

PROJECT MANAGEMENT IOM455
SESSION 3
JANUARY 25, 2010

OUTLINE

- Questions?
- Take roll
- Last homework answers ~~X~~
- ✓ • Homework assignment
- Projects Selection continued
 - Review last week
- Chapter 2 - Project Manager and Organizations

*One o'clock
On Wednesday*

*One document
grades up Tonight*

Strategic Management and Selection

- **Project Selection Models**
 - **Non-numerical**
 - **Numerical**
 - **Payback Period**
 - **Average rate of return**
 - **Discounted cash flow**
 - **Weighted Scoring models**
- **Risk Analysis and simulation**

Non-numeric models

- **Sacred Cow** – pushed by powerful person
- **Operating necessity** – not selecting it will make it impossible to operate
- **Competitive necessity** – won't be able to compete without it
- **Product line extension** – increases market share
- **Comparative Benefit** – match to goals and budget

$$NPV \geq 0$$

$$RR = 20\%$$

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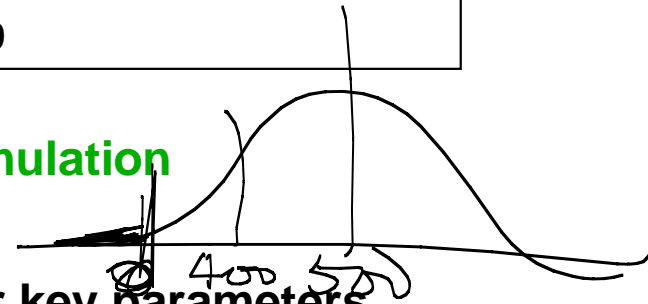
MARR - min. alt. rate of return 20%

Numeric Models

if $NPV > 0$ then do the project Rate of Return $\rightarrow 20\%$

- Payback period (Years) – Total Cost/Net annual cash inflow $\rightarrow 20\%$
- Average Rate of return – Average annual profit/Total Cost
- Discounted Cash flow (Net Present Value NPV) – Sum of yearly cash flows, adjusted for time with a discount rate less the initial investment
- Internal Rate of Return (IRR) – Discount rate that equates the present value of cash inflows and outflows
- Recommendation – NPV!

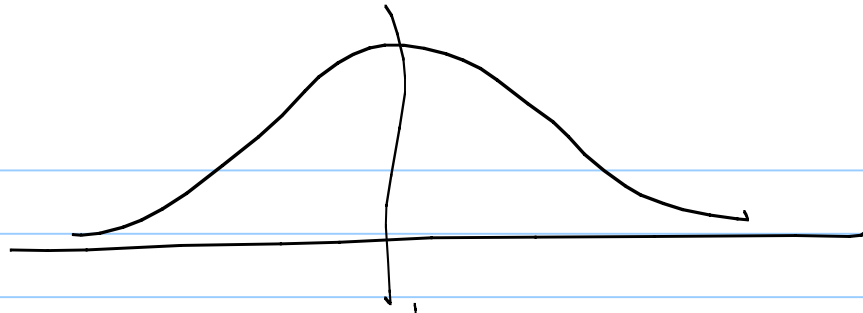
Risk Analysis and Simulation



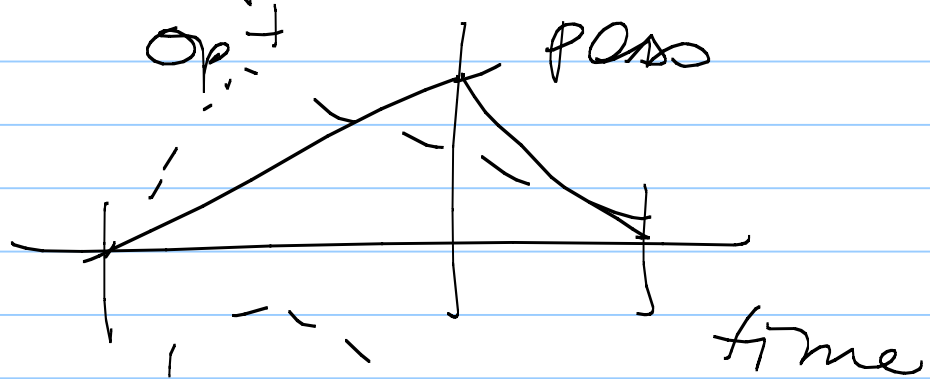
- Assume probability distributions for key parameters
- Construct a model for NPV using these parameters
- Select specific values for each parameter from its distribution
- Calculate NPV
- Repeat many times
- Examine probability distribution of NPV
- Assess probability of success
- **The only way to fly!! (You probably don't know this, but it was Western Airlines' slogan)**

NPV avg 500
Std dev 400

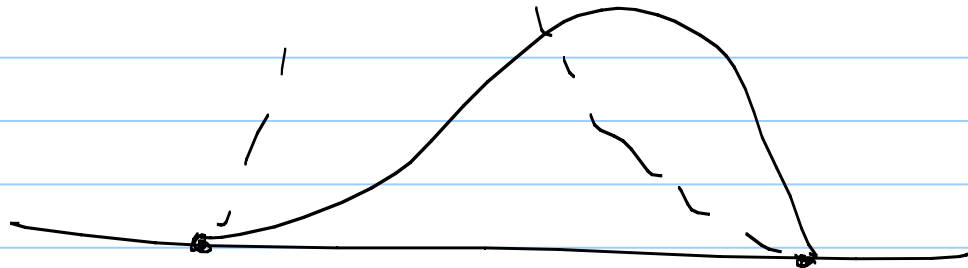
Normal



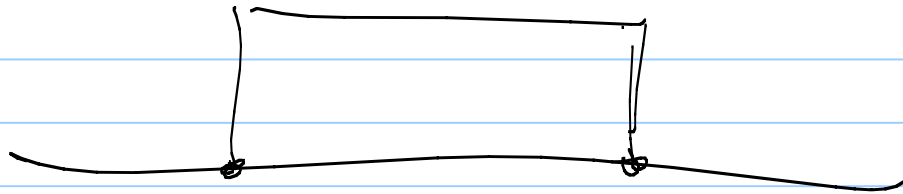
Triangular



Beta



Uniform



Risk Analysis and Simulation (cont)

- **Probability distributions**
 - **Uniform**
 - **Normal**
 - **Triangular**
 - **Beta**
- **Assessing probability**

Project Proposal Process Example

- **Corporate Manufacturing Technology Investments**
- **Top down – Corporation specifies total amount**
- **Bottoms up**
 - **Individual plants create list of project**
 - **Groups of plants (divisions) prioritize projects**
 - **Division representatives prioritize together**
- **Top down/Bottom up made consistent (Guess who gets their most of their way)**

Chapter 2 Project managers and organizations

- How do functional managers differ from project managers?

successful
oriented to function
periodic time line
formal hierarchy
permanent
follow routine
technical

not always
overall organization
focus
one time
work across dept.
temporary
flexible
generalist

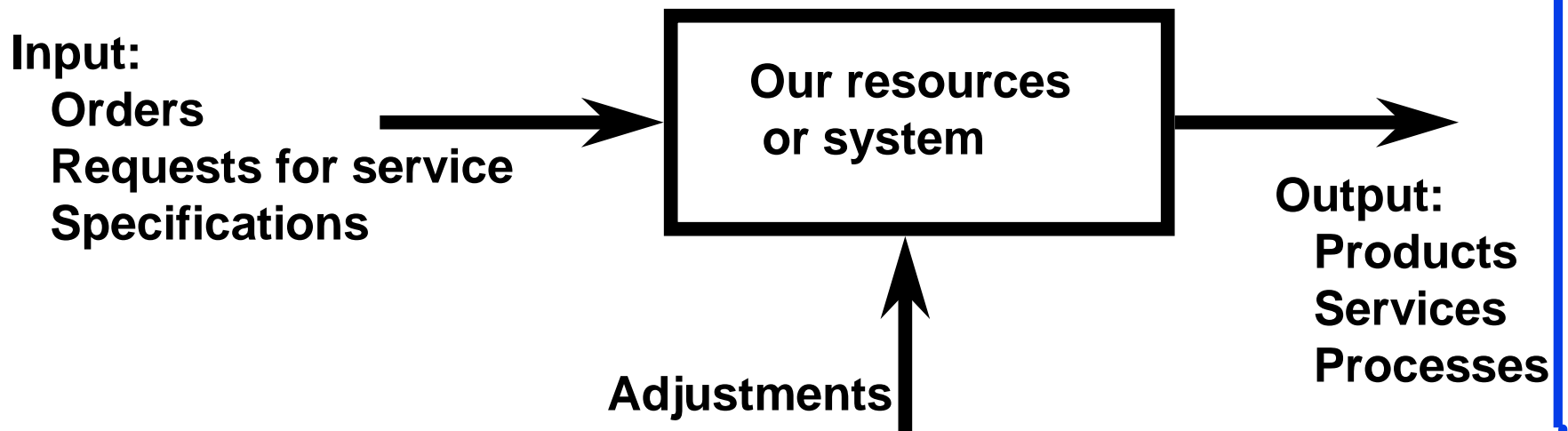
Chapter 2 Project managers and organizations

- **How do functional managers differ from project managers?**
- **Specialist in an area – Generalist**
- **Analytical approach – Systems approach (see next page)**
- **Direct supervisor – mainly a facilitator**
- **Manage individuals and technology – manages the project**

Project	Business Process
Temporary	Permanent
Unique output	Same output each time that it is run
No predefined work assignments	Predefined work assignments

Systems

- When we are in the business of running projects, of providing a product or a service, we can view the operation as an open system with inputs and outputs
-



• allocate work

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• make tradeoffs

• Take responsible

Responsibilities of a project manager

- Budget (create)
- Get resources
- manage conflict
- hire the right people
- get it done on time
- Get people to cooperate
- Communicate with client and ^{SR} management

Responsibilities of a project manager

- Organize
- Staff
- Budget
- Plan → your given project *rough budget* Specifications
- Direct
- Control
- Communication ✓
- Categorized into
 - responsibility to the parent organization
 - responsibility to the client
 - responsibility to the project team

Career paths

- Where do project managers come from? IOM
leaders in dept.
Every where
technical area

- Where do project managers go? To Top

- What kinds of training should project managers get?

Certification
Experience
Communication
School

Seminars
work many departments
conflict management

Earns Respect Meticulous

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Good with
deadlines

Desirable skills and traits

Patient
Motivated
Organized
Communicator
Cool
Works well with people
Multitasker
Negotiator

Ethical

Leadership Qual
Team dynamics
Analytical
Big picture

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Desirable skills and traits

- **Drive to complete a task**
- **Interpersonal leadership skills**
- **Oral and written communication skills**
- **Big picture perspective**
- **Political sensitivity**
- **Delegator**
- **Problem solving orientation**
- **Optimistic, can-do attitude**
- **Planner mentality**
- **Committed to continuous improvement**
- **Technical credibility**
- **Administrative credibility**
- **Strong sense of ethics**
- **Handle stress**

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Input from working project manager – Top Five

- 1) Big picture perspective (Always remember the project's end goals/objectives and not get side tracked or delayed by detailed issues to use a quote from the original Star Wars Movie "Stay on Target")
- 2) Optimistic, can-do attitude (Believe that you will succeed in meeting the project's end goals/objectives)
- 3) Problem solving attitude (Understand that unexpected problems will arise, and be willing to work through them to hopefully a win/win scenario)
- 4) Planner mentality (Prioritize and time sequence tasks per resource and time constraints - not everything should be worked simultaneously nor completed at the same time)
- 5) Oral and written communication skills (All of the other skills/traits depend on the PM's ability to communicate with the customer, senior management, and the project team)

Demands on the project manager

- **Acquire adequate resources**
- **Motivate personnel**
- **Deal with obstacles**
- **Making trade-offs**
- **Deal with uncertainty and risk**
- **Constant communication**
- **Skilled negotiation**