

Course Outline for Management undergraduate program

- **Course code** **MGMT3192**
- **Course Title** **Project Management**

Academic Year: 2020 Semester II

UNIT 2 :PROJECT CYCLE

INTRODUCTION

- A project life cycle represents the linear progression of a project, from defining the project through making a plan, executing the work, and closing out the project
- **Project cycle is the various stages through which project initiation and planning** process proceeds from identification to execution and then to monitoring and controlling and finally closing.
- It considers a various separable stages of activity which can be thought of as constituting a definite sequence in which each stage not only grown out of the preceding ones, but leads into the subsequent ones.

LEARNING OBJECTIVES

- After completing this unit, students will be able to:
- Understand the meaning and definition of project cycle.
- explain the World Bank Project Cycle
- Differentiate World Bank Project Cycle and UNIDO Project Cycle

Definition of project cycle.

- Is the stages through which the project passes from **initiation** to its closing.
- Is a continuous process made up of
 - separate stages each with its own characteristics and
 - complementary stages (phases) and each setting a ground for the next one.

Project Phases and Life Cycles: Definition

- Generally projects are **divided into multiple *project phases*** in order to improve management control.
- All projects are divided into phases, and all projects, large or small, have a similar life cycle structure.
 - At a minimum, a project will have a beginning or initiation phase, an intermediate phase or phases, and an ending phase.
- The number of phases depends on the project complexity and the industry.
- All the collective phases the project progresses through in concert are called the ***project life cycle***.

PROJECT LIFE CYCLE

- There are various models that deal with the project cycle

World Bank Project Cycle

The concept of the project cycle was first popularized by a World Bank publication by Warren Baum in 1970 with four elements (identification, preparation and analysis, appraisal and implementation) and evaluation was added in a later version in 1978.

1. Identification

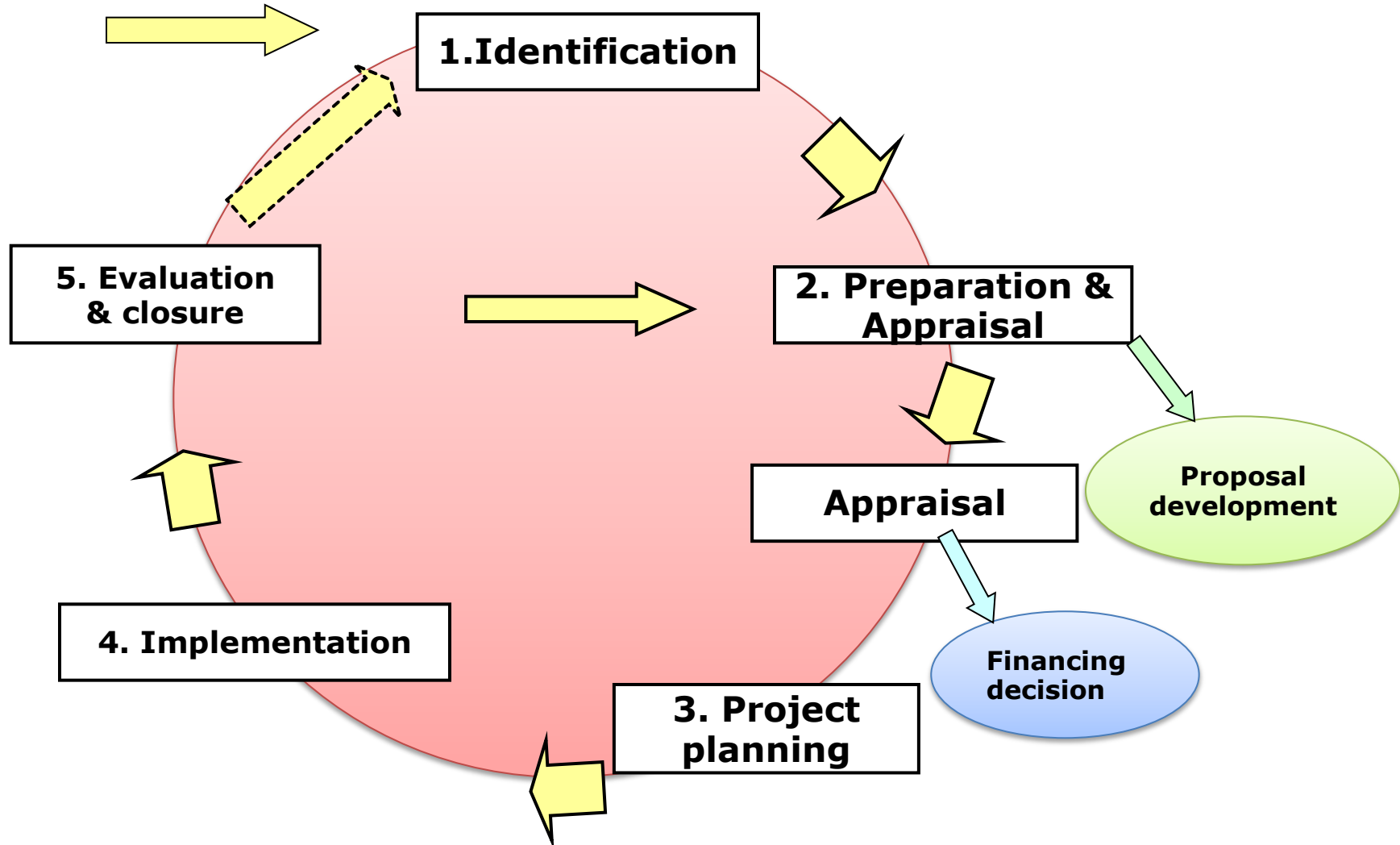
2. Preparation and analysis

3. Appraisal

4. Implementation

5. Evaluation

The project cycle



Project Phases

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|--------------------------|--|
| Identification | <p>Potential projects suggestions emerge from specialists, local leaders and national development strategies.</p> <p>Identification of potential stakeholders, particularly primary stakeholders.</p> <p>Carry out problem assessment and decide upon key objectives.</p> <p>Assess alternative strategies for meeting objective</p> |
| Preparation and analysis | <p>The technical, institutional, economic, environmental, and financial issues facing the project studied and addressed — including whether there are alternative methods for achieving the same objectives.</p> <p>Assessing feasibility as to whether and determining whether to carry out more advanced planning. Project plan developed which can be appraised</p> |

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| Appraisal | Critical review or independent appraisal of project plan. |
| Implementation | <p>The project plan is implemented over a specified time period.</p> <p>Monitoring of project performance with a management information system to enable correction of implementation problems as they arise.</p> |
| Evaluation | <p>Evaluation is a time-bound exercise that attempts to assess the relevance, performance and success of current or completed projects, systematically and objectively. Evaluation determines to what extent the intervention has been successful in terms of its impact, effectiveness, sustainability of results, and contribution to capacity development. Evaluation, more than monitoring, asks fundamental questions on the how and why of the overall progress and results of an intervention in order to improve</p> |

UNIDO Project Cycle

United Nations Industrial Development Organization

1. The pre investment phase,

- Project identification
- Project preparation
- Appraisal & investment decision

2. Investment phase, and

- Acquisition phase
- Commissioning phase
- Test production & marketing phase

3. Operational phase.

Project Cycle According to UNIDO (United Nation Industrial Development Organization)

1. pre-investment studies (project identification)

α **_Opportunity Studies/Project Identification:**

- α Availability of natural resources
- α Existing agricultural pattern
- α Future demand for goods, increasing population, purchasing power
- α Exports and import substitution
- α Environmental impact assessment
- α Functioning similar project of other countries
- α Possible linkages with other industries

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- # Extension by backward and forward linkage
- # Industrial policies
- # General input climate of economy
- # Expansions to an existing project to have large scale of economy
- # Export potential
- # Availability and cost of production factors

These opportunity studies can be categorized as area studies, industry studies and resources based studies

b. Pre-feasibility studies/pre-selection:

- ✓ To analyze that:
 - All possible alternatives examined
 - The project concept justifies detailed analysis
 - A critical area necessitates in-depth investigation
 - Project idea is either attractive for investment or non-viable
 - The environment situation at the site in line with national standards
- Support functional studies to convert specific areas such as:
 - marketing
 - Raw material and factory supplies
 - laboratory and Oliphant testing
 - location
 - Environmental impact assessment
 - Economics of scale and
 - Equipment selection

C. Feasibility study/preparation

- # Feasibility study should provide all data, define and critically examine the commercial, technical, financial, economic and environmental aspects for each alternative.
- # The data should be based on investigated efforts rather than on guess.
- # A window dressing approach should be avoided.

d. Appraisal report/Appraisal:

- * The appraisal report will prove whether the pre-production expenditures were well spent, project appraisal as carried out by financial institutions concentrates on the health of the company to be financed, the returns obtained by equity holders and the protection of its creditors.
- * Appraisal reports as a rule deal with the industries in which it will be carried out and its implications for the economy as a whole.

2. Investment phase

- The investment phase can be divided in to the following stages.
 - Establishing the legal, Financial and organization basis
 - Technology acquiring and transfer
 - Detailed engineering design and contracting
 - Pre-production marketing, including the securing of supplies and setting up the administration of the firm.
 - Recruitment and training of personnel
 - Plant commissioning and start- up

3. Operating phase

- The problems of the operational phase need to be considered from both a short and a long term view point.
- The short term view relates to initial period after commencement of production.
- Most of the problems have their origin in the implementation phase.
- The long-term view relates to chosen strategies and the associated production and marketing costs as well as sales reviews.

Phase-to-Phase Relationships

- There are three basic types of phase – to – phase relationships :
- **A Sequential relationship : where a phase can only start once the** previous phase is complete
- **An Overlapping relationship : where the phase starts prior to** completion of the previous one (Fast tracking). Overlapping phase may increase risk and can result in rework .
- **An Iterative relationship : where only one phase is planned at any** given time and the planning for the next is carried out as work progresses on the current phase and deliverables

Development Indicators and their Use within EC

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|---------------------------|---|
| Input Indicators | Measure the financial, administrative and regulatory resources provided by the Government and donors. It is necessary to establish a link between the resources used and the results achieved in order to assess the efficiency of the actions carried out. |
| Output Indicators | Measure the immediate and concrete consequences of the measures taken and resources used: E.g.: Number of schools built, number of teachers trained |
| Outcome Indicators | Measure the short-term results at the level of beneficiaries. The term 'results indicators' is used as well. E.g.: School enrolment, percentage of girls among the children entering in first year of primary school |
| Impact Indicators | They measure the long-term consequences of the outcomes. They measure the general objectives in terms of national development and poverty reduction. E.g.: Literacy rates |

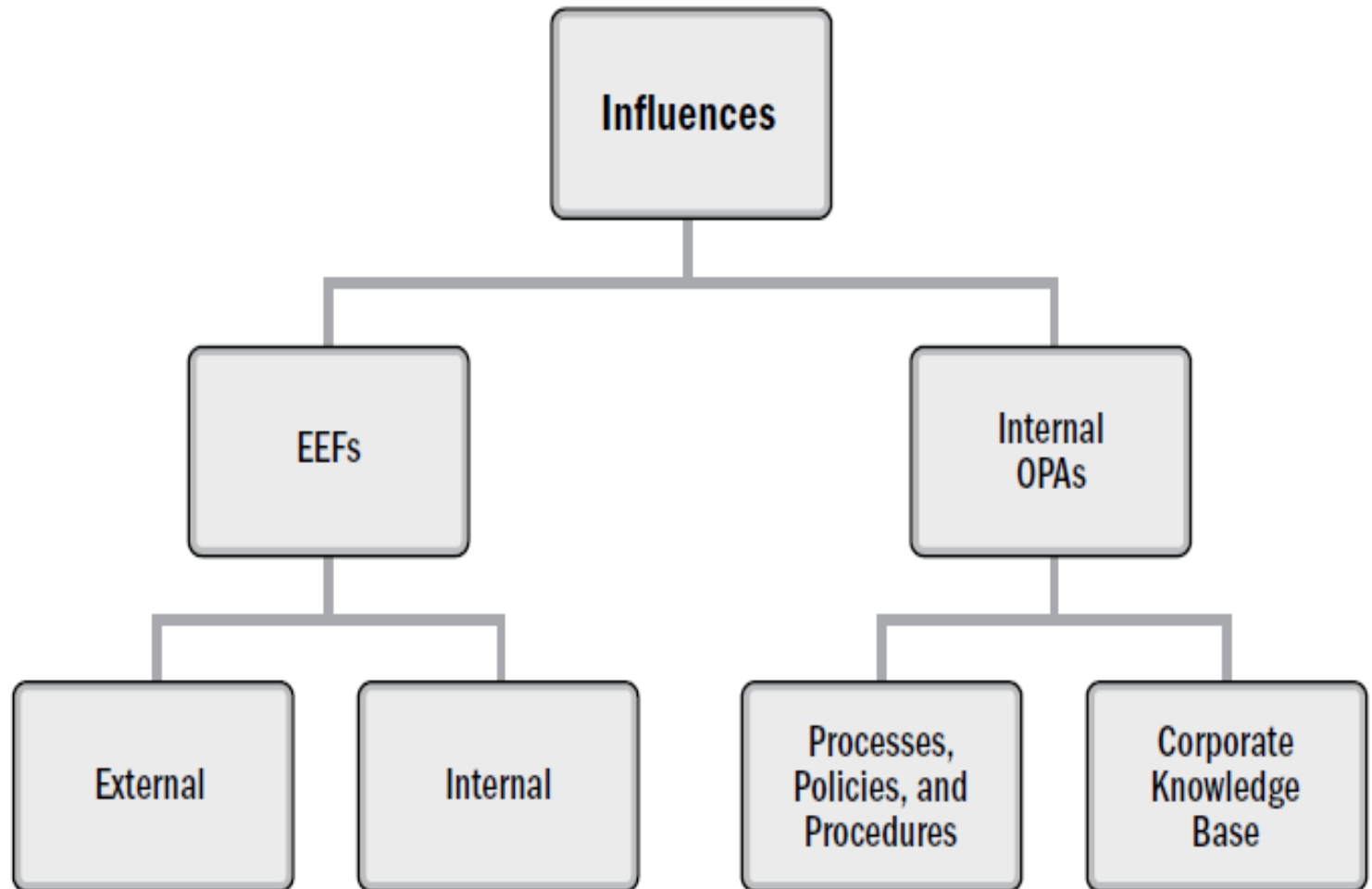
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- Output indicators would be located at the level of Activities, as they are direct consequences of Activities implemented,
- Outcome indicators correspond to indicators at the level of the Results in a Logical Framework,
- Impact indicators are measures at the level of the Purpose and the Overall Objectives (one could distinguish between initial and long-term impact).

Project Environment Management

- Projects exist and operate in environments that may have an influence on them. These influences can have a favorable or unfavorable impact on the project. Two major categories of influences are enterprise environmental factors (EEFs) and organizational process assets (OPAs).
- EEFs originate from the environment outside of the project and often outside of the enterprise. EEFs may have an impact at the organizational, portfolio, program, or project level.
- OPAs are internal to the organization. These may arise from the organization itself, a portfolio, a program, another project, or a combination of these. The following figure shows the breakdown of project influences into EEFs and OPAs.

Project Influences



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- Therefore, In addition to EEFs and OPAs, organizational systems play a significant role in the life cycle of the project. System factors that impact the power, influence, interests, competencies, and political capabilities of the people to act within the organizational system will be discussed.

EEFS INTERNAL TO THE ORGANIZATION

EEFs include but are not limited to the following factors:-

The following EEFs are **internal** to the organization:

- 1. Organizational culture, structure, and governance.**
- 2. Geographic distribution of facilities and resources.**
- 3. Infrastructure.**
- 4. Information technology software.**
- 5. Resource availability.**
- 6. Employee capability.**

EEFS INTERNAL TO THE ORGANIZATION

- 1. Organizational culture, structure, and governance.** Examples include vision, mission, values, beliefs, cultural norms, leadership style, hierarchy and authority relationships, organizational style, ethics, and code of conduct.
- 2. Geographic distribution of facilities and resources.** Examples include factory locations, virtual teams, shared systems, and cloud computing.
- 3. Infrastructure.** Examples include existing facilities, equipment, organizational telecommunications channels, information technology hardware, availability, and capacity.

EEFS INTERNAL TO THE ORGANIZATION

- 4. Information technology software.** Examples include scheduling software tools, configuration management systems, web interfaces to other online automated systems, and work authorization systems.
- 5. Resource availability.** Examples include contracting and purchasing constraints, approved providers and subcontractors, and collaboration agreements.
- 6. Employee capability.** Examples include existing human resources expertise, skills, competencies, and specialized knowledge.

EEFS EXTERNAL TO THE ORGANIZATION

The following EEFs are external to the organization.

- 1. Marketplace conditions.**
- 2. Social and cultural influences and issues.**
- 3. Legal restrictions.**
- 4. Commercial databases.**
- 5. Academic research.**
- 6. Government or industry standards.**
- 7. Financial considerations.**
- 8. Physical environmental elements.**

EEFS EXTERNAL TO THE ORGANIZATION

The following EEFs are external to the organization.

- 1. Marketplace conditions.** Examples include competitors, market share brand recognition, and trademarks.
- 2. Social and cultural influences and issues.** Examples include political climate, ethics, and perceptions.
- 3. Legal restrictions.** Examples include country or local laws and regulations related to security, data protection, business conduct, employment, and procurement.
- 4. Commercial databases.** Examples include benchmarking results, standardized cost estimating data, industry risk study information, and risk databases.

EEFS EXTERNAL TO THE ORGANIZATION

- 5. Academic research.** Examples include industry studies, publications, and benchmarking results.
- 6. Government or industry standards.** Examples include regulatory agency regulations and standards related to products, production, environment, quality, and workmanship.
- 7. Financial considerations.** Examples include currency exchange rates, interest rates, inflation rates, tariffs, and geographic location.
- 8. Physical environmental elements.** Examples include working conditions, weather, and constraints.

ORGANIZATIONAL PROCESS ASSETS

- OPAs are inputs to many project management processes.
- Since OPAs are internal to the organization, the project team members may be able to update and add to the organizational process assets as necessary throughout the project.
- They may be grouped into two categories:
 1. Processes, policies, and procedures; and
 2. Organizational knowledge bases.

1. Processes, policies, and procedures

The organization's processes and procedures for conducting project work include but are not limited to:

- **Initiating and Planning**
- **Executing, Monitoring, and Controlling**
- **Closing**

2. Organizational Knowledge Repositories

The organizational knowledge repositories for storing and retrieving information include but are not limited to:

- Configuration management knowledge repositories
- Financial data repositories
- Historical information and lessons learned knowledge repositories
- Project files from previous projects

Activity

By taking an elementary school construction project of your environment

Short list the series of activities to be involved from its project idea generation up to implementation. Classify these activities under

1. Identification
2. Preparation and analysis
3. Appraisal
4. Implementation
5. Evaluation