Segment 3: Feasibility Study & Cost-Benefit Analysis

STRATEGIC PLANNING OVERVIEW

To gain competitive advantages, IT managers must understand and participate in the firm's strategic planning process. ***Strategic planning*** is the process of identifying long-term organizational goals, strategies, and resources. Strategic planning looks beyond day-to-day activities and focuses on a horizon that is 3, 5, 10, or more years in the future.

Strategic planning starts with a management review called a ***SWOT analysis***. A SWOT analysis is a solid foundation for the strategic planning process, because it examines a firm's technical, human, and financial resources.

The letters stand for strengths, weaknesses, opportunities, and threats. A SWOT analysis usually starts with a broad overview. The first step is for top management to respond to questions like these:

A. What are our strengths, and how can we use them to achieve our business goals?
B. What are our weaknesses, and how can we reduce or eliminate them?
C. What are our opportunities, and how do we plan to take advantage of them?
D. What are our threats, and how can we assess, manage, and respond to the possible risks?

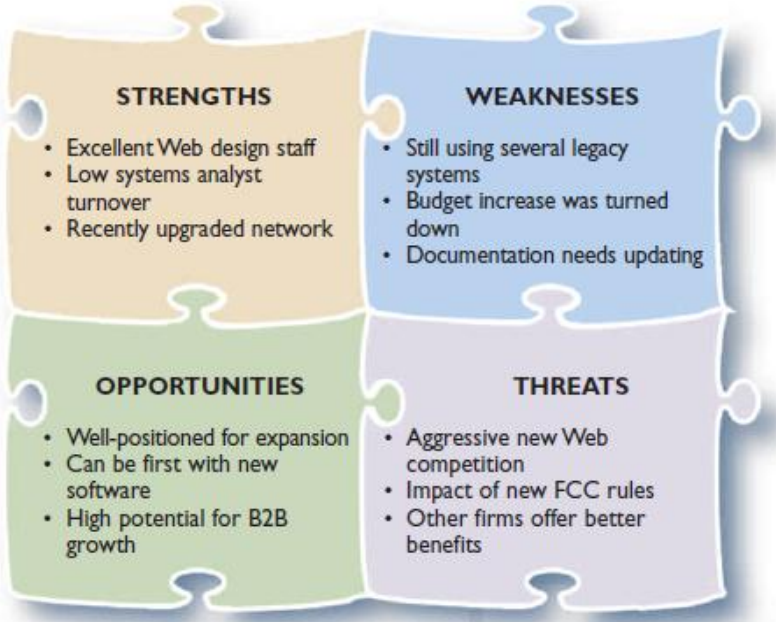

Figure: A SWOT analysis might produce results similar to those shown here.

PROJECT

A project is a temporary endeavor designed to produce a unique product, service or result with a defined beginning and end (usually time-constrained, and often constrained by funding or deliverables) undertaken to meet unique goals and objectives, typically to bring about beneficial change or added value.

MAIN REASONS FOR SYSTEMS PROJECTS

- The starting point for most projects is called a ***systems request***, which is a formal way of asking for IT support.
- The main reasons for systems requests are improved service to customers, better performance, support for new products and services, more information, stronger controls, and reduced cost.

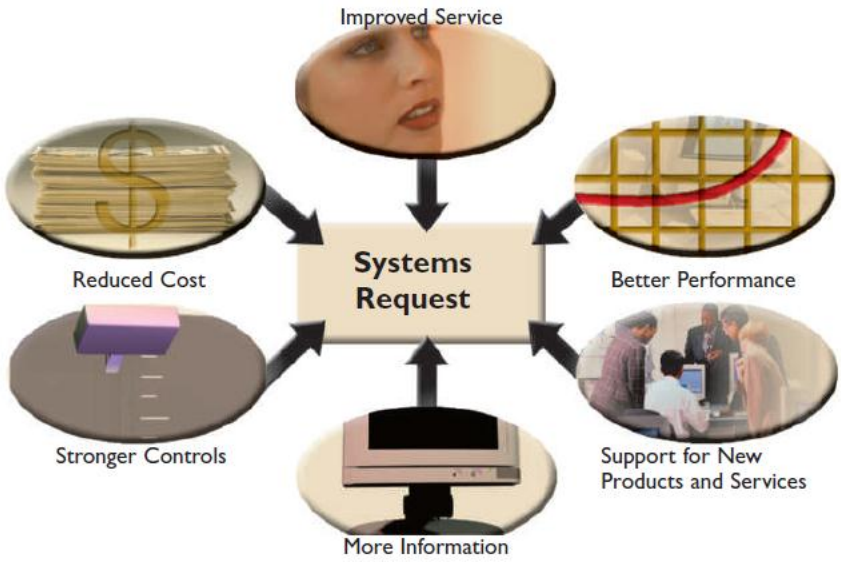

Figure: Six main reasons for systems requests.

1. ***Improved Service*:** Systems requests often are aimed at improving service to customers or users within the company. Allowing mutual fund investors to check their account balances on a Web site.
2. ***Support for New Products and Services*:** New products and services often require new types or levels of IT support. For example, a software vendor might offer an automatic upgrade service for subscribers.
3. ***Better Performance*:** The current system might not meet performance requirements. For example, it might respond slowly to data inquiries at certain times.
4. ***More Information*:** The system might produce information that is insufficient, incomplete, or unable to support the company's changing information needs. For example, a system that tracks customer orders might not be capable of analyzing and predicting marketing trends.
5. ***Stronger Controls*:** A company needs effective controls to ensure that data is secure and accurate. Some common security controls include passwords, various levels of user access, and encryption. Hardware-based security controls include biometric devices that can identify a person by a retina scan or by mapping a facial or finger pattern.
6. ***Reduced Cost*:** The current system could be expensive to operate or maintain as a result of technical problems, design weaknesses, or the changing demands of the business. Cost-benefit analysis might show that a new system would be more cost effective and provide better support for long-term objectives.

FACTORS THAT AFFECT SYSTEMS PROJECTS

Internal and external factors affect every business decision that a company makes, and IT systems projects are no exception. The below shows the main internal and external factors:

Figure: Internal and external factors that affect IT systems projects.

(A) Internal Factors

1. *Strategic plan*: A company's strategic plan sets the overall direction for the firm and has an important impact on IT projects. Company goals and objectives that need IT support will generate systems requests and influence IT priorities.
2. *Top managers*: Directives from top managers are a prime source of large-scale systems projects. Those directives often result from strategic business decisions that require new IT systems.
3. *User requests*: As users rely more heavily on information systems to perform their jobs, they are likely to request even more IT services and support. An online system that allows customers to obtain the status of their orders instantly. Or, users might not be satisfied with the current system because it is difficult to learn or lacks flexibility.
4. *Information technology department*: Many systems project requests come from the IT department. Such as proposing a new reporting or data collection system.
5. *Existing systems and data*: Errors or problems in existing systems can trigger requests for systems projects.

(B) External Factors

1. *Technology:* Changing technology is a major force affecting business and society in general.
2. *Suppliers:* With the growth of electronic data interchange (EDI), relationships with suppliers are critically important. EDI also enables **just-in-time** (**JIT**) inventory systems, as shown in Figure 2-11, which rely on computer-to-computer data exchange to minimize unnecessary inventory. The purpose of a JIT system is to provide the right product at the right place at the right time
3. *Customers:* Many companies implement customer relationship management (CRM) systems that integrate all customer-related events and transactions, including marketing, sales, and customer service activities.
4. *Competitors:* Competition drives many information systems decisions. For example, if one cellular telephone provider offers a new type of digital service, other firms must match the plan in order to remain competitive.
5. *The economy:* Economic activity has a powerful influence on corporate information management.
6. *Government:* Federal, state, and local government regulations affect the design of corporate information systems.

PROJECT MANAGEMENT

Project management is the discipline of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria.

BASIC PHASES OF PROJECT MANAGEMENT

The remainder will focus on the project management process, which involves four phases:
1. Initiating the project
2. Planning the project
3. Executing the project
4. Closing down the project

Phase 1: Project Conception and Initiation

During project initiation the project manager performs several activities that assess the size, scope, and complexity of the project, and establishes procedures to support subsequent activities. There are four project initiation activities:

1) *Establishing the Project Initiation Team*: This activity involves organizing an initial core of project team members to assist in accomplishing the project initiation activities.
2) *Establishing the Project Initiation Plan:* This step defines the activities required to organize the initiation team while it is working to define the scope of the project.
3) *Establishing the Project Management Environment and Project Workbook:* The focus of this activity is to collect and organize the tools that you will use while managing the project and to construct the project workbook. project workbook is an online or hard-copy repository, for all

project correspondence, inputs, outputs, deliverables, procedures, and standards, that is used for performing project audits, orienting new team members, communicating with management and customers, identifying future projects, and performing postproject reviews.

4) *Developing the Project Charter:* The project charter is a short (typically one-page), high-level document prepared for the customer that describes what the project will deliver and outlines many of the key elements of the project. A project charter can vary in the amount of detail it contains, but often includes the following elements:
   - ✓ Project title and date of authorization
   - ✓ Project manager name and contact information
   - ✓ Customer name and contact information
   - ✓ Projected start and completion dates
   - ✓ Project description and objectives
   - ✓ Key assumptions or approach
   - ✓ Key stakeholders, roles, responsibilities, and signatures

Phase 2: Project definition and planning

The next step in the project management process is project planning. Project planning involves defining clear, discrete activities and the work needed to complete each activity within a single project. There are ten project planning activities:

1) *Describing project scope, alternatives, and feasibility:* In this step, one of the first meetings must focus on defining a project's scope. The next objective is to identify and document general alternative solutions for the current business problem or opportunity. Then, assess the feasibility of each alternative solution and choose which to consider during subsequent SDLC phases.

2) *Dividing the project into manageable tasks:* Here, you must divide the entire project into manageable tasks and then logically order them to ensure a smooth evolution between tasks.

3) *Estimating resources and creating a resource plan*: The goal of this activity is to estimate resource requirements for each project activity and use this information to create a project resource plan. The resource plan helps assemble and deploy resources in the most effective manner

4) *Developing a preliminary schedule:* Time estimates will allow you to create target starting and ending dates for the project. Target dates can be revisited and modified until a schedule produced is acceptable to the customer.

5) *Developing a communication plan:* The communication plan includes when and how written and oral reports will be provided by the team, how team members will coordinate work, what messages will be sent to announce the project to interested parties, and what kinds of information will be shared with vendors and external contractors involved with the project.

6) *Identifying and assessing risk:* The goal of this activity is to identify sources of project risk and to estimate the consequences of those risks. Risks might arise from the use of new technology, prospective users' resistance to change, competitive reactions or changes in regulatory actions due to the construction of a system, or team member inexperience with technology or the business area.

7) *Creating a preliminary budget:* During this phase, you need to create a preliminary budget that outlines the planned expenses and revenues associated with your project.

8) *Developing a project scope statement.* The project scope statement is developed primarily for the customer, this document outlines work that will be done and clearly describes what the project will deliver. The project scope statement is useful to make sure that you, the customer, and other project team members have a clear understanding of the intended project size, duration, and outcomes.

9) *Setting a baseline project plan:* Once all of the prior project planning activities have been completed, you will be able to develop a *baseline project plan*. This baseline plan provides an estimate of the project's tasks and resource requirements and is used to guide the next project phase— execution.

Phase 3: Project execution

Project execution puts the baseline project plan into action. Within the context of the SDLC, project execution occurs primarily during the analysis, design, and implementation phases. There are five project planning activities:

1) *Executing the baseline project plan:* As project manager, you oversee the execution of the baseline plan—that is, you initiate the execution of project activities, acquire and assign resources, orient and train new team members, keep the project on schedule, and ensure the quality of project deliverables.

2) *Monitoring project progress against the baseline project plan:* While you execute the baseline project plan, you should monitor your progress. If the project gets ahead of (or behind) schedule, you may have to adjust resources, activities, and budgets. Monitoring project activities can result in modifications to the current plan.

3) *Managing changes to the baseline project plan:* You will encounter pressure to make changes to the baseline plan. It is recommended that only approved changes to the project specification can be made, and all changes must be reflected in the baseline plan and project workbook, including all charts.

4) *Maintaining the project workbook:* Maintaining complete records of all project events is necessary. The workbook provides the documentation new team members require to assimilate project tasks quickly. It explains why design decisions were made and is a primary source of information for producing all project reports.

5) *Communicating the project status:* The project manager is responsible for keeping all team members—system developers, managers, and customers - abreast of the project status. Clear communication is required to create a shared understanding of the activities and goals of the project; such an understanding ensures better coordination of activities. This means that the entire project plan should be shared with the entire project team, and any revisions to the plan should be communicated to all interested parties so that everyone understands how the plan is evolving.

Phase 3: Project Closure

The focus of project closedown is to bring the project to an end. Projects can conclude with a natural or unnatural termination. A natural termination occurs when the requirements of the

project have been met—the project has been completed and is a success. An unnatural termination occurs when the project is stopped before completion. There are three project planning activities::

1) *Closing down the project:* During closedown, you perform several diverse activities. You will likely be required to assess each team member and provide an appraisal for personnel files and salary determination. You may also want to provide career advice to team members, write letters to superiors praising special accomplishments of team members, and send thank-you letters to those who helped but were not team members. As project manager, you must be prepared to handle possible negative personnel issues, such as job termination, especially if the project was not successful. When closing down the project, it is also important to notify all interested parties that the project has been completed and to finalize all project documentation and financial records so that a final review of the project can be conducted.
2) *Conducting postproject reviews:* Once you have closed down the project, final reviews of the project should be conducted with management and customers. The objective of these reviews is to determine the strengths and weaknesses of project deliverables, the processes used to create them, and the project management process. It is important that everyone understands what went right and what went wrong, in order to improve the process for the next project.
3) *Closing the customer contract:* The focus of this final activity is to ensure that all contractual terms of the project have been met. At this stage, it is paramount that you gain agreement from your customer that all contractual obligations have been met.

FEASIBILITY ANALYSIS

Feasibility analysis guides the organization in determining whether to proceed with the project. Feasibility analysis also identifies the important *risks* associated with the project that must be managed if the project is approved. As with the system request, each organization has its own process and format for the feasibility analysis, but most include techniques to assess three areas: technical feasibility, economic feasibility, and organizational feasibility. The results of evaluating these six feasibility factors are combined into a *feasibility study* deliverable that is submitted to the approval committee at the end of project initiation. So, The feasibility study allows us to preview the potential outcome and to decide whether they should continue.

Technical feasibility

- The technical feasibility assessment is focused on gaining an understanding of the present technical resources of the organisation and their applicability to the expected needs of the proposed system.
- It is an evaluation of the hardware and software and how it meets the need of the proposed system.

Economic feasibility

- The purpose of the economic feasibility assessment is to determine the positive economic benefits to the organization that the proposed system will provide.
- It includes quantification and identification of all the benefits expected. This assessment typically involves a cost/ benefits analysis.
- Economic feasibility is also called cost-benefit analysis.

Operational Feasibility

Operational feasibility refers to the measure of solving problems with the help of a new proposed system. It helps in taking advantage of the opportunities and fulfills the requirements as identified during the development of the project. It takes care that the management and the users support the project.

Other feasibility analysis:

Schedule feasibility

- A project will fail if it takes too long to be completed before it is useful. Schedule feasibility is a measure of how reasonable the project timetable is.
- Schedule feasibility is to assess the duration of the project whether it is too long to be complete before it is useful. System analysts have to estimate how long the system will take to develop, and whether all potential timeframes and the completion date schedules can be met, as well as whether meeting these date will sufficient for dealing with the needs of the organization.
- When assessing schedule feasibility, a systems analyst must consider the interaction between time and costs.

Legal feasibility

Determines whether the proposed system conflicts with legal requirements, e.g. a data processing system must comply with the local data protection regulations and if the proposed venture is acceptable in accordance to the laws of the land.

Political Feasibility

Political feasibility is to gain an understanding of how key stakeholders within the organization view the proposed system. The new information systems may affect the distribution of power and can have political ramification. Therefore, those stakeholders not supporting the project may block or disrupt the project.

CASH FLOW ANALYSIS AND MEASURES IN ECONOMIC FEASIBILITY ANALYSIS *(COST–BENEFIT ANALYSIS)*

IT projects commonly involve an initial investment that produces a stream of benefits over time, along with some ongoing support costs. Therefore, the value of the project must be measured over time. Cash flows, both inflows and outflows, are estimated over some future period. Then, these cash flows are evaluated using several techniques to judge whether the projected benefits justify incurring the costs.

A very basic cash flow projection is shown in below figure to demonstrate these evaluation techniques. In this simple example, a system is developed in Year 0 (the current year) costing $100,000. Once the system is operational, benefits and ongoing costs are projected over three years. In row 3 of this figure, net benefits are computed by subtracting each year's total costs from its total benefits. Finally, in row 4, we have computed a cumulative total of the net cash flows.

		Year 0	Year 1	Year 2	Year 3	Total
	Total Benefits		45,000	50,000	57,000	152,000
	Total Costs	100,000	10,000	12,000	16,000	138,000
③	Net Benefits (Total Benefits – Total Costs)	(100,000)	35,000	38,000	41,000	14,000
④	Cumulative Net Cash Flow	(100,000)	(65,000)	(27,000)	14,000	

Figure: Simple Cash Flow Projection

There are some common methods for evaluating a project's worth can now be determined. Each of these calculations will be explained here:

Return on Investment:

- The return on investment (ROI) is a simple calculation that divides the project's net benefits (total benefits - total costs) by the total costs. The ROI formula is:

$$\text{ROI} = \frac{\text{Total Revenue- Total Cost}}{\text{Total Cost}}$$

$$\text{ROI} = \frac{152{,}000 - 138{,}000}{138{,}000}$$

- A high ROI suggests that the project's benefits far outweigh the project's cost.
- ROI is commonly used in practice; however, it is hard to interpret and should not be used as the only measure of a project's worth.

Break-Even Point:

- The break-even point (also called the payback method) is defined as the number of years it takes a firm to recover its original investment in the project from net cash flows.
- As shown in row 4 of above figure, the project's cumulative cash flow figure becomes positive during Year 3, so the initial investment is "paid back" over two years plus some fraction of the third year.

$$\text{BEP} = \begin{matrix}\text{Number of}\\ \text{years of}\\ \text{negative}\\ \text{cash flow}\end{matrix} + \frac{\text{That year's Net Cash Flow} - \text{That year's Cumulative Cash Flow}}{\text{That year's Net Cash Flow}}$$

Using the values in Figure 1-8, the BEP calculation is:

$$\text{BEP} = 2 + \frac{41{,}000 - 14{,}000}{41{,}000} = 2 + \frac{28{,}000}{41{,}000} = 2.68 \text{ years}$$

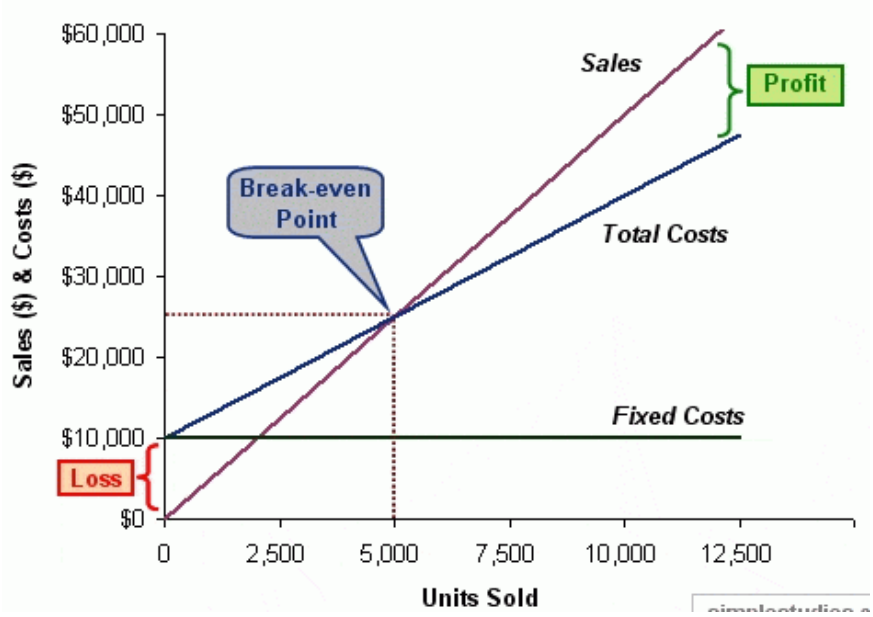

Figure: Break-Even Analysis

Discounted Cash Flow Technique:

- In the previous two analyses, the timing of cash flows is ignored. A dollar in Year 3 of the project is considered to be exactly equivalent to a dollar received in Year 1
- Discounted cash flows are used to compare the present value of all cash inflows and outflows for the project in today's dollar terms.
- If you have a friend who owes you $100 today, but instead gives you that $100 in three years—you've been had! Assuming you could have invested that dollar at a 10% rate of return, you'll be receiving the equivalent of $75 in today's terms.
- The basic formula to convert a future cash flow to its present value is:

$$PV = \frac{C}{(1+i)^n}$$

Where C is Cash flow amount, r is rate of return (required rate of return), and n is the year in which the cash flow occurs.

- Using our previous illustration, $100 received in 3 years with a required rate of return of 10% has a PV of $75.13

$$\text{PV} = \frac{100}{(1 + .10)^3} = \frac{100}{1.331} = 75.13$$

- The present value of the projected benefits and costs have been calculated using a 10% required rate of return.

	Year 0	Year 1	Year 2	Year 3	Total
Total Benefits		45,000	50,000	55,000	
PV of Total Benefits		40,909	41,322	42,825	125,056
Total Costs	100,000	10,000	12,000	16,000	
PV of Total Costs	100,000	9,091	9,917	12,021	131,029

Net Present Value (NPV):

The NPV is simply the difference between the total present value of the benefits and the total present value of the costs.

NPV = ∑ PV of Total Benefits - ∑PV of Total Costs
= $125,056 - $131,029
= ($5,9732)

As long as the NPV is greater than zero, the project is considered economically acceptable. Unfortunately for this project, the NPV is less than zero, indicating that for a required rate of return of 10%, this project should not be accepted. The required rate of return would have to be something less than 6.65% before this project returns a positive NPV.

STEPS TO CONDUCT AN ECONOMIC FEASIBILITY ANALYSIS

The steps involved in performing an economic feasibility analysis are illustrated.

1. Identify Costs and Benefits:

The systems analyst's first task when developing an economic feasibility analysis is to identify the kinds of costs and benefits the system. The costs and benefits can be broken down into four categories: (1) development costs, (2) operational costs, (3) tangible benefits, and (4) intangibles.

Development Costs	Operational Costs
Development Team Salaries	Software Upgrades
Consultant Fees	Software Licensing Fees
Development Training	Hardware Repairs
Hardware and Software	Hardware Upgrades
Vendor Installation	Operational Team Salaries
Office Space and Equipment	Communications Charges
Data Conversion Costs	User Training

Tangible Benefits	Intangible Benefits
Increased Sales	Increased Market Share
Reductions in Staff	Increased Brand Recognition
Reductions in Inventory	Higher Quality Products
Reductions in IT Costs	Improved Customer Service
Better Supplier Prices	Better Supplier Relations

Figure: Example of Costs and Benefits for Economic Feasibility

Development costs:

- Development costs are those tangible expenses that are incurred during the creation of the system, such as salaries for the project team.
- Development costs are usually thought of as one-time costs.

Operational costs:

- Operational costs are those tangible costs that are required to operate the system, such as the software licensing fees.
- Operational costs are usually thought of as ongoing costs.

Tangible benefits:

- *Tangible benefits* include revenue that the system enables the organization to collect, such as increased sales. In addition, if the system produces a reduction in needed staff, lower salary costs result. So, the reduction in costs also is a tangible benefit of the new system.

Intangible benefits:

- Intangible costs and benefits are more difficult to incorporate into the economic feasibility analysis because they are based on intuition and belief rather than on "hard numbers."
- Nonetheless, they should be listed in the spreadsheet along with the tangible items.

Other types:

One-Time Costs:

- Associated with project start-up, initiation and development
- Includes
  - ✓ System development
  - ✓ New hardware and software purchases
  - ✓ User training
  - ✓ Site preparation
  - ✓ Data or system conversion

Recurring (Operational) Costs:

- Associated with on-going use of the system
  - ✓ New human resource costs
  - ✓ Application software maintenance
  - ✓ Incremental data storage expense
  - ✓ Incremental communications
  - ✓ New software and hardware releases
  - ✓ Consumable supplies

2. Assign Values to Costs and Benefits

- Once the types of costs and benefits have been identified, the analyst needs to assign specific dollar values to them. This may seem impossible— How can someone quantify costs and benefits that haven't happened yet? Although this task is very difficult, it is possible to predict the value of costs and benefits. Only then can the approval committee make an informed decision about whether or not to move ahead with the project.
- The most effective strategy for estimating costs and benefits is to rely on the people who have the best understanding of them (business users and IT professionals). Even intangibles should be valued if at all possible.
- With a likelihood (probability) estimate to each value, an expected value for the cost or benefit can be calculated.

- Intangible benefits and costs are also measurable without assigning a dollar value. It is suggested that organization can quantify intangible costs or benefits (if at all possible).

3. Determine Cash Flow

A formal cost–benefit analysis usually contains costs and benefits over a selected number of years (usually, three to five years) to show cash flow over time. (See the below figure).

	2012	2013	2014	2015	2016	Total
Benefits						
Increased sales		500,000	530,000	561,800	595,508	2,187,308
Reduction in customer complaint calls[a]		70,000	70,000	70,000	70,000	280,000
Reduced inventory costs		68,000	68,000	68,000	68,000	272,000
Total Benefits[b]		**638,000**	**668,000**	**699,800**	**733,508**	**2,739,308**
Development Costs						
2 servers @ $125,000	250,000	0	0	0	0	250,000
Printer	100,000	0	0	0	0	100,000
Software licenses	34,825	0	0	0	0	34,825
Server software	10,945	0	0	0	0	10,945
Development labor	1,236,525	0	0	0	0	1,236,525
Total Development Costs	**1,632,295**	**0**	**0**	**0**	**0**	**1,632,295**
Operational Costs						
Hardware		50,000	50,000	50,000	50,000	200,000
Software		20,000	20,000	20,000	20,000	80,000
Operational labor		115,000	119,600	124,384	129,359	488,343
Total Operational Costs		**185,000**	**189,600**	**194,384**	**199,359**	**768,343**
Total Costs	**1,632,295**	**185,000**	**189,600**	**194,384**	**199,359**	**2,400,638**
Total Benefits – Total Costs	**(1,632,295)**	**453,000**	**478,400**	**505,416**	**534,149**	**338,670**
Cumulative Net Cash Flow	**(1,632,295)**	**(1,179,295)**	**(700,895)**	**(195,479)**	**338,670**	
Return on Investment (ROI)	**14.1%**	**(338,670/2,400,638)**				
Break-even Point	**3.37 years**	**(3 years of negative cumulative cash flow + [534,149 – 338,670]/534,149 = .37)**				

[a] Customer service values are based on reduced costs of handling customer complaint phone calls.

[b] An important yet intangible benefit will be the ability to offer services that our competitors currently offer.

Figure Cost–Benefit Analysis—Simple Cash Flow Method

4. Assess Project's Economic Value

Evaluate the project's expected returns in comparison to its costs. Use one or more of the following evaluation techniques:

- ✓ **Determine ROI:** The above figure includes the ROI calculation for our example project. This project's ROI is calculated to be 14.1%.
- ✓ **Determine BEP:** The above figure also includes the BEP calculation for our example project. This project's BEP is calculated to be 3.37 years.
- ✓ **Determine NPV:** In the below figure, the present value of the costs and benefits has been calculated and added to our example spreadsheet, using a 6% rate of return. The NPV is simply the difference between the total present value of the benefits and the total present value of the costs. As long as the NPV is greater than zero, the project is considered

economically viable. In this example, since NPV is $68,292, the project should be accepted from an economic feasibility perspective.

	2012	2013	2014	2015	2016	Total
Benefits						
Increased sales		500,000	530,000	561,800	595,508	
Reduction in customer complaint calls[a]		70,000	70,000	70,000	70,000	
Reduced inventory costs		68,000	68,000	68,000	68,000	
Total Benefits[b]		**638,000**	**668,000**	**699,800**	**733,508**	
Present Value Total Benefits		**601,887**	**594,518**	**587,566**	**581,007**	**2,364,978**
Development Costs						
2 Servers @ $125,000	250,000	0	0	0	0	
Printer	100,000	0	0	0	0	
Software licenses	34,825	0	0	0	0	
Server software	10,945	0	0	0	0	
Development labor	1,236,525	0	0	0	0	
Total Development Costs	**1,632,295**	**0**	**0**	**0**	**0**	
Operational Costs						
Hardware		50,000	50,000	50,000	50,000	
Software		20,000	20,000	20,000	20,000	
Operational labor		115,000	119,600	124,384	129,359	
Total Operational Costs		**185,000**	**189,600**	**194,384**	**199,359**	
Total Costs	**1,632,295**	**185,000**	**189,600**	**194,384**	**199,359**	
Present Value Total Costs	**1,632,295**	**174,528**	**168,743**	**163,209**	**157,911**	**2,296,686**
NPV (PV Total Benefits – PV Total Costs)						**68,292**

[a] Customer service values are based on reduced costs of handling customer complaint phone calls.

[b] An important yet intangible benefit will be the ability to offer services that our competitors currently offer.

Figure: Cost–Benefit Analysis—Discounted Cash Flow Method

WHAT IS A BUSINESS CASE?

- The term *business case* refers to the reasons, or justification, for a proposal.
- A business case should be comprehensive, yet easy to understand. It should describe the project clearly and estimate the project's financial impact.
- The business case should answer questions such as the following:
  - ✓ Why are we doing this project?
  - ✓ What is the project about?
  - ✓ How much will it cost and how long will it take?
  - ✓ What is the return on investment and payback period?
  - ✓ What are the risks of doing the project?
  - ✓ What are the risks of *not* doing the project?
  - ✓ How will we measure success?
  - ✓ What alternatives exist?

DIFFERENCE BETWEEN DELIVERABLES AND OUTCOMES

A project deliverable is something that the project produces, and usually happens at certain intervals in your project (called milestones). For example, a deliverable in a software development project can be "creation of the database".

A project outcome is an abstract concept. I think an example would explain it, so here's one: "The project will give us an edge in the software project management industry". So, in this case, we are developing a project management software, and if we get this project done, then we will have an edge in this industry (because of all the features that this software has). You see, this "having an edge" concept is a project outcome.

Another example: Let's assume that you are involved in one of those mega projects building a tower. Once the tower achieves a certain height, it will become the tallest tower in the world. That's a project outcome, it's not a deliverable.

Unlike a deliverable, a project outcome does not consist of work, but of achievement related to the work. Also, a project deliverable is measurable, a project outcome is not.