

Project Management

Chapter One ▶

Modern Project ▶ *Management*

What is a Project?

- ▶ *Is a temporary endeavor undertaken to create a unique product.*
- ▶ *The major goal of the project is to satisfy a customer's needs and wants .*

Product:

- ❖ *Anything that is offered to the market to satisfy a need or want.*
- ❖ *The most common forms of a product is :*
 - *Goods*
 - *services*

Goods: are tangible products (cars, desks, chairs)

services: are intangible products.

The majority of services require a tangible product to be offered (e.g., car repair sometimes require using spare parts) few services are pure services.

Pure services: are those services that are not accompanied with physical products (advisory services, entertainment services)

What are the Characteristics of the Project?

- 1. An established objective.*
- 2. A defined life span with a beginning and an end.*
- 3. The involvement of several departments and professionals.*
- 4. Doing something that has never been done before.*
- 5. Cost , time and performance Requirements.*

1. Project objective:

Any project has a defined objective it aims at achieving:

➤ Examples:

- Constructing a 12 story building***
- Developing a new software program***

▶ 2. *A defined life span with a beginning and an end:*

Because projects have an objective ,they have a starting point to start working on objective achievement and an ending point at which the objective is accomplished.

3. *The involvement of several departments and professionals:*

Instead of working in separate departments under the supervision of different managers.

- ▶ *Project participants :*
 - ❑ *Engineers*
 - ❑ *Marketing specialists*
 - ❑ *Financial specialists*
 - ❑ *Quality control specialists*

they all work under the supervision of the project manager.
- ❖ *Once the project is accomplished the project participants will return back to their departments.*

4. *Doing something that has never been done before:*

- ✓ *any project should result in providing a unique product ;yet; uniqueness is a relative issue.*

Example:

- ✓ *developing a new energy source is entirely unique.*
- ✓ *construction projects that involve routine procedures involve also some degree of customization.*

5. Cost, time and performance Requirements:

- ▶ *Cost, time and performance are the characteristics employed in project evaluation.*
- ▶ *One of the basic activities of project management is to balance the trade offs between cost, time and performance while satisfying the needs of the customer.*

What the project is not:

- ▶ *A project is not a routine repetitive work.*
- ▶ *Projects differ from daily job operations*

Example:

Routine, Repetitive work	Project
<i>Taking class notes</i>	<i>Writing a term paper</i>
<i>Responding to one of the suppliers</i>	<i>Developing a supply chain information system.</i>

Program Versus Project.

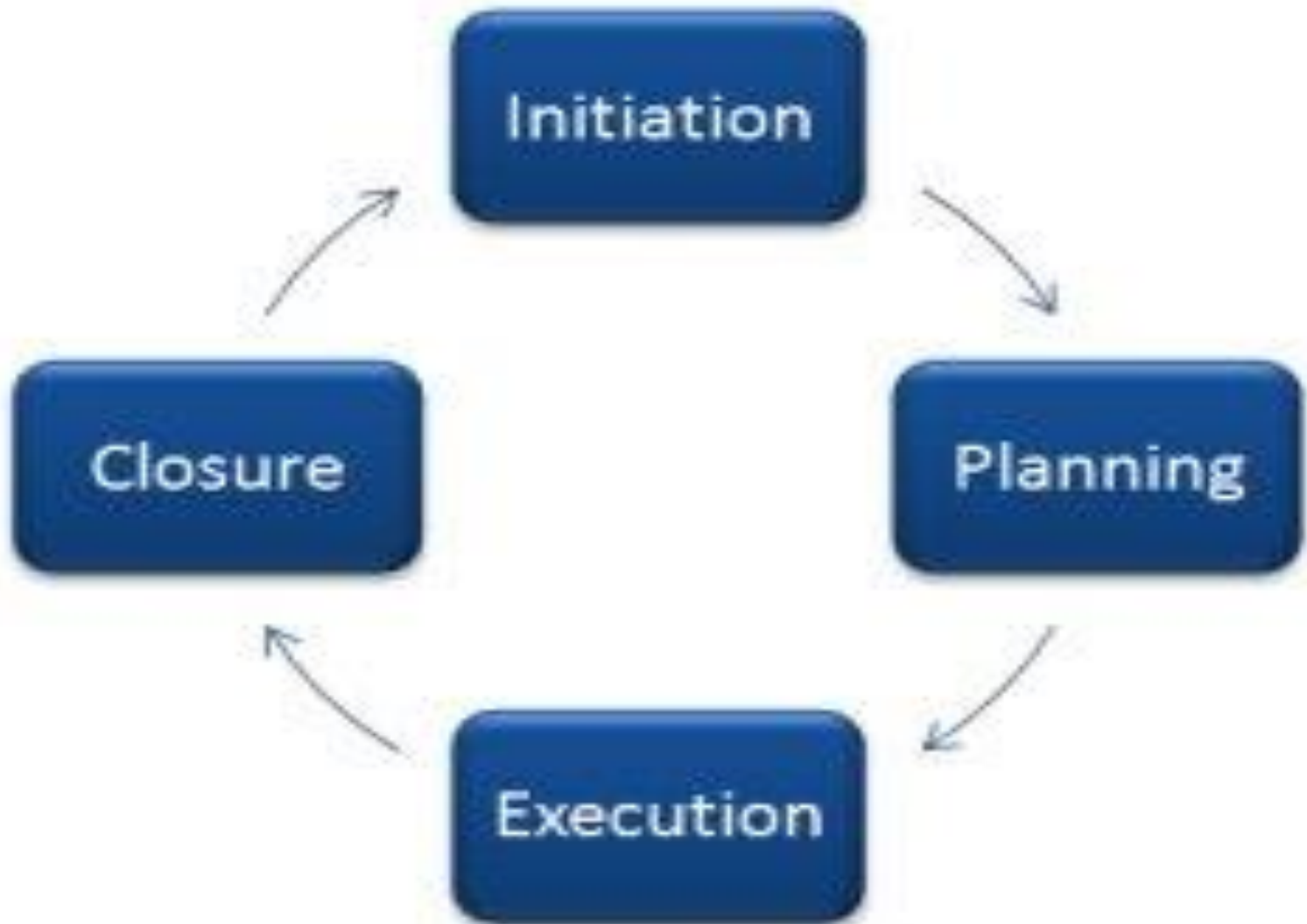
- ▶ *A Program is a group of related projects designed to accomplish a common goal.*
- ▶ *Each project in the program has got its own project manager.*
- ▶ *There is an over all program manager.*

The Project Life Cycle:

▶ *Any project has a four stage life cycle:*

- 1. Initiation stage.*
- 2. Planning stage.*
- 3. Executing stage.*
- 4. Closure stage.*

Project Life Cycle



1. Initiation stage.

- ✓ ***Project objectives are established.***
- ✓ ***Project team members are selected.***
- ✓ ***Responsibilities are assigned.***

2. Planning stage.

Plans are set to determine:

- ✓ ***The tasks that will be carried out.***
- ✓ ***Scheduling.***
- ✓ ***The desired quality level.***
- ✓ ***The Budget***

3. Executing stage.

- ✓ ***Work starts to take place.***
- ✓ ***Time, cost and performance standards are implemented.***
- ✓ ***Determining if certain changes are necessary.***

▶ 4. Closure stage:

It includes three activities:

- ✓ Delivering the product to the customer
which involves: training the customer and transferring the documents.
- ✓ Redeploying the resources of the project
Delivering the equipment of the project to other projects and finding other assignments to the team members.
- ✓ Post project review.
Assessing whether the project met its objective

The Characteristics of Project Managers:

- ▶ *Unlike functional managers (e.g., marketing managers and financial managers) who take over existing operations, project managers:*
 1. *create project teams.*
 2. *They must decide how and when things should be done.*
 3. *They should be able to meet the challenges of each phase.*
 4. *They deal with professionals from different backgrounds.*
 5. *They are in a direct contact with customers , vendors and sub-contractors.*

What are the Factors that trigger the need for Project Management?

These factors are:

- 1. Compression of the product life cycle.*
- 2. The Growth of knowledge.*
- 3. Corporate downsizing.*
- 4. Increased customer focus.*
- 5. Small projects represent big problems.*

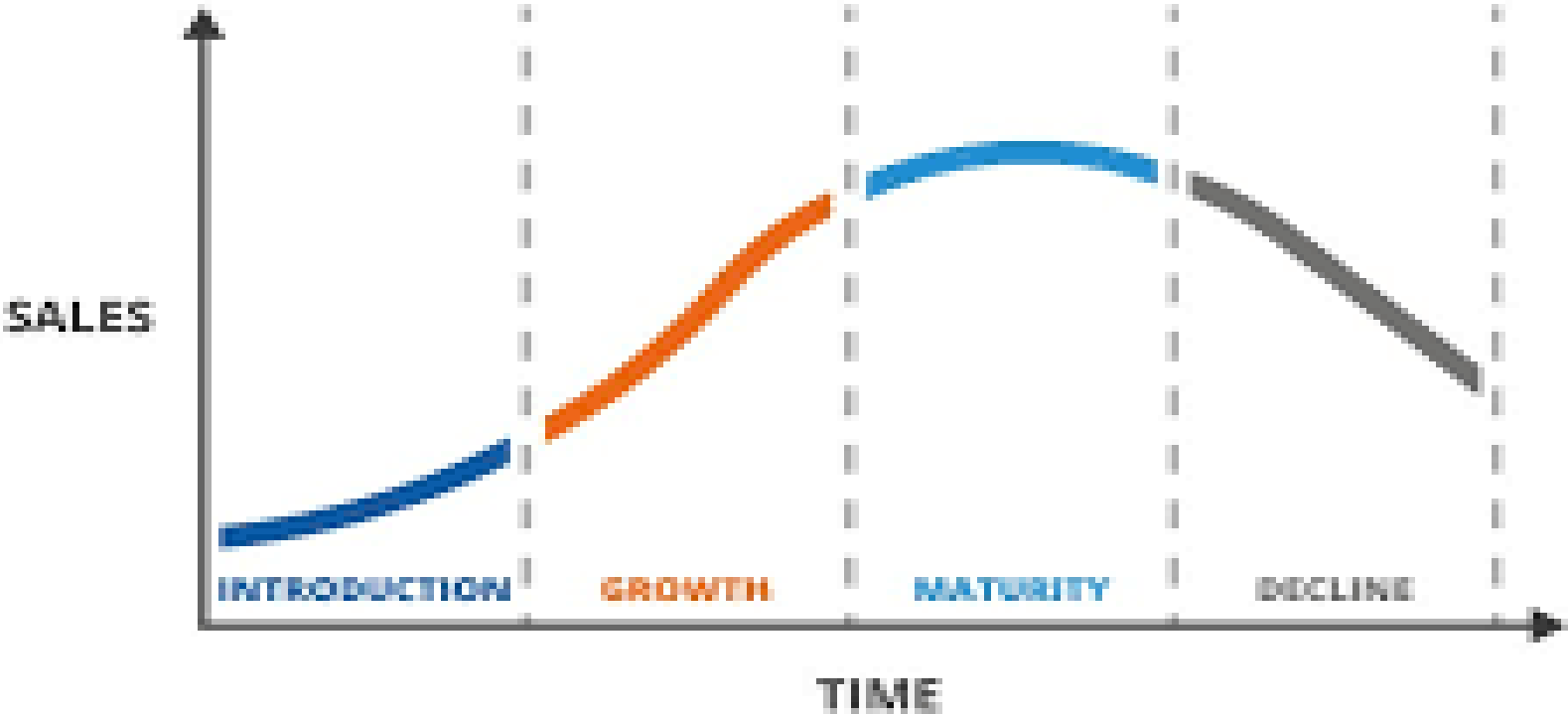
1 – compression of product life cycle:

Product lifecycle:

It refers to the stages the product passes through during its lifecycle.

- *the majority of products pass through a four stage lifecycle:*
 1. *Introduction*
 2. *Growth*
 3. *Maturity*
 4. *decline*

PRODUCT LIFE CYCLE



Introduction stage:

- *the new product is introduced to the market.*
- *Slow growth in sales*
- *The time spent by the product in the introduction stage depends on how well the product meets the needs of the customers.*
- *Many products tend to fail during the introduction stage.*

Growth Stage:

- *The demand on the product tends to increase.*
- *Firms tend to focus more on product branding and pricing to continue pushing sales up relative to competitors.*

Maturity stage:

- *sales are stable.*
- *Many customers have acquired the product so the market is starting to saturate.*

Declining Stage:

- *the demand on the product declines, which could be attributed to the introduction of new innovative products (the introduction of pens reduced the demand for ink).*
- *The decline in sales means the reduction in profits.*

Note that:

- ✓ *The relative time spent by the product in each stage depends on:*
 1. *whether the product satisfies a basic need*
 2. *The level of technology in the product*
- *Products that satisfy basic needs tend to enjoy longer product lifecycles (e.g., washing machines, refrigerators)*
- *The higher is the level of technology in the product, the shorter is the product lifecycle (e.g., electronic games).*
- ✓ *Some products do not have life cycles (e.g., spoons, forks, knives, pencils).*

1. *Compression of the product life cycle:*

- ✓ *Today, in high-tech industries (e.g., electronics, nuclear technology) the product life cycle is averaging 1 to 3 years. 30 years ago products of 10 to 15 years life cycles were very common.*
- ✓ *Shorter product life cycles require on time delivery of products and services to the market. Thus increasing the need for project management.*

2. *The Growth of knowledge.*

The rapid growth of knowledge increases the complexity of the projects , because projects encompass the latest advances.

3. *Corporate down sizing.*

Leads to increasing the reliance on outsourcing significant segments of project work to outside parties. So project managers have to manage their people and the outside parties to which certain tasks are outsourced.

4. Increased customer focus.

- ✓ *Customers no longer ask for generic products , but for customized products .*
- ✓ *The development of such products require developing direct relationship with the customers .*

5. Small projects represent big problems:

- ✓ *Small projects sometimes entail the same amount of risk as the large ones.*
- ✓ *A small project; although it doesn't require too much scarce resources; the failure of many small projects can cost the organization large amounts of money.*