PROJECT APPRAISAL AND INVESTMENT ANALYSIS

LECTURER 2

PROJECT LIFECYCLE

PLC- WHAT IS PROJECT?

- Project, as defined in PMBOK, is a temporary endeavor undertaken to create a unique product service or result.
- All project vary in complexity but they all follow similar lifecycle.
- All projects have deliverables (means always produce something)
  - Developing a new product or service
  - Constructing a building or facility
  - Renovating the kitchen
  - Designing a new transportation vehicle
  - Acquiring a new or modified data system
  - Organizing a meeting
  - Implementing a new business process

TYPES OF PROJECT

- Manufacturing Projects
- Construction Projects
- Management Projects
- Research Projects

TYPES OF PROJECT

- **Manufacturing** is the production of products for use or sale using labor and machines, tools, chemical or biological processing or formulation and is the essence of secondary industry. The term may refer to a range of human activity from handicraft to high tech but is most commonly applied to industrial design, in which raw materials from primary industry are transformed into finished goods on a large scale.
- **Construction** is the organized process of constructing, renovating, refurbishing, etc. A building, structure or infrastructure.

TYPES OF PROJECT

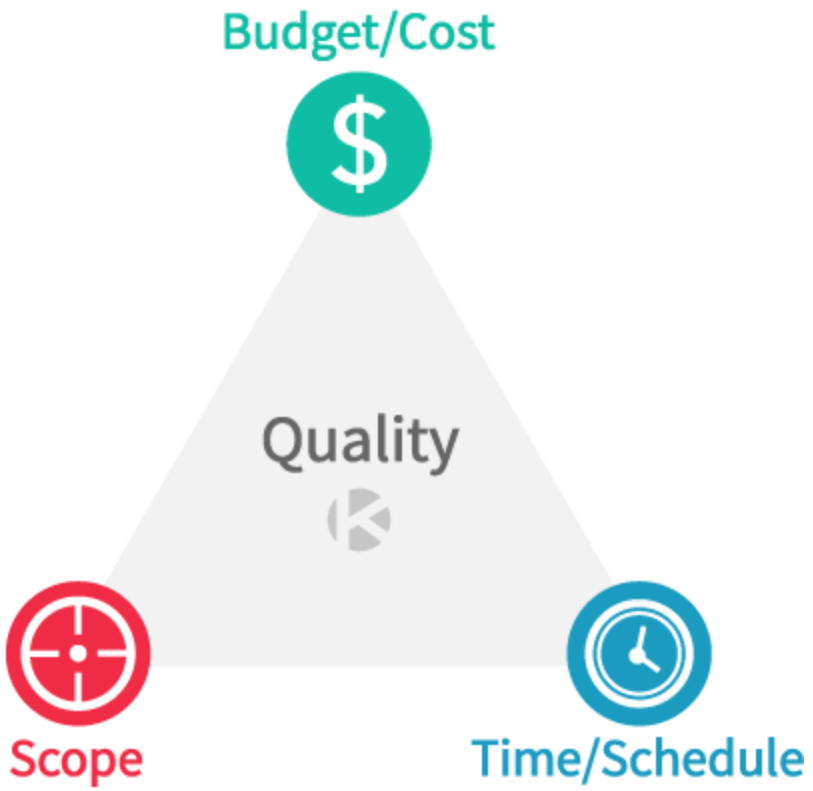
- **Management projects** include the organization or reorganization of work without necessarily producing a tangible result. Examples would be the design and testing of a new computer software package, relocation of a company's headquarters or the production of a stage show.
- **Research projects** in which the objectives may be difficult to establish, and where the results are unpredictable.

PROJECT DIMENSIONS

Time

Scope

Budget/Cost



PROJECT DIMENSIONS

- **Scope:** The scope of a project determines what exactly is to be delivered. E.g, the final result must satisfy the requirements of the end user. Considering a project to develop a racing car, the objectives must be to produce a vehicle that satisfies specified standards for performance, Reliability and safety.
- **Time:** Every project has a target deadline. Project managers usually derive the project timeline based on how long each project task is estimated to be done. E.g the car should be fully developed and proven in time for launch at the motor show.

PROJECT DIMENSIONS

Cost: Understanding the target cost allocation and its limits are important to the success of any project.

- Staff salaries
- Implementation of new technologies
- Upstream suppliers increasing costs
- Changes in scope that adds on to the project deliverables
- Balancing the Project Management Triangle
- Projects must, therefore, be completed within their budgeted costs.

PLC-PROJECT LIFECYCLE

Project lifecycle is a series of phases of a project from initiation completion.

The life cycle gives a practical approach to problem solving applied to all aspects of project.

PLC-PROJECT LIFECYCLE

In the early phases of a project life cycle:

- Resource needs are usually lowest.
- The level of uncertainty (risk) is highest.

In the middle phases of a project life cycle:

- The certainty of completing a project increases.
- More resources are needed.

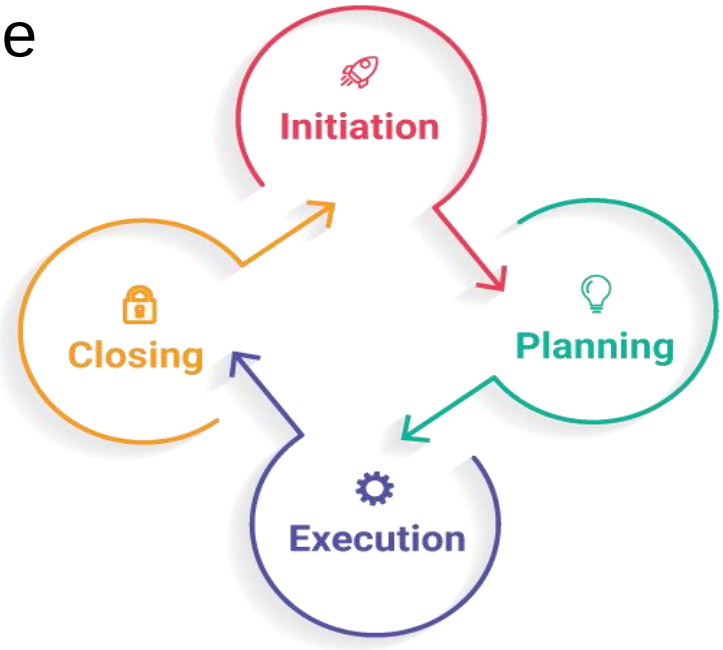
In the final phase of a project life cycle:

- The focus is on ensuring that project requirements were met.
- The sponsor approves completion of the project

PLC-PROJECT LIFECYCLE

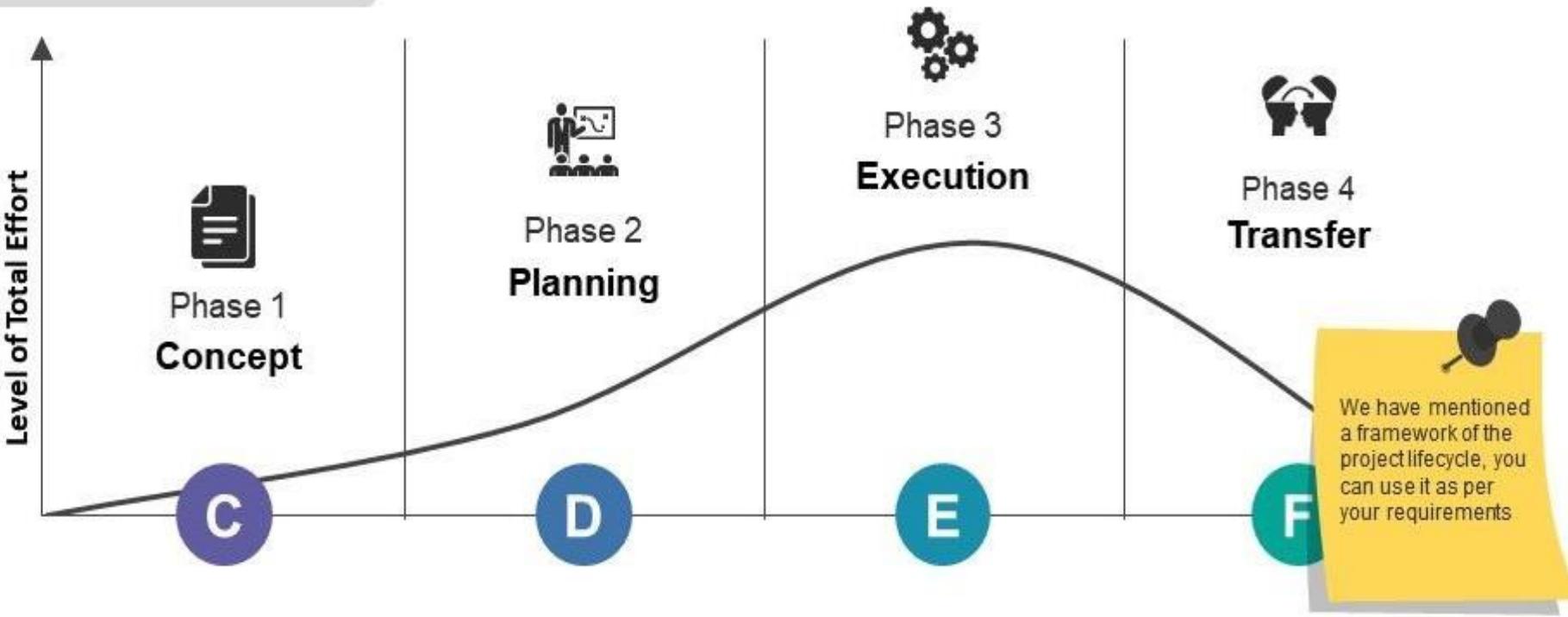
A project life cycle typically has 4 major phases:

- Initiation Phase
- Planning Phase
- Implementing/ Execution Phase
- Closure Phase



Project Management Lifecycle

Timeline



(Conceive)

- Identify Need
- Establish Feasibility
- Look for alternatives
- Present the proposal
- Approval to proceed

(Develop)

- Develop the plan
- Assess the risk factors
- Allocate budget
- Present the project brief
- Obtain approval

(Execute)

- Design review
- Quality assurance
- Control
- Verify the performance results
- Do modifications
- Progress monitoring
- Forecasting and reporting
- Deliver the project

(Finish)

- Reviews & acceptance
- Issues management
- Re-assign remaining tasks
- Project closing

PLC-PROJECT LIFECYCLE

- **Initiation:** The project need is identified in the initiation phase. It signals the start of a project.
- **Planning:** The phase where the project solution is further explored and necessary to achieve their goals.
- **Implementation:** Project plan is put into action. This phase is when people are carrying out the tasks of their plan.
- **Closure:** The final closing of all project processes and handing over deliverables to the customer.

PLC- INITIATION PHASE

- The first phase explores the project concept.
- Scope is define during this phase.
- Project Charter is developed for approval. Feasibility studies are made in order to identify if there is a business need and justification to pursue the project.
- This is the phase that the project team is assembled and the project manager is identified.

PLC- PLANNING

- This phase further details the scope of the project.
- Tasks and resources are identified and assigned during this phase.
- Project manager coordinates the preparation of the schedule and project budget.
- Risk are identified ahead to anticipate any project threats.
- Development if the quality plan. And communication plan in order to ensure that everyone is constantly informed of project status.

PLC- IMPLEMENTATION/ EXECUTION

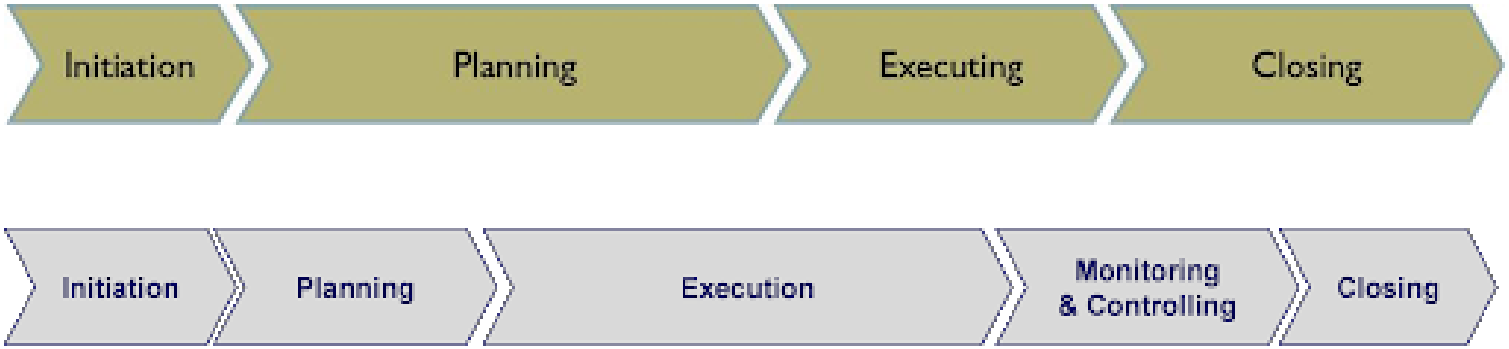
- The phase where the work outlined in the project plan is performed.
- This phase consumes the most resources and energy.
- Constant and close monitoring of the work should be done to ensure efficiency of the project execution.
- Status reports are important for all stakeholders.
- Deliverables are measured against the set metrics to ensure quality is acceptable.

PLC- CLOSURE

- The last phase of PLC involves handing over final deliverables to the customers.
- Contracts are properly terminated for equipment, vendors and staff.
- All stakeholders are to be informed of project closure.
- This phase is when the team reviews the overall project and identify lessons learned for future projects.

PLC- PROCESSES

- Process are the tasks and the methodologies that occur within a phase.
- Although they sound like phases, but they are not.



Two Common Views of Project Life Cycle (the second one even include Monitor & Control as a stage)

ECONOMICS AND FINANCIAL ANALYSIS

Financial and economic analyses have similar features. Both estimate the net-benefits of a project investment based on the difference between the with-project and the without-project situations.

The basic difference between them is that:

- The financial analysis compares benefits and costs to the enterprise.
- While on the other hand the economic analysis compares the benefits and costs to the whole economy.

ECONOMICS AND FINANCIAL ANALYSIS

Economic analysis is concerned with the true value a project holds for the society as a whole. It includes all members of society, and measures the project's positive and negative impacts. In addition, economic analysis would also cover costs and benefits of goods and services that are not sold in the market and therefore have no market price.

ECONOMICS AND FINANCIAL ANALYSIS CONT.

Financial and Economic analyses are essentially used to determine the costs incurred and the resulting benefits from investing in a project. They both involve ascertaining the NPV or the net present value of a project based on its estimated present and future cash flows, appropriately discounted. Both techniques, however, differ in their implications and hence also in what is defined as a cost and a benefit.

ECONOMICS AND FINANCIAL ANALYSIS

Differences:

There are two more significant differences between financial and economic analysis:

- While financial analysis uses market prices to check the balance of investment and the sustainability of a project,
- Economic analysis uses economic prices that are converted from the market price by excluding tax, profit, subsidy, etc. to measure the legitimacy of using national resources to certain projects.

ECONOMICS AND FINANCIAL ANALYSIS

Financial Analysis is largely confined to individual organizations or their units. It involves a fairly quantitative, fund-based approach that directly compares the expenses and revenues from a venture to determine profitability and hence sustainability. Such evaluation may often employ the financial statement of an enterprise – the balance sheet, the income statement and the cash flow statement.

ECONOMICS AND FINANCIAL ANALYSIS

Economic Analysis, on the other hand, takes a much wider view and entails the impact of a project on society as a whole. It considers the viewpoints of all stakeholders and how the results of a project align with the broader economic and social policies as well as the International scenario. The costs in an economic analysis are a measure of the resources that a society collectively invests for the fulfillment of the project. The benefits, however, need not be just monetary and often include intangible benefits.

ECONOMICS AND FINANCIAL ANALYSIS

What is Financial & Economic Analysis?

For instance, consider an oil drilling company evaluating an independent project – the setting up a new well. If the present value of the annual cash flows were to exceed the initial investment and other costs such as taxes, possible interest payments and operational expenses, the project would be looked upon favorably. Additionally, the firm might also look at the project's effect on its financial ratios to be certain about feasibility.

ECONOMICS AND FINANCIAL ANALYSIS

In the above oil well case, for instance, the economic analysis deals with not just the profits from an industry perspective. Instead, negative externalities such as pollution, displacement and deforestation are treated as costs awhile positive externalities such as employment generation which is considered benefits. Determining a quantitative measure of such factors remains a challenge

ECONOMICS AND FINANCIAL ANALYSIS

Conclusion:

A study of financial feasibility versus economic feasibility can help develop a further understanding of the two topics. Financial feasibility is based strictly on profitability and sustainability. A financially feasible project, therefore, might not be economically viable if the overall impact on society is negative. On the contrary, an economically viable project may not always be financially sustainable. The government may, however, choose to take up such a project by supplying additional funds, owing to its positive impact on society.

REFERENCES

https://kanbanzone.com/2019/key-project-dimensions/