ROI VOI Feasibility Analysis

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1 VOI vs ROI

VOI (value of investment) is the total measure of benefits derived from soft benefits; ROI is a component of VOI.

ROI represents financial gains that are expressed as a percentage of the funds invested to generate that gain within a predetermined time. Financial gains can be captured by way of cost reductions. Examples include:

- Cost per transaction
- Time to market new products
- Elapsed time to problem resolution
- Exclusion of redundant costs

Investments funds include items such as:

- Cost of implementation (e.g. labor, training, project management, tools)
- Ongoing maintenance costs
- Transformation costs that will impact the entire enterprise and all its business units
- Renewal costs: includes improving maintainability of the processes, reducing support costs, ongoing training such as seminars/workshops, tools, SME/consultants and integration costs

2   VOI & The ITIL Business Case

In developing a business case, the focus should not be limited to ROI, but also on the business value ITIL brings to the organisation and its customers. ITIL's benefits, both short term and long term, should be expressed in tangible and intangible terms.

When used in business cases, soft benefits (or intangibles) are IT investment payoff areas not expressed in monetary ways. For example, "Less frequent use of temporary workers makes hourly employees feel better" is intangible if no believable dollar impact is shown. Conversely, "Less frequent use of temporary workers will save $100,000 annually in labor costs" is tangible when expressed in believable dollar terms.

ROI alone does not capture the real value of ITIL and this should not be the primary metric in preparing a business case for ITIL; however, it is a fact that most enterprises will rely on ROI as the primary metric of evaluation. This is because traditionally, one of the thorniest business case problems has been quantifying soft benefits such as increased brand image and customer satisfaction. When you are lucky enough to have hard numbers on your side, your tendency might be to leave intangibles out of the discussion altogether.

It is a mistake to ignore the soft benefits, because it cannot be predicted in advance what will sway the decision-makers. Often, decisions are made based on intangibles much more than tangibles.

Use the soft benefits to tell a story in the business case. Attempt to capture value that lies beyond the reach of an ROI calculation, such as:

- Increased organisational competency
- Integration between people and processes
- Reduction of redundancy
- Increased business throughput
- Minimised lost opportunities
- Regulatory compliance
- Increased ability to react to change rapidly

2.1   Why ROI/VOI & IT Governance

- Principles, Guidelines and Measures to ensure that with the help of IT:

    o   Business Goals are being reached
    o   Resources are responsibly managed

- o Risk is adequately assessed
- o Different stakeholders are being considered

- IT is not only seen as a cost centre, but as an enabler for business; therefore, strategic alignment is needed
- IT is seen to create value; i.e. to help increase ROI
- Performance management for IT is crucial (IT Balanced Scorecard)

3   Project Initiation

- Identify a project that will deliver value to the business
- Prepare a system request – provide basic information about the new system
- Submit the request to an approval committee
- The approval committee may then ask for a feasibility analysis
- Submit the feasibility analysis and revised system request to the approval committee
- The approval committee decides whether or not to approve the project

3.1   What Is A Feasibility Analysis?

Feasibility is a measure of how beneficial or practical the development of an Information system will be to an organisation. A Feasibility Analysis is the process by which feasibility is measured, and the goals of this activity include:

- Determining whether or not to proceed with a project
- Identifying any important risks associated with the project
- Determining if the final product will benefit its intended users
- Identifying and evaluating possible alternatives from which a solution will be chosen (during subsequent phases)
- Determining if there is a preferred alternative

The feasibility study is a management-oriented activity. After a feasibility study, management makes a go/no go decision based on the feasibility of the project and whether or not there is a preferred alternative.

3.2   What To Study?

Things to be studied during the feasibility study phase:

- The present organisational system, including users, policies, functions and objectives
- Problems with the present system (inconsistencies, inadequacies in functionality or performance)
- Objectives and other requirements for the new system (what needs to change?)
- Constraints, including nonfunctional requirements on the system (preliminary pass)
- Possible alternatives (the current system is always one of those)
- Advantages and disadvantages of the alternatives

3.3 Types Of Feasibility

3.3.1 Operational Feasibility

The PIECES Framework: The PIECES framework can help in identifying problems to be solved, and their urgency:

- *Performance* – Does the current mode of operation provide adequate throughput and response time?
- *Information* – Does the current mode provide end users and managers with timely, pertinent, accurate and usefully formatted information?
- *Economy* – Does the current mode of operation provide cost-effective information services to the business? Could there be a reduction in costs and/or an increase in benefits?
- *Control* – Does the current mode of operation offer effective controls to protect against fraud and to guarantee accuracy and security of data and information?
- *Efficiency* – Does the current mode of operation make maximum use of available resources, including people, time, flow of forms?
- *Services* – Does the current mode of operation provide reliable service? Is it flexible and expandable?

3.3.1.1 Operational Feasibility: Acceptability of Potential Solutions

- How do end-users and managers feel about the problem (solution)?
- It is not only important to evaluate whether a system can work but also evaluate whether a system will work
- A workable solution might fail because of end-user or management resistance
- Does management support the project?
- How do the end-users feel about their role in the new system?
- What end-users or managers may resist or not use the system?
- People tend to resist change. Can this problem be overcome? If so, how?
- How will the working environment of the end-users change?
- Can or will end-users and management adapt to the change?

3.3.2 Technical Feasibility

- Is the proposed technology or solution practical?
- Do we currently possess the necessary technology?
- Do we possess the necessary technical expertise, and is the schedule reasonable?
- The technology for any defined solution is usually available; however, the question is whether that technology is mature enough to be easily applied to our problem
- Do we want or need to be on the leading edge? Some firms like to use state-of-the-art technology, but most firms prefer to use mature and proven technology.

- How well will we be supported? A mature technology has a larger customer base for obtaining advice concerning problems and improvements
- Assuming that required technology is practical, is it available in the Enterprise? If the technology is available, does it have the capacity to handle the solution?
- If the technology is not available, can it be acquired?

3.3.3 Schedule Feasibility

- We may have the technology, but that doesn't mean we have the skills required to properly apply that technology. True, all information systems professionals can learn new technologies; however, that learning curve will impact the technical feasibility of the project. Specifically, it will impact the schedule
- Given our technical expertise, are the project deadlines reasonable? Some projects are initiated with specific deadlines. It needs to be determined whether the deadlines are mandatory or desirable. If the deadlines are desirable rather than mandatory, the analyst can propose alternative schedules
- It is preferable (unless the deadline is absolutely mandatory) to deliver a properly functioning information system two months late than to deliver an error-prone, useless information system on time! Missed schedules are bad, but inadequate systems are worse

3.3.4 Legal Feasibility

- Are there any potential legal or contractual ramifications associated with the project?

3.3.5 Political Feasibility

- How do key stakeholders in the organisation view the project?

3.3.6 Economic Feasibility

- The bottom line in many projects is economic feasibility
- During the early phases of the project, economic feasibility analysis amounts to little more than judging whether the possible benefits of solving the problem are worthwhile
- As soon as specific requirements and solutions have been identified, the analyst can weigh the costs and benefits of each alternative
- This is called a cost-benefit analysis

3.3.6.1 Cost/Benefit Analysis

The purpose of a cost/benefit analysis is to answer questions such as:

- Is the project justified (because benefits outweigh costs)?
- Can the project be done, within given cost constraints?
- What is the minimal cost to attain a certain system?
- What is the preferred alternative, among candidate solutions?

Benefits should be identified by organisational level (operational, lower/middle/higher management) or by department (production, purchasing, sales, etc.) and classified into one of the following categories:

- Monetary – when $-values can be calculated
- Tangible (Quantified) – when benefits can be quantified, but $-values can't be calculated
- Intangible – when neither of the above applies

Costs are classified as follows:

- Project-related costs:

  o Development and purchasing costs: who builds the system (internally or contracted out)? Software used (buy or build)? Hardware (what to buy, buy/lease)? Facilities (site, communications, power)?
  o Installation and conversion costs: installing the system, training of personnel, file conversion

- Operational costs (on-going):

  o Maintenance: hardware (maintenance, lease, materials), software (maintenance fees and contracts), facilities
  o Personnel: operation, maintenance

Sample Cost/Benefit Analysis

Tangible benefits: *Tangible benefits should always be quantified*	Intangible benefits:
• Cost reduction and avoidance • Error reduction • Increased flexibility • Increased speed of activity • Improved management planning and control • Opening new markets and increasing	• Competitive necessity • More timely information • Improved organisational planning • Increased organisational flexibility • Promotion of organisational learning and understanding • Availability of new, better, or more

Tangible costs:	Intangible costs:
• Hardware cost • Software cost • Labor cost • Operational cost • Employee training • Building renovations	• Loss of customer goodwill • Employee morale • Operational inefficiency
One-Time Costs Associated with project startup, initiation and development and includes: • System Development • New hardware and software purchases • User training • Site preparation • Data or system conversion	**Recurring Costs** Associated with ongoing use of the System and includes: • Application software maintenance • Incremental data storage expense • New software and hardware releases • Consumable supplies • Incremental communications (can come both as fixed or variable cost)

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	information • Ability to investigate more alternatives • Better and faster decision making • Improved asset utilisation • Improved resource control • Improved work processes that can improve employee morale
sales opportunities	

3.3.6.2 Accounting Methods

Assuming that both benefits and costs can be identified and evaluated, how do we compare them to determine project feasibility? Typical cases include comparing costs of alternatives (assuming equal benefits) or comparing various payment options:

- **Payback Analysis** – How long it will take (usually, in years) to pay back the project, and accrued costs:

    o Total costs (initial + incremental) - Yearly return (or savings)

- o Return on Investment Analysis: compares the lifetime profitability of alternative solutions
- o <u>Lifetime benefits - Lifetime costs</u>   =   ROI
       Lifetime costs

- **Net Present Value Analysis** – Determines the profitability of the new project in terms of today's dollar values. Will tell you that if you invest in the proposed project, after 'n' years you will have $XXX profit/loss on your investment

- **Return on Investment (ROI) Analysis** – The ROI analysis technique compares the lifetime profitability of alternative solutions or projects. The ROI for a solution or project is a percentage rate that measures the relationship between the amounts the business gets back from an investment and the amount invested. The ROI for a potential solution or project is calculated as follows:

$$ROI = \frac{(Estimated\ lifetime\ benefits - Estimated\ lifetime\ costs)}{Estimated\ lifetime\ costs}$$

4 ROI For The Support & Restore ITIL Processes

4.1 Service Desk

The Service Desk extends the range of services and offers a more global-focused approach, allowing business processes to be integrated into the Service Management infrastructure.   Help Desk ROI can be defined as the dollar value of what the Help Desk is delivering to the business balanced against the dollar value of what the Help Desk is costing the business.

4.1.1 Return

Possibly the easiest way to calculate return is to base it on replacement value for the services the Help Desk is providing. In other words, what it would cost someone else to do what your Help Desk is doing? To do this, ask a few outsourcers what they would charge for the services you perform, taking care to ensure that the fees they quote include exactly what your own Help Desk is giving you now, including service levels.

As an example, say the cost of running your Help Desk is $900,000 per year. If the outsourcers come back with costs of $800,000 then, even if your Help Desk is meeting or surpassing all service levels, your Help Desk ROI does not look very good. It would appear that your organisation is paying $900,000 for $800,000 worth of services. If your Help Desk was performing poorly (e.g. poor response times, low customer satisfaction) then the ROI becomes even lower. At this point, you might find your Help Desk outsourced.

4.1.2 Investment

Investment is the Help Desk operating cost. This should include:

- Staffing costs, including benefits and overhead
- Outsourced contracts
- Training costs for Help Desk staff
- Cost of any training material or promotional material distributed or made available to Help Desk customers
- Office supplies
- Cost of Help Desk Software and associated maintenance
- Depreciation or leasing fees of Help Desk hardware
- Facilities overhead (e.g. rent)

Investment, or Help Desk operating cost, is most useful when expressed as a cost per unit basis; for example, cost per workstation. You cannot expect your Help Desk costs to remain the same no matter how many workstations you add. If the cost per workstation decreases, then even if your overall Help Desk costs increase you know you are more cost effective than before, when the overall Help Desk cost was lower. Using the same example as above, if you have 1,500 customers you support, your annual investment would be $600 per workstation vs. a $533 return. ($900,000 / 1,500 vs. $800,000 / $1,500).

A prerequisite for calculating ROI is to truly understand how your Help Desk is performing, what service levels you are meeting, so that costs can be compared on an equal footing. ROI is not in itself a complete measure of performance. In order to understand how your Help Desk is performing, you must also look at other performance factors such as how effectively your Help Desk is managing its call load and how effective your proactive planning and improvement initiatives are in meeting the changing demands of the business.

4.1.3 Cost Benefit Examples

The efforts to stabilise the infrastructure will result in a reduced number of service calls being registered in the first place, adding to the ROI of ITIL of improved productivity.

- Try to estimate by how much the average resolution time could be reduced by using real examples and simulating the envisioned support environment
- Improved productivity in terms of customers each staff member can support

4.1.4 Potential Service Desk Benefits For ROI

The Service Desk is the heart of IT, and is your source for information about how you are perceived by the user community. The Service Desk is often overlooked by the organisation and is viewed as a non value added function in IT. These perceptions are usually caused by experiences with poorly staffed, ill trained and poorly managed organisations. A well managed Service Desk will improve the perception of IT by the organisation. This is accomplished by reducing downtime, finding the root cause for issues, communicating accurately with users, and providing timely and professional service on a consistent basis.

- Customer:

  o Faster time-to-diagnosis, faster time-to-resolution (reduce cycle time)
  o Higher quality of service – Reduce outage or down time (reduce waste)
  o Reduced frustration by being able to check on outstanding issues/requests – single ticket/request # (customer satisfaction)

- o Single problem reporting process (reduce waste)

- IT Employee:

  - o Prioritisation of problems and case histories on common development platform (reduce Waste)
  - o Confidence that the business is making necessary and "long term and known" improvements (employee morale)
  - o Better global IT operational efficiency (reduce waste)

- Increased company productivity:

  - o Reduce mean time to resolution (reduce cycle time)
  - o Reduce resource time spent tracking open tickets (reduce waste)
  - o Increased company customer satisfaction
  - o Root cause analysis, business views, impact reporting and analysis (reduce waste)
  - o Tracking and trending based on a single system, with a single process (reduce cycle time)
  - o Better management of service and reduction of recurring and duplicate problems (reduce waste)

- Overall process improvements:

  - o Ability to focus on process changes to enhance technology ROI
  - o New business level views providing new methods of IT problem reliability reporting and accountability (reduce waste)

4.2   Incident Management

ITIL defines an *incident* as a deviation for the (expected) standard operation of a system or a service. The objective of Incident Management, which is underpinned by the Service Desk Function, is to provide continuity by restoring the service in the quickest way possible by whatever means necessary (temporary fixes or workarounds). The high level activities are Detection, Recording, Classification, Investigation, Diagnosis, Resolution and Recovery.

Incident Management helps IT decrease mean time to resolution (MTTR) when issues do arise. Integrating tools that detect outages with Incident Management workflow ensures the service support function is always one step ahead of the customer. When an alarm or event is reported by the device monitoring software, this integration ensures that the incident is clearly categorised and classified and the impacted service and

configuration components are identified. Clear escalation paths ensure that the right personnel get involved at the right time. And service status is proactively communicated with service customers.

4.2.1 Return

The implementation of Incident Management has resulted in a decrease in down time per user. If the downtime per user is reduced by one minute per person per day, this would save the organisation 500 * 200 * $50 * 1/60 = $83,300 per year.

4.2.2 Potential Incident Management Benefits For ROI

The major benefits to be gained by implementing an Incident Management process are as follows:

- For the business as a whole:

  o Reduced business impact of Incidents by timely resolution, thereby increasing effectiveness
  o The proactive identification of beneficial system enhancements and amendments
  o The availability of business-focused management information related to the SLA

- For the IT organisation in particular:

  o Improved monitoring, allowing performance against SLAs to be accurately measured
  o Improved management information on aspects of service quality
  o Better staff utilisation, leading to greater efficiency
  o Elimination of lost or incorrect Incidents and service requests
  o More accurate CMDB information (giving an ongoing audit while registering Incidents)
  o Improved User and Customer satisfaction

4.3 Problem Management

A *problem* is defined in ITIL as a condition that has been defined, identified from one large incident or many incidents exhibiting common symptoms, for which the cause is unknown. A *known error* is defined as a condition identified by successful diagnosis of the root cause of a problem when it is confirmed that a Configuration Item (CI) is at fault. The objective of Problem Management is to ensure the stability of the IT services

by identifying and removing known errors in the IT infrastructure. The high level activities are: Problem Control, Error Control, Proactive Problem Management, and Management Information.

4.3.1 Return

Suppose that the implementation of Problem Management decreases the percentage number of recurring incidents by 500 (10% of Total) per year.
This means a revenue of 500 * $50 * 10/60 = $4,000 per year.

Want To Learn More?

1. Attend **The Implementation Road Map For IT Service Management** which is being presented in **Sydney** on **May 23 – 27, 2007**.

   The ITIL certification courses teach you 'what' to do, but not 'how' to do it. Led by Pink's expert consultants, The Implementation Road Map For IT Service Management is **the only course of its kind in the industry,** and is a must-attend for anyone who is undertaking ITIL implementation.

   Call Australia 1 800 55 PINK / New Zealand 0800 333 357 for more information.

2. Attend **ITIL Practitioner: Service Level Management & Financial Management**, which is being presented in **Sydney** on **March 5 – 9, 2007**.

   ITIL Practitioner: Service Level Management & Financial Management will teach you how to apply ITIL best practices when defining services, and managing service levels and relationships with both internal and external providers. Learn how to effectively budget, cost and charge for IT services. And because ITIL focuses on integrating key processes – as well as enabling a stable IT environment – you will learn how to link together Service Level Management and IT Financial Management for IT Services processes to achieve those two goals.

   http://www2.pinkelephant.com/redirect.asp?page=padanz&id=pl64anz

3. Attend **ITIL Practitioner: Service Desk, Incident & Problem Management**, which is being presented in **Sydney** on **February 19 – 23, 2007**.

   Learn how to apply ITIL best practices to effectively support your IT infrastructure, while minimising the adverse effects of incidents and problems. And because ITIL focuses on integrating key processes – as well as enabling a stable IT environment – you will learn how to link together Incident and Problem Management processes with the Service Desk function to achieve those two goals.

   http://www2.pinkelephant.com/redirect.asp?page=psranz&id=pl64anz