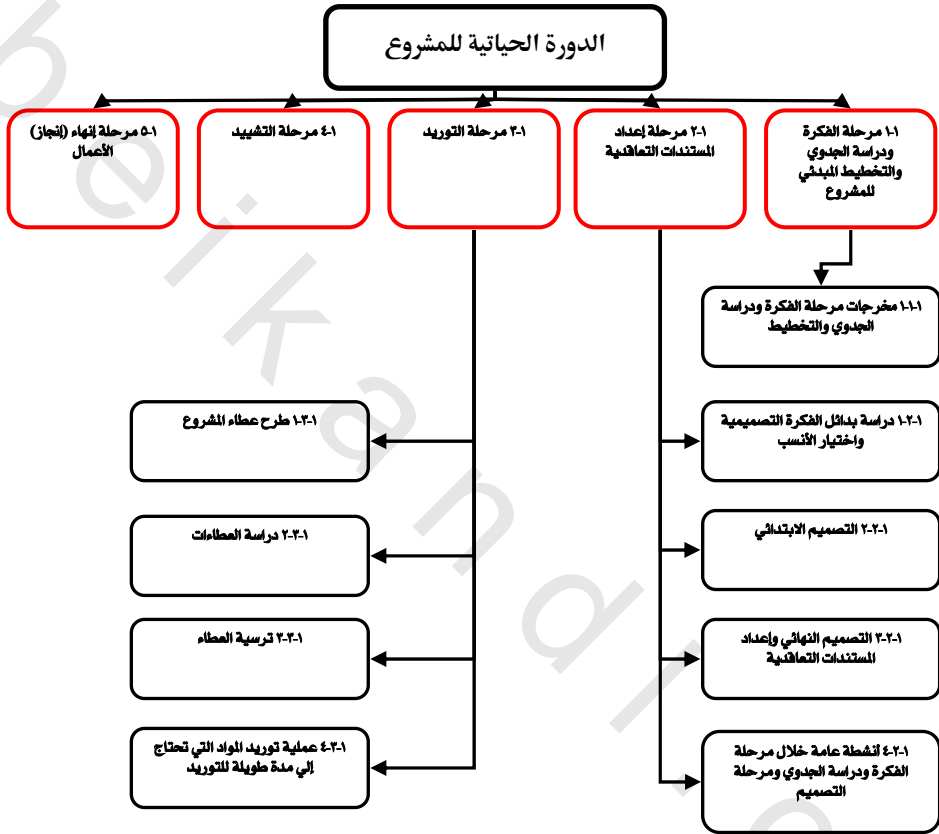
Procurement -

Construction Stage -

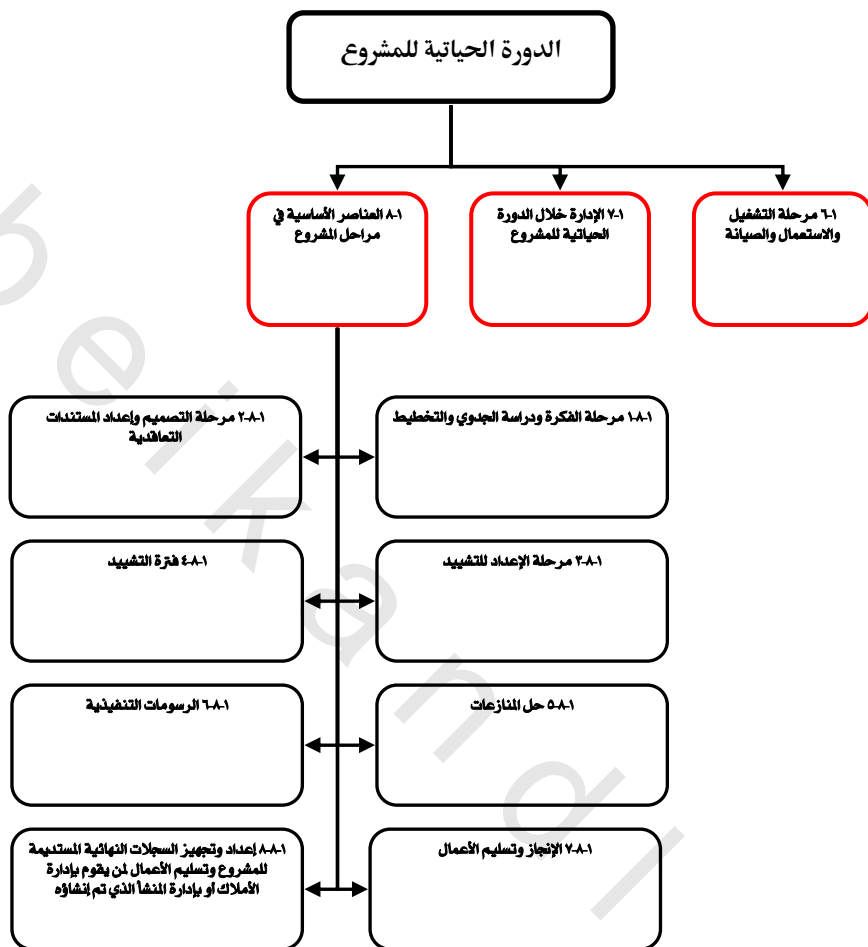
Project Completion, Commissioning and Hand-Over -

Operation or Utilization and Maintenance Stage

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شكل (١-١-أ)



شكل (١-٦-ب)

Feasibility Studies and Planning Stage

Pre-Design Stage

Project Objectives

Financial Project Costs and Returns

Quality

Alternatives

. Risk Study

Project Information and Control Systems

Phase Outcome :

Finalize Management Control System

Develop Conceptual Budget

Develop Conceptual Schedules

Develop Conceptual Quality Plan

Time-Cost Trade-Off Studies

Review Alternate Concepts

Risk Analysis Studies

Investigate Local Conditions

Identify Potential Construction Problems

Develop Resources and Analyze Available Requirements

Cash Requirements

Develop Management Information Systems

Develop Quality Control Programs

Formalize Project Control Systems

Terms of Reference

Space Program

Scope of Work

Investigate Alternate Bidding Contract Methods

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Publish the Work Plan

Production of the Construction Documents Stage

Concept Design Alternative and Selection / Refinement of Selected Concept Design:

single line

Refinement

Preliminary Design : - -

Packaging Strategy -

Final Design/Working Drawings and Tender Documents:

Project Documents

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Tender

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Contract Method

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General Activities:

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Constructability and Maintenance Analysis

Value Engineering

Best Value for Money

Pre-Qualification of Contractors

Questionnaire

Consultant's Pre-Qualification

Finalize Project Procedure Manuals

Procurement Stage

Tendering

Pre-Tender Meeting

Tender Study and Evaluation

Tender Award : - -

Verification of Construction Documents

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Procure Long Lead Items :

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Construction Stage :

Contract Award

Develop and Manage Transportation Program

Develop and Manage Safety Program

Licenses and required permits

Manage and Coordinate Construction Activity

Manage Quality Control Program

Manage Cost and Schedule Follow-Up

Contract Administration

Construction, Completion and Installation

Claims and Change Adjudication

Project Completion and Hand-Over Stage

Substantial Completion

As-Built Drawings

Test equipment and different operating systems

Commissioning Program

Contract Payment Procedure

Final Project Approval and Final Payment:

Operation and Maintenance Stage

Management During the Life Cycle of the Project

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Essential Elements in the Project Stage

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Idea stage, a feasibility study and planning

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The design phase and preparation of contractual documents

Phase of setup for construction

Construction period

Dispute Resolution

Drawings

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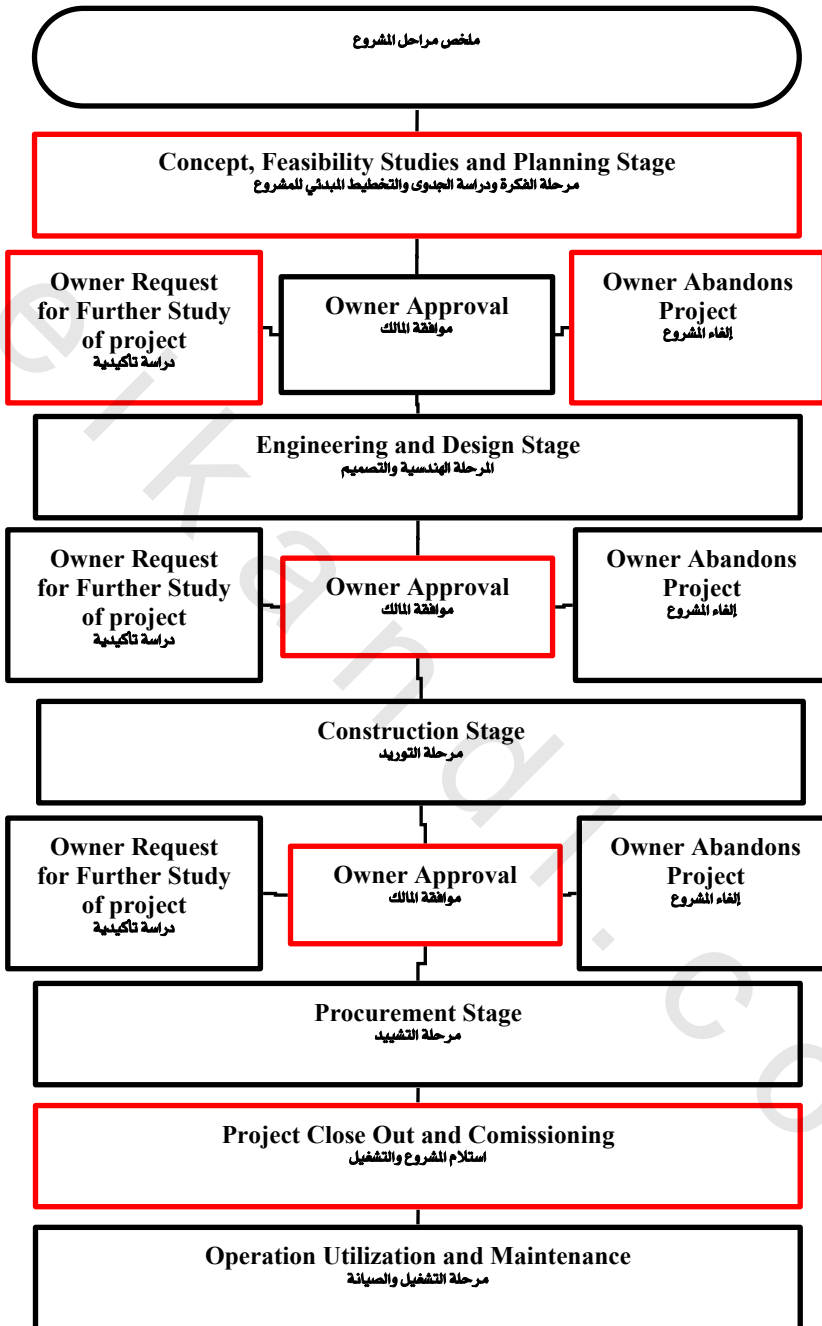
Completion and delivery of business

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شكل ١-٧ مراحل المشروع