Project Selection

Non-Numeric Project Selection Models

- Sacred Cow
- Operating Necessity
- Competitive Necessity
- Product Line Extension
- Comparative Benefit Model
- Q-Sort Model

Project Selection

Non-Numeric Project Selection Models

- Sacred Cow

The project is created as a result of whatever the boss has proposed. The sacredness of the project reflects the fact that it will be continued until ended or until the boss himself announces the failure of the idea & ends it.

Project Selection

Non-Numeric Project Selection Models

- Operating Necessity

Structural systemic threats to the continued operation of the organization. Some capitol cost projects such as equipment replacement due to breakage, identified environmental threats (flood, fire)

Operating necessity projects are automatically high priority as a failure to act threatens the life of the organization. (Existential threat)

Project Selection

Non-Numeric Project Selection Models

- Competitive Necessity

Changes in the marketplace drive an internal operational shift. These projects are undertaken to maintain or improve an existing competitive advantage.

Operational Necessity takes priority over Competitive Necessity although both should be top of any priority list as they address external threats.

Project Selection

Non-Numeric Project Selection Models

- Product Line Extension

Projects are considered to expand an existing product offering. This can be done to increase market share or share of wallet.

Careful consideration should be made to ensure that the proposed extension fits within both the existing business model and its strategy.

Project Selection

Non-Numeric Project Selection Models

- Comparative Benefit Model

This selection model is used to assess which of several potential projects will be undertaken. This model presumes a project *will* be undertaken and is used to compare the candidates against each other.

A key fault is the presumption. Using this model should always include 'none' as a viable option.

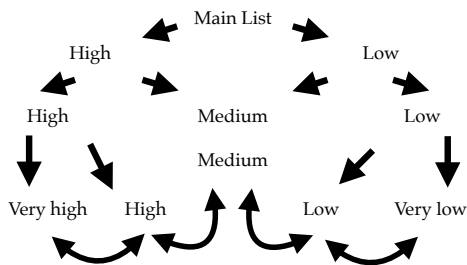# Project Selection

Non-Numeric Project Selection Models

- Q-Sort Model

This model is used when you have an abundance of potential project candidates. There are several steps, but it's not complicated and is based on a simple binary 'High/Low' assessment of each project. It is repeated through several steps to sort the projects.

Project Selection

Non-Numeric Project Selection Models

- Q-Sort Model

Main List

High — Low

High — Medium — Low

Medium

Very high — High — Low — Very low

Project Selection

Financial Project Selection Models

- Payback Period
- Average Rate of Return
- Discounted Cash Flow
- Internal Rate of Return (IRR)
- Profitability Index

Project Selection

Financial Project Selection Models

- Payback Period

Initial investment (cost of project) divided by the number of periods (years) to assess return.

$100 000 / 4 years = $25 000/yr or 25%/year.
Faster, or higher percentage is better.

Project Selection

Financial Project Selection Models

- Average Rate of Return

Based on profit of the organization, not an individual project. If overall profits are 20 000:
$100 000 / 4 years = $25 000/yr (From Payback model)

$20 000 / $100 000 = .2

NOTE: Neither 'Payback Period' nor 'Ave Rate of Return' deal with 'Time Value of Money' (Inflation)

Project Selection

Financial Project Selection Models

- Net Present Value (Discounted Cash Flow)

Suppose a project has an initial investment of $100,000. It has a net cash inflow of **$25,000 per year** for a period of eight years. The required rate of return for the project is 15% with an inflation rate of **3%**.

(Don't get hung up on doing the math here. If you require more than a superficial understanding of this model or the terms, reach out after class or discuss in the forum.)

Project Selection

Financial Project Selection Models

- Internal Rate of Return

An extension of the previous Net Present Value that can get mathematically complicated as it is assessed using proposed cash **in** & **out** flows.

Applicable to organizations who's products are individual projects and cash in from one project can be used to offset the costs of a second concurrent project.

Project Selection

Financial Project Selection Models

- Profitability Index

Net present value of *all* future expected cash flows divided by the initial investment is referred to as the profitability index. The profitability index is also called the benefit-cost ratio. The project may be accepted if this ratio is higher than 1.0.

$100 000 project cost. Returns $20 000/yr for five years. Ratio = 1.

Project Selection

Financial Project Selection Models

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Project Selection

You have lists.
- Shopping lists
- Chores/Tasks/To-Do
- Honey-do

By default, is it just a list? Is there any order to it?

Do you start your day crossing off the easy ones on the list to give yourself a sense of accomplishment?

Project Selection

Task Prioritization

	High Importance	Low Importance
High Urgency		
Low Urgency		

If you ran your 'chores' list through this process, would the order change?

Project Selection

Project Prioritization

	Low Risk	High Risk
High Reward		
Low Reward		

Project selection is the process of assessing both the ROI (reward) and the risk of failure.

If faced with a multitude of projects, they should be prioritized.

Some projects become a 'Go/No Go' decision.

Project Selection

What does 'Project Risk' look like?

Qualitative Risk Analysis
Qualitative risk analysis is the process of prioritizing risks for further analysis or action. You do this by determining each risk's likelihood or probability of occurring, as well as rating its impact on the project.

Quantitative Risk Analysis
Quantitative risk analysis is a statistical analysis of the effect of those identified risks on the overall project. This helps team leaders to make decisions with reduced uncertainty, and supports the process of controlling risks.

Project Selection

Risk Impact

Through qualitative and quantitative risk analysis, you can define the potential risks by determining impacts to the following aspects of your project:

- Activity resource estimates
- Activity duration estimates
- Schedule
- Cost estimates
- Budget
- Quality
- Procurements