

Project Planning

Lecture 1

PMG202

Project Preparation and Implementation Plan

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Learning Outcomes

At the end of this chapter, students should be able to:

- 1- Identify the stages of project preparation and implementation plan
- 2- Familiarity with the project life cycle
- 3- Define Break-even analysis in decision-making to achieve profit
- 4- Knowing the conditions necessary for the success of the project

1- Stages of project preparation and implementation plan



Stages of project preparation and implementation plan

- (1) Choosing the appropriate project idea
- (2) Willingness to work to complete the project
- (3) Having technical ability to manage projects
 - Project specific technical expertise
 - Information and knowledge about the project
 - Previous training in a similar project
 - Administrative and behavioral skill in dealing with others.



Stages of project preparation and implementation plan

(4) Carrying out a preliminary feasibility study for the project idea

- Market need
- Projects like yours
- Phases of operations of project activities

(5) Is the project idea promising success?

(6) Is the necessary financing available for the project (self - loan)



Stages of project preparation and implementation plan

(7) Preparing a detailed feasibility study, which includes:

- Environmental study: Is the project compatible with the environment?
- Marketing study: Does the project fill a certain volume of demand for the product?
- Technical study: What are the raw materials and what technological and technical methods are used?
- Financial study: Is the project's financial budget capable of covering production costs?
- An economic study: Will the project achieve a reasonable profit margin in addition to the costs?
- Social study: Will the project achieve a social return that will benefit the community, the consumer, or the target group?



Stages of project preparation and implementation plan

(8) Preparing a timetable for the project

- Setting detailed steps and priorities for the project's work and activities
- Preparing the site and equipping it with the required specifications
- Determine the time periods for the completion of work
- Determine the costs of each work or activity



Stages of project preparation and implementation plan

(9) The stage of implementation and preparation, which includes:

- Establishing the project according to the schedule
- Purchase and installation of machinery and equipment
- Operational and production tests
- Marketing and selling



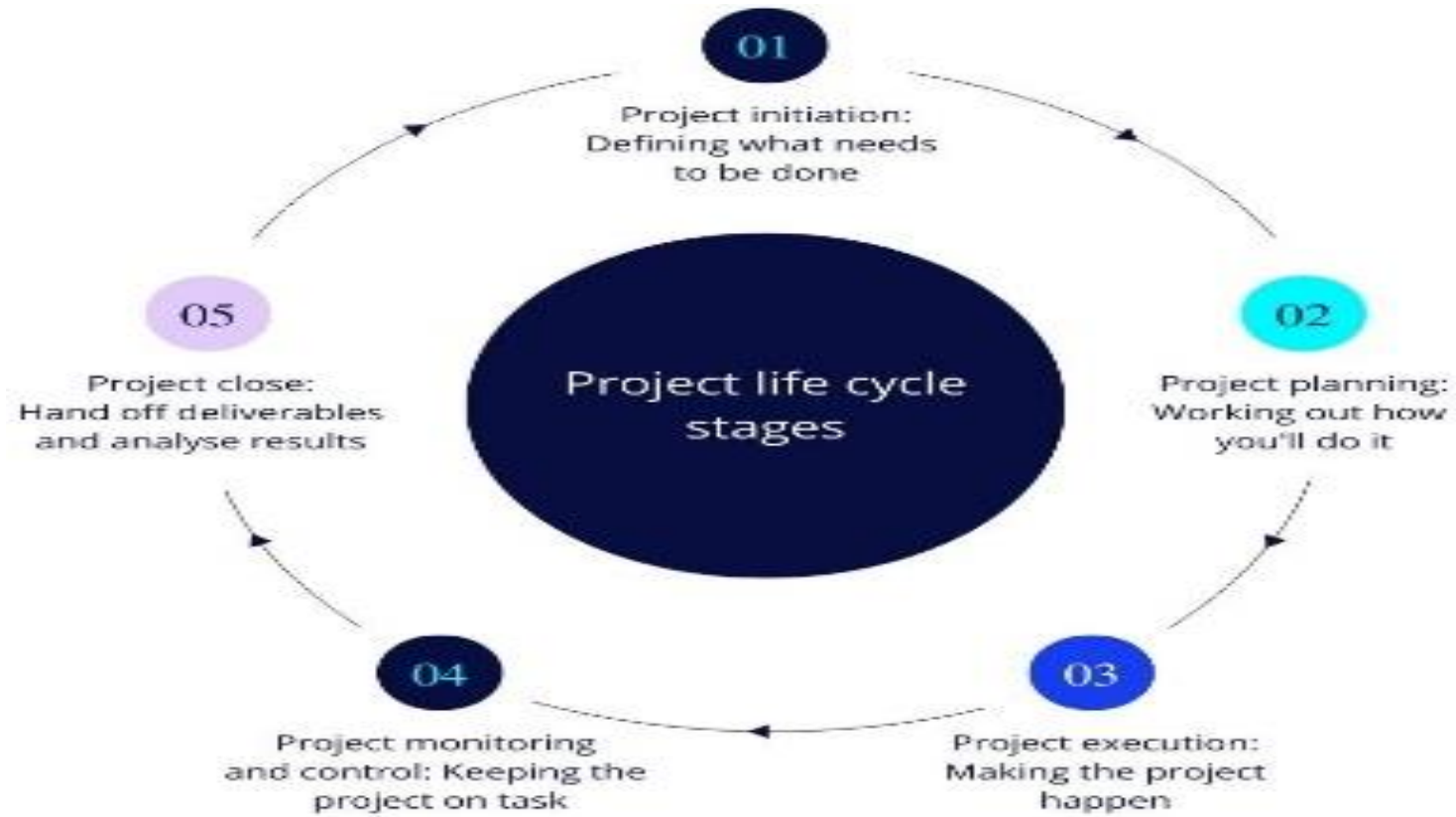
Stages of project preparation and implementation plan

(10) The follow-up and evaluation phase, which includes:

- Business
- time
- Spending
- Implementation rate and whether there is a problem
- Correction to ensure that the project objective is achieved

2- Project Life Cycle

Project Life Cycle





Project Life Cycle

Define: The project goals, rules, approach, and cost-schedule-quality equilibrium are agreed upon by the stakeholders.



Project Life Cycle

Plan: A plan is developed for the project. As each project is unique, this must be repeated every time for each project. This stage implies that the work to be done is identified, and split up into workable pieces, the time required for each piece and the entire project is estimated, resources are assigned to the work to be done, costs are budgeted, risks are identified, and risk management plans are set up, and many other activities



Project Life Cycle

Execute: This is the stage where the actual work is being executed. During the execution stage, the goal of project management is to keep the project on track and ensure that execution is done efficiently.



Project Life Cycle

Close: This stage entails activities to make the transition to the next phase (operations or another project), to establish formal closure in the eyes of the customer, and to review project successes and failures in order to learn for future projects

Project Life Cycle



3- Break-even analysis in decision making



Break-even analysis in decision making

Break-even:

- The point at which total sales equal total costs ($TR = TC$)
- The break-even point is an easy and effective way to know the feasibility of a project or any new process



Break-even analysis in decision making

Break-even analysis is based on variable costs and fixed costs

- **Variable costs:** such as the cost of labor, the cost of raw materials, and others
- **Fixed costs:** These are the costs that are fixed even if there is a change in the outputs, such as the rent of the building or the rent of tools and insurance and others.

Break-even analysis in decision making

$$\text{Break-even size} = Q = \frac{F}{P - V}$$

- At the **break-even point** $\rightarrow (TR=TC) \rightarrow$ no profit or loss
- Before the **break-even point** $\rightarrow (TR < TC) \rightarrow$ loss
- After the **break-even point** $\rightarrow (TR > TC) \rightarrow$ profit

Break-even analysis in decision making

$$\text{Break-even value} = Q * P$$

- Q= Break-even size
- P= Price per unit

• EX1:

Break-even analysis in decision making

- بفرض ان نقطة التعادل يرمز لها Q
- والتكاليف المتغيرة variable cost يرمز لها V
- والتكاليف الثابتة fixed cost يرمز لها F
- وسعر الوحدة يرمز لها P

مثال:

لنفترض ان احدى الشركات الخدمية تريد أن تضع خدمة جديدة بقيمة **200** جنية للعميل الواحد ولديها **تكاليف ثابتة بالسنة بقيمة 100,000** جنية، وأيضا لديها تكاليف متغيرة بقيمة **100** جنية للعميل الواحد، والشركة تريد أن تعرف ماهي نقطة التعادل في هذه الخدمة الجديدة؟ أي كم ينبغي لها على الأقل الحصول على عدد عملاء لتكون الخدمة مربحة ام لا؟

Break-even analysis in decision making

- The answer:

• أولا معادلة نقطة التعادل هي :

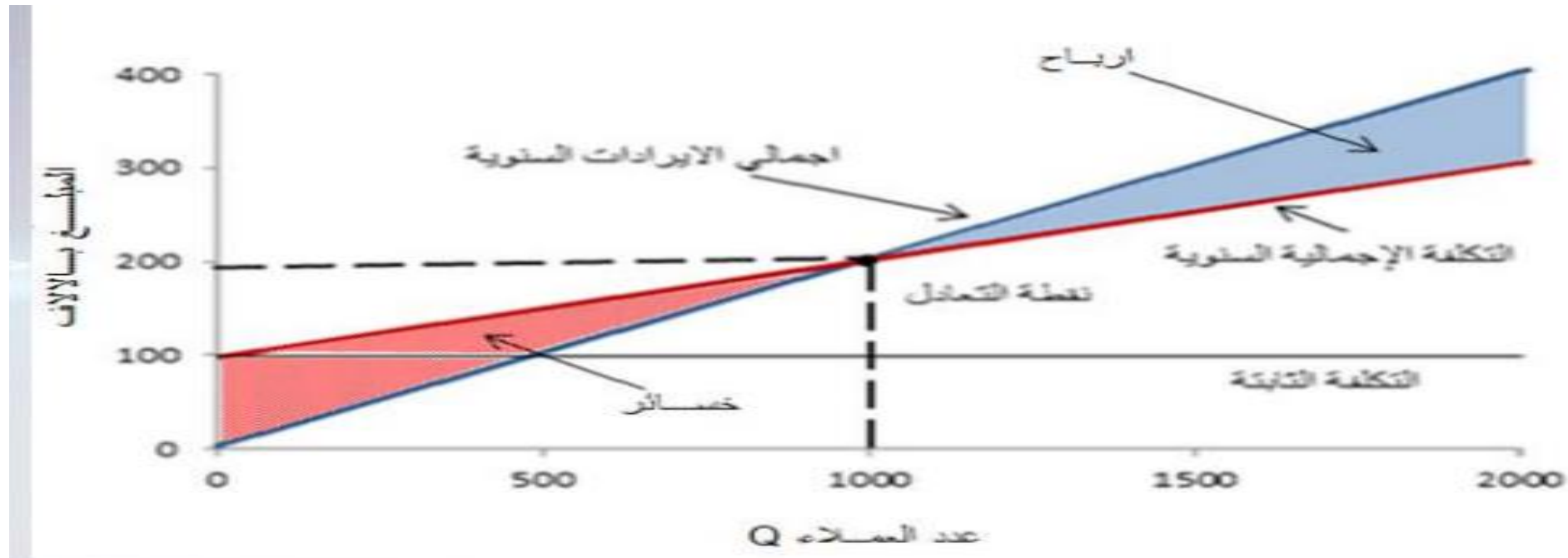
$$Q = F / (P - V)$$

• أي نقطة التعادل = التكاليف الثابتة / (سعر الوحدة – التكلفة المتغيرة للوحدة)

• نقطة التعادل = 100000 / (100-200) = 1000 عميل

Break-even analysis in decision making

- The answer:



Break-even analysis in decision making

From the previous figure, it is clear to us that:

- The **break-even point** is at 1000 customers with a price of 200, where there is **no profit or loss. (TR=TC)**
- That is, if the number of workers rises **above 1000**, there will be **profits, (TR>TC)**
- When the number of workers decreases to **less than 1000** customers, there will be **losses. (TR<TC)**
- Based on the results and the fee shown to us on this new service that will be provided, more than 1000 customers must be obtained for this new service to cross the break-even point to be profitable.

Break-even analysis in decision making

Ex 2 :

A Café has a place to sell its products in the city center.

- The average price of a cup of coffee is \$1.49 ($P = 1.49$)
- and the average variable cost is \$0.36. ($V = 0.36$)
- The average fixed cost is \$1,300 per month ($F = 1300$)
- on average What is the size, and value of break-even sales?

Break-even analysis in decision making

The answer:

$$Q = F / (P - V)$$

$$(0.36 - 1.49) / (1300) = \text{حجم مبيعات التعادل}$$

$$= 1150 \text{ كوب}$$

$$1713.50 = 1.49 * 1150 = \text{قيمة مبيعات التعادل}$$

جنيه

4- When is a project successful?



When is a project successful?

The traditional view of project success consists of **three parts** and is also called the iron triangle or triple constraint:

1. The project is executed **on time**.
2. The project is executed **within budget**.
3. The project produces an **outcome of high quality**. This consists of two dimensions:
 - **Product Scope:** What is the product supposed to do?
 - **Performance:** How well does the provided functionality work?



When is a project successful?

These three aspects of project success **are not independent of each other**.

On the contrary, typically improving one criterion implies delivering short on one of the other criteria

- e.g., if one wants to execute the same project in less time, one needs more resources (higher budget) or one has to lower the specifications of the deliverable.

Summary

- 1- Stages of project preparation and implementation plan**
- 2- Project Life Cycle**
- 3- Break-even analysis in decision making**
- 4- When is a project successful?**



Questions

Having technical ability to manage projects means-----

Existence of technical expertise specific to the project
Having a market need
Determine the time periods for completing the work.
All answers are correct

The detailed feasibility study for the project includes----

All answers are correct.
environmental study
Technical study
Economic study

Questions

Environmental feasibility study means-----

Is the project compatible with the environment?

What are the raw materials and what technological and artistic methods are used?

Does the project fill a certain size of the demand for the product?

Will the project achieve a reasonable profit margin in addition to costs?

Marketing feasibility study means-----

Does the project fill a certain size of the demand for the product?

Is the project compatible with the environment?

What are the raw materials and what technological and artistic methods are used?

Will the project achieve a reasonable profit margin in addition to costs?

Questions

Technical feasibility study means-----

What are the raw materials and what technological and technical methods are used?

Does the project fill a certain size of the demand for the product?

Is the project compatible with the environment?

Will the project achieve a reasonable profit margin in addition to costs?

Financial feasibility study means-----

Is the project's financial budget able to cover production costs?

Does the project fill a certain size of the demand for the product?

Is the project compatible with the environment?

Will the project achieve a reasonable profit margin in addition to costs?

Questions

Economic feasibility study means-----

Will the project achieve a reasonable profit margin in addition to costs?

Is the project's financial budget able to cover production costs?

Does the project fill a certain size of the demand for the product?

Is the project compatible with the environment?

The implementation and preparation phase includes----

All answers are correct.

Implementation of the project according to the schedule

Purchase and installation of machinery and equipment

Operational and production tests

Questions

Break-even point analysis based on-----

Variable costs and fixed costs

Only variable costs

Fixed costs only

Variable costs, fixed costs, and selling quantity

The traditional view of project success consists of -----

All answers are correct.

The project is executed on time.

The project is executed within budget.

The project produces an outcome of high quality.

Questions

The project life cycle starts from----

Initiation

Planning

Execution

Monitoring and controlling

The project life cycle ends by -----

closure

Initiation

Planning

Execution



Thank You