PSU Problem Solving Process

1. Position
2. Sense
3. Uncover
4. Solve
5. Build
6. Achieve

Build A Business Case

- What is a business case?
  - A formal presentation of the problem solution/s that have been developed
  - Reviewed by some sort of decision making authority
  - Solid logic
  - Supporting evidence
  - A good test to see whether you need more research

Who Does It?

- The problem solving team or a representative subset
  - Diversity is good
  - A range of stakeholders
- Activities
  - In-depth outcome analysis
  - Short and long term consequences
  - Review adherence to Mission/Vision/Values

First – Ethical Screening

- Is the solution ethical? What does ethical mean? How would you define ethics?
  - Ethics – a system of values that people use to determine whether actions are:
    - right or wrong
    - fair or unfair
    - moral or immoral
  - Business ethics - the application of ethical standards to business behavior.
Values Versus Ethics

- Test it against business values. What is a value?
  - A principle, standard or quality considered worthwhile or desirable.
  - Values contribute to our system of beliefs, ideas and opinions.
  - A value is a core from which we operate.
  - Business values are beliefs, business principles and ways of doing things that govern company operations and the behavior of organization members.

Corporate Values

- Are the values real or published?
  - Enron valued:
    - Communications
    - Respect
    - Integrity
    - Excellence
  - What did they really value (at least some of the senior management)?
    - Money and profit – at the expense of customers, shareholders and employees.

Corporations As Citizens

- Analyze your solution based on a broader set of societal ethical principles
- Consider all of the stakeholders
  - Customers
  - Suppliers
  - Competitors
  - Communities and societies

Encouraging Ethical Behavior

- How can you encourage ethical behavior?
  - Define and communicate ethical standards
  - Educate and train
  - Case discussions and exercises
- Is unethical behavior always conscious and explicit?
  - Bounded ethicality – people sometimes act in ways that are inconsistent with their ethical standards
  - Identify and understand psychological tendencies in order to better guarantee ethical behavior
Making Ethical Decisions

- Are ethical and legal the same thing?
  - Legality is the lowest common denominator
- Four tests of your decision:
  - Is my solution the best thing for the most people?
  - What if everyone did what I want to do? What kind of a world would it be?
  - Am I treating others the way I would want to be treated?
  - What if my decision were advertised on a billboard?

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Presenting The Case

- What are some of the questions you might get asked when you are making a recommendation?
  - What will it cost?
  - What are benefits?
  - How long will it take?
  - Who's going to do it?
  - What's likely to go wrong?
  - Who do we blame when it does?

Cost/Benefit Analysis

- It's a tool that will help you decide whether it's worth implementing your solution.
  - You may have already done it while comparing different alternatives, or…
  - You will include it in your “case” as support for your recommendation
- Key questions that it will answer
  - Do the benefits outweigh the costs?
  - Is it worth the time and money to implement
  - Simply put – add up the value of the benefits of a course of action, and subtract the costs.
Cost/Benefit Analysis

- CBA is most often applied to complex, large scale projects – but can be applied carefully to others.
- Evaluation and analysis can be as much art as science.
  - Estimates often rely on past projects, experience of the project members, and rules of thumb. Team members may also be biased.
- It can be difficult to compare one-time and long term (periodic) costs and benefits.
  - Consider payback time.
  - Determine a timeframe for the analysis.
- You should consider both tangible and intangible costs and benefits.

Types Of Costs & Benefits

- Tangible
  - Concrete and easily quantifiable
  - Ongoing versus one-time (present value)
  - For example – the cost of my new tractor was a one-time financial cost.
- Intangible
  - Difficult to measure, and almost impossible to measure precisely:
    - Employee satisfaction, customer satisfaction.
  - Relative values and crude measurements are often the best you can get – but often good enough for business decisions.
  - For example – Sheryl won’t worry about me as much on the new tractor with a roll bar and seat belts!

Tangible Versus Intangible

- Common Claim
  - If you can’t measure it, it doesn’t exist.
- Reality
  - Costs are typically tangible, hard and financial.
  - Benefits are hard and tangible, but also often soft and intangible.
  - Be careful – often intangible will outweigh the tangible – especially in strategic decisions.

Here’s An Example

- The scenario:
  - Small, neighborhood copy shop owner
  - The question?
    - Should he remain open until 11 PM, or should he close an hour earlier
  - What data does he need?
    - Costs of operating during that last hour
    - How much money he makes in that last hour
Tangible Costs

- Types of costs
  - Electricity for lights and equipment
  - The cost of heat
  - The assistant manager’s salary
  - If he closes at 10, he saves all this money
- Cost of that last hour - $23.00

Tangible Benefits

- What is his profit in the last hour (based on the cost of making the copy – not counting electricity, etc.).
  - 460 copies in that last hour times 5.5 cents profit per copy
  - He makes $25.30
  - Is it worth it?

What are some intangibles?

- Employee satisfaction – Assistant Manager can be with family at night.
- Employee safety – higher crime at night.
- Customer satisfaction – occasionally a key customer needs copies at night.

Another Example

- Scenario:
  - A sales director is deciding whether to implement a new computer-based contact management system.
  - He doesn't have many computers and his salespeople are not that computer literate.
  - He knows that he can increase contact numbers and give better customer service with the system. Efficiency will be improved.
  - What should he do?
Tangible Costs

- New computers:
  - 10 with software @ $1,225 each
  - 1 server @ $1,750
  - 3 printers @ $600 each
  - Cabling and installation @ $2,300
  - Sales Support Software @ $7,500
- Training Costs:
  - Computer introduction – 8 people @ $200 each
  - Keyboard skills – 8 people @ $200 each
  - Sales Support System – 12 people @ $350 each
- Other Costs:
  - Lost time: 40 man days @ $100 per day
  - Lost sales through disruption: estimated @ $10,000
  - Lost sales through first month inefficiency: estimated @ $10,000

Tangible Benefits

- Tripling of mail shot capacity: estimated @ $20,000 per year.
- Ability to sustain telesales campaigns: estimated @ $10,000 per year.
- Improved efficiency and reliability of follow-up: estimated at $25,000 per year.
- Improved customer service and retention: estimated @ $15,000 per year.
- Improved accuracy of customer information: estimated @ $5,000 per year.
- More ability to manage the sales operation: estimated @ $15,000 per year.

Results

- Total cost: $57,000
- Total benefits: $90,000 per year
- Payback time: $57,000/$90,000 = 8 months
- Even though the estimate of benefits can be subjective – given the short payback time, it would be a good decision

What Are The Intangibles?

- Personnel discomfort with a new system.
- General organizational disarray with new procedures and processes.
- Happier, more organized salespeople.
- Employee attitudes about management investment in personnel.
- Others?
Cost/Benefit Summary

- Cost/Benefit analysis is a powerful, widely used and relatively easy tool for deciding to implement a decision.
- First, work out how much the decision will cost (don’t forget opportunity costs).
- Where costs or benefits will be received over time – work out the time it will take for the benefits to outweigh the costs.

Feasibility Analysis

- The solution may have merit, but can you do it – is it feasible?
- Dimensions of analysis:
  - Economic, organizational, technological, and legal.
  - For example – economically, do you have the budget and cash flow to handle the solution?
  - Operationally, do you have the people or the expertise to implement the solution?
  - Technologically, maybe the technology required won’t be ready in time.
  - Legally, make sure the solution doesn’t oppose existing contracts or legal agreements.

Activity 5.2

- Read the scenario – student considering a job in Phoenix. Go or stay – do a Cost/Benefit Analysis.
- Determine a time frame – 2 years, 3 years, more?
- Brainstorm all tangible and intangible costs and benefits – determine which is the best option.
- Follow the instructions in the Activity Handout.

Activity 5.2

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