



Microsoft REJ Framework: Step by Step

Quantifying the Business Value of Information Technology (IT) Investments

Abstract

IT managers today face challenges of delivering products to markets faster, making customer and partner relationships stronger, and enhancing the productivity of employees—endeavors that all contribute business value to their organizations. However, ensuring that capital appropriations are available for IT may also prove just as challenging since IT investments are often measured against other revenue-generating investments that are much better understood by the finance division or the board. IT managers need a means to demonstrate the business value of IT.

Microsoft® REJ™ is an economic assessment and measurement framework that helps organizations align IT solutions with business imperatives, and then quantify the direct financial benefits of those solutions. REJ, which stands for rapid economic justification, was developed in conjunction with key business schools, industry analysts, and with the assistance of Microsoft customers and partners. This white paper, designed for a REJ practitioner, presents:

- An introduction to the components of the REJ framework.
- An overview of the process in conducting a REJ study.
- A methodology for developing a business case to present to management.



Framework Components

The REJ framework consists of three models:

- **Team.** Defines roles and responsibilities required to conduct an REJ study.
- **Business Case.** Provides templates and guidelines for preparing and presenting a business case to senior business and IT management.
- **Process.** Provides techniques and tools to conduct a REJ study and prepare the business case.

Framework Components

1. Support of a business sponsor.
2. Assemble a team capable of conducting the study.
3. Buy-in and commitment from the team and the business sponsor.
4. Access to relevant information and stakeholders.
5. Focus on value creation as opposed to costs.

Introduction

Microsoft developed the REJ framework to assist organizations in evaluating and quantifying the business value of proposed investments in Information Technology (IT). An REJ study consists of three models:

- Team roles and responsibilities.
- Business case preparation.
- Process to perform the study.

The goal of this white paper is to provide the REJ practitioner with an understanding of the REJ framework and process.

The essence of the REJ framework is that it ensures that IT investments are evaluated in terms of business issues that are important to the organization. The REJ framework refers to these business issues as the organization's Critical Success Factors (CSF).

The REJ framework is most suitable to organizations that do not have a structured approach to evaluating and quantifying IT investments. Organizations that are most likely to benefit from conducting an REJ analysis include:

- Organizations seeking to better align IT decisions with business objectives.
- Organizations that have a clear understanding of IT costs but need a way to quantify the value of their IT investments.


The REJ framework was designed to evaluate individual IT investments including specific technologies or products. The framework can be used in conjunction with other analytical approaches such as IT Portfolio Management, Balanced Scorecard, and cost of ownership audits.

Getting Started


The REJ framework is based on a multi-disciplinary approach. The team that conducts the study will include business managers, IT managers, and financial analysts. The team should also include at least one experienced REJ practitioner. Contact your local Microsoft office for more information about REJ consulting and training available through Microsoft Consulting Services.

The key to a successful REJ study is to ensure the team has access to the appropriate resources and people, and the organization remains open to their findings. Microsoft has found that a senior business or IT executive within the organization should act as executive sponsor for the REJ study. Each organization will have its own criteria for deciding whether the sponsor is a business decision-maker or IT executive.

The remainder of this white paper presents the REJ framework in greater detail.

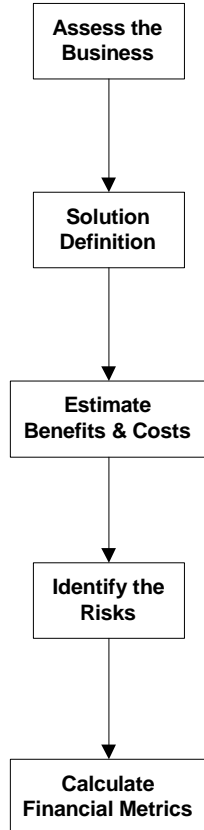
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|  | <h2 style="margin: 0;">The REJ Team Model</h2> |
| <p>Executive Sponsor</p> <ul style="list-style-type: none"> ▪ Provides access to documents and stakeholders. ▪ Ensures team has resources to complete the REJ study. | <p>The REJ Team model is based on the concept that the best IT investment decisions are made by multidisciplinary teams. This approach brings together business, IT, and financial experts to help the organization develop a more holistic view of its IT investment decisions.</p> <p>The team works together to develop the business case. Although each team member brings specific expertise, all are encouraged to contribute at each stage of the study. The following roles are considered essential to a successful REJ business value study:</p> |
| <p>Program Manager</p> <ul style="list-style-type: none"> ▪ Ensures that project milestones are met. ▪ Communicates project status to sponsor. ▪ Responsible for assembling and presenting business case documents. | <ul style="list-style-type: none"> ▪ Executive Sponsor (ES). Ensures that the study meets the needs of the organization. Ideally, the executive sponsor is responsible for making the investment decision. While not necessarily involved with the study on a day-to-day basis, the executive sponsor ensures that the team has access to the appropriate people and resources to conduct the REJ study. |
| <p>Business Architect</p> <ul style="list-style-type: none"> ▪ Provides team with in-depth knowledge of the business and its activities. ▪ Conducts interviews with stakeholders and business users. ▪ Guides team in identifying opportunities to enhance business activities. | <ul style="list-style-type: none"> ▪ Program Manager (PM). Assumes responsibility for overall project management and assembly of the business case. Because many organizations do not have specific expertise with the REJ framework, an outside consultant or analyst firm often performs this role. The program manager should have strong project management and communications skills. The program manager ensures that the team is committed to a common purpose and that roles and responsibilities are defined clearly. ▪ Business Architect (BA). Guides the team in identifying the strategic goals and Critical Success Factors of the organization, as well as identifying key business activities that are most likely to benefit from the solution. It is helpful if the business architect has a background in industrial engineering or process modeling. ▪ Solution Architect (SA). Guides the team in determining how the proposed solution enhances the activities identified by the business architect and describes how the technology will provide specific value to the business. The Solution Architect should be knowledgeable about technology and able to relate specific technical capabilities to business value. ▪ Financial Analyst (FA). Provides the analytical discipline to ensure that the cash flow projections represent a realistic view of the |

| <p>Solution Architect</p> <ul style="list-style-type: none"> Provides team with in-depth knowledge of the solution. Reviews business activities to determine how the solution can add value by enhancing activities. Guides team in creating value statements. | <p>that the cash flow projections represent a realistic view of the investment. It is best if the Financial Analyst has a background in business administration.</p> <p>Combining Roles In some cases it may not be possible to have one individual dedicated to each role. In these cases, while not optimal, it is possible to have one individual perform more than one role. Figure 1 below shows recommended combinations of roles based on the skills and requirements of each role.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>Financial Analyst</p> <ul style="list-style-type: none"> Provides team with in-depth knowledge of benefits and cost estimates. Assembles cash flow projections and calculates payback. | <table border="1" data-bbox="703 630 1448 823"> <thead> <tr> <th></th> <th>ES</th> <th>PM</th> <th>BA</th> <th>SA</th> <th>FA</th> </tr> </thead> <tbody> <tr> <th>ES</th> <td>-</td> <td>✓</td> <td>✓</td> <td>✗</td> <td>✓</td> </tr> <tr> <th>PM</th> <td></td> <td>-</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <th>BA</th> <td></td> <td></td> <td>-</td> <td>✗</td> <td>✓</td> </tr> <tr> <th>SA</th> <td></td> <td></td> <td></td> <td>-</td> <td>✗</td> </tr> <tr> <th>FA</th> <td></td> <td></td> <td></td> <td></td> <td>-</td> </tr> </tbody> </table> <p style="text-align: center;">Figure 1 – Combining Team Roles</p> | | ES | PM | BA | SA | FA | ES | - | ✓ | ✓ | ✗ | ✓ | PM | | - | ✓ | ✓ | ✓ | BA | | | - | ✗ | ✓ | SA | | | | - | ✗ | FA | | | | | - |
| | ES | PM | BA | SA | FA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ES | - | ✓ | ✓ | ✗ | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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|  | <h2 style="text-align: center;">The REJ Business Case Model</h2> |
| <p>Section 1 - Business Assessment</p> <ul style="list-style-type: none"> ▪ Identify the business issues. ▪ Demonstrate alignment between proposed IT solution and the organization. | <p>The goal of the REJ framework is to develop a business case that will help senior management better understand the value of a particular IT investment. This is especially important considering that investments in IT must compete with other enterprise investments, which are evaluated in the context of achieving business objectives.</p> <p>The final deliverable of an REJ study is a business case that describes the team’s findings, shows how the proposed solution relates to business needs, and describes the potential financial benefits of the solution. The business case consists of two components:</p> |
| <p>Section 2 - Solution Definition</p> <ul style="list-style-type: none"> ▪ Provide a high-level description of the solution. ▪ Show how the solution addresses the business needs in Section 1. | <ol style="list-style-type: none"> 1) A short slide presentation summarizing the results of the study. 2) A more detailed business case document. <p>The business case consists of the following sections:</p> |
| <p>Section 3 - Benefit-Cost Analysis</p> <ul style="list-style-type: none"> ▪ Provide detailed cash flow analysis over the life of the solution. | <ul style="list-style-type: none"> ▪ Introduction. Provides background and describes the charter of the study. The introduction could include, for example, the purpose of the study, the business or IT objectives, and what the business hopes to achieve by using a particular information technology. ▪ Business Assessment. Describes the business situation or problem that warrants a solution. |
| <p>Section 4 – Risk Analysis</p> <ul style="list-style-type: none"> ▪ Provide overview of risks identified by the REJ team and adjust the cash flows. ▪ Help team and sponsor understand areas of uncertainty. | <ul style="list-style-type: none"> ▪ Solution Definition. Describes the proposed IT solution that is capable of addressing the business need. Very often, more than one solution or multiple scenarios of a solution may be under consideration. This section includes a description of each competing solution. ▪ Benefit-Cost Analysis. Projects cash flow for each solution or scenario. The relative merits of each scenario can then be addressed by their fiscal, as well as technical merit. |
| <p>Section 5 - Financial Metrics Calculations</p> <ul style="list-style-type: none"> ▪ Represent final estimates into metrics used by the organization for evaluating investments. | <ul style="list-style-type: none"> ▪ Risk Analysis. Presents the risks associated with each scenario. The team may also choose to adjust the benefits and costs to reflect the risks associated with each scenario. ▪ Financial Metrics Calculations. Converts risk-adjusted cash flows into the financial metrics used by the company to evaluate investments and make capital appropriations. <p>The team provides its conclusions and recommendations for moving forward. During the study, the team will generally identify a particular scenario or solution that best fits the business needs or may recommend that a pilot project be initiated to test the solution.</p> |



The REJ Process Model



Microsoft developed the REJ framework to provide a structured approach that helps IT managers link information technology decisions to business issues important to their organization. The REJ framework combines the elements of popular IT investment valuation strategies with elements of the Microsoft Solution Framework (MSF) to provide an efficient and quick process for evaluating IT investment decisions.

The process model consists of five distinct steps:

- **Step 1: Assess the Business.** The REJ team begins the study by identifying issues that are important to the stakeholders of the organization. By doing so, the team is able to align the IT decision with the issues that are critical to the organization's success. It is this alignment that allows the REJ study to be conducted quickly because it focuses the team only on those factors that are critical to the organization's ability to meet its goals.
- **Step 2: Solution Definition.** Once the team completes the business assessment, they identify business activities that are most likely to address the organization's Critical Success Factors (CSF). This allows the team to define the solution in terms of how the technology helps improve critical business activities.
- **Step 3: Estimate Benefits and Costs.** Once the solution has been identified, the team estimates the potential benefits as well as the costs associated with realizing those benefits. The benefits and costs are depicted in a traditional cash flow projection for the project.
- **Step 4: Identify the Risks.** Because it is impossible to know everything at the beginning of a project, no IT investment is without risk. During this phase, the team attempts to identify and measure areas of uncertainty in the study. This information will be included in the business case.
- **Step 5: Calculate Financial Metrics.** The discounted and risk-adjusted cash flows are represented in the financial metrics used by the organization. Examples of these are Net Present Value (NPV), Internal Rate of Return (IRR), Economic Value-Add (EVA) and payback period. Once all of the information has been collected and analyzed, the team builds the business case for the investment. The business case is a document outlining the need of the organization to make investments in technology.

Conducting a REJ Study

Once the organization decides to conduct a REJ study, the team members are assembled and the individual roles are agreed upon. Critical to the success of the study is a commitment from senior management to conduct the study and to ensure that the team has access to the key stakeholders and appropriate resources.

The team drafts a REJ communiqué that the sponsor will send to the stakeholders explaining the purpose of the study and securing their support for the study. The deliverables are agreed upon and a completion date is set, usually 60 to 90 days after the start of the study.

REJ Process - Step 1: Assess the Business

| <p>Inputs</p> <ul style="list-style-type: none"> ▪ Business plans. ▪ Strategic plans. ▪ Interviews with stakeholders. | <p>The REJ study begins by developing an understanding of the issues that are important to the business. The goal is to ensure that any IT investment decision can be shown to be consistent with the organization's business objectives.</p> <p>The team reviews business plans, strategic plans, and value-chain analyses; and may interview stakeholders such as executive management and business line managers. The team identifies:</p> | | | | | | | | | | | | | | | | |
|---|--|---|---|----------|---------------------------|-----|-------------------|--------------------------------------|------------------------|-----|--------------------------|--|---|----------|-----------------------------|---|----------------------------|
| <p>Actions</p> <ul style="list-style-type: none"> ▪ Review documents. ▪ Interview stakeholders. | <ul style="list-style-type: none"> ▪ Critical Success Factors (CSF) of the organization. ▪ Strategies the organization plans to use to achieve the CSF. ▪ Metrics, referred to as Key Performance Indicators (KPI), by which the organization measures success. <p>This approach has several advantages:</p> <ul style="list-style-type: none"> ▪ Rapid Analysis. The team focuses on how best help the organization achieve its CSF. They can address only those activities that are likely to have the most impact on the strategies. | | | | | | | | | | | | | | | | |
| <p>Outputs</p> <ul style="list-style-type: none"> ▪ Alignment table. ▪ Business activities for further analysis. | <ul style="list-style-type: none"> ▪ Value Linking. The team has a context for identifying unexploited activities or key steps that can be linked to create greater value. ▪ Alignment. The team addresses only those activities that have the most impact on the CSF, therefore the proposed solution is more likely to address the needs of the key stakeholders. <p>The team summarizes its findings in an Alignment Table (Figure 2).</p> <table border="1" data-bbox="615 1236 1479 1509"> <thead> <tr> <th>Stakeholder</th> <th>Critical Success Factor</th> <th>Strategy</th> <th>Key Performance Indicator</th> </tr> </thead> <tbody> <tr> <td>CEO</td> <td>Increase revenues</td> <td>Increase cross-selling opportunities</td> <td>Average value per sale</td> </tr> <tr> <td>COO</td> <td>Reduce operating expense</td> <td>Improve productivity of business units</td> <td>Revenue per employee; output per employee</td> </tr> <tr> <td>VP Sales</td> <td>Increase sales productivity</td> <td>Improve access to information, reduce sales cycle</td> <td>Revenue per sales employee</td> </tr> </tbody> </table> <p style="text-align: center;">Figure 2 – Alignment Table</p> <p>Once all this information is collected, the business analyst leads the team through a process of identifying business activities that will most likely affect the organization's CSF. Very often, the team will need to conduct end-user interviews to identify these activities. However, many organizations have developed some form of process maps for key business functions that can be used to identify these activities.</p> <p>Once the team identifies the activities that will likely affect the CSF, they organize them into affinity groups to identify activities that are likely to benefit from the proposed solution.</p> | Stakeholder | Critical Success Factor | Strategy | Key Performance Indicator | CEO | Increase revenues | Increase cross-selling opportunities | Average value per sale | COO | Reduce operating expense | Improve productivity of business units | Revenue per employee; output per employee | VP Sales | Increase sales productivity | Improve access to information, reduce sales cycle | Revenue per sales employee |
| Stakeholder | Critical Success Factor | Strategy | Key Performance Indicator | | | | | | | | | | | | | | |
| CEO | Increase revenues | Increase cross-selling opportunities | Average value per sale | | | | | | | | | | | | | | |
| COO | Reduce operating expense | Improve productivity of business units | Revenue per employee; output per employee | | | | | | | | | | | | | | |
| VP Sales | Increase sales productivity | Improve access to information, reduce sales cycle | Revenue per sales employee | | | | | | | | | | | | | | |

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| <p>Keys to Success</p> <ul style="list-style-type: none">▪ Executive sponsorship.▪ Alignment of strategies among stakeholders. | <p>benefit from the proposed solution.</p> <p>A typical affinity ranking could use the following criteria:</p> <ul style="list-style-type: none">▪ Activities that under-utilize information technology.▪ Activities where information flow is restricted or slow.▪ Activities where information flows are redundant. <p>For example, if “sales productivity” were previously identified as a CSF, the team would identify activities that the sales force might perform that could benefit from improved information technology, such as:</p> <ul style="list-style-type: none">▪ Providing product information to customers.▪ Putting custom presentations together for customers.▪ Responding in real-time to competitive quotes. <p>At the end of the business assessment phase, the team will have identified the activities for which technology enablers will be sought. Once this data has been collected, the study moves to Step 2: Solution Definition.</p> |
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REJ Process - Step 2: Solution Definition

Inputs

- Alignment table.
- List of activities.
- Process models.
- Interviews with users.

For each activity that was identified in the business assessment phase of the study, the team will determine how the activity might be enhanced using information technology. Then, for each activity that might benefit from IT, the team identifies a "required enabler." A required enabler is the technology feature or capability that can make the make the desired activity possible. If the required enabler matches the capabilities of the solution, the solution adds value to this activity. For each match, the team develops a value statement.

Actions

- Identify business activities that address Critical Success Factors.
- Identify opportunities to improve activities.
- Cause & effect analysis.

The team will use cause and effect analysis to identify issues related to each activity. For example, the team identified "Providing Product Information to Customers" as a candidate activity. The team creates a Cause & Effect diagram (Figure 3) to uncover relevant underlying issues.

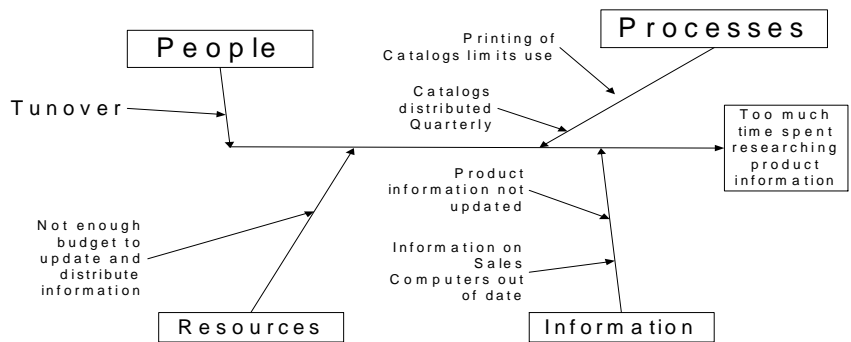


Figure 3 – Cause & Effect Diagram

Outputs

- List of activities that can be enhanced by the solution.
- Solution statement.
- Value statements linking the solution to the activities.

In the above analysis, the team identified "research product information" as a key activity. They learned that sales people spend at least 50 percent of their time researching prices, specifications, and other product information. Spending time on these activities reduces the amount of time that they can spend calling on customers. A Cause & Effect diagram reveals root causes; in this case, spending time researching product information contributes to lost selling time.

The team concludes that this "lost selling time" can be recovered by automatically updating the sales people's laptops with the latest information whenever they connect to the office.

The team must next determine what technology enabler will allow the sales people to realize this capability. They review the benefit maps for Microsoft products and discover that automatic synchronization is a capability of Microsoft® Windows® 2000 Professional. The team can now create a value statement based on this activity, for example:

"By implementing Windows 2000 Professional, we can increase the amount of time that sales people spend with customers by reducing the amount of time that they now spend researching product information".

Keys to Success

- Understanding of business activities.
- Cooperation of business users.
- Buy-in by business line managers.

Below are some of the more common “root causes” of problems associated with an activity:

- **Communications.** Can the appropriate parties share information?
- **Availability.** Does the information exist at all? Can it be retrieved from somewhere in the organization?
- **Access.** Can the appropriate parties find the information in a timely manner?
- **Format.** Is the information in a state that can be easily understood?
- **Process Issues.** Are the activities inherently inefficient? Can we combine one or more activities or link activities in ways that generate value for both parties? For example, can we streamline processes?
- **People Issues.** Are users unhappy with the current solutions?

The team summarizes its findings in an Activity table (Figure 4).

| Activity | Current State | Desired State | Required Enabler | Value Statement | Technical Capability |
|------------------------------|---|---|---|---|--------------------------------|
| Research product information | Sales people spend 50% of their time doing research | Automatically update product information for sales people | Ability to synchronize product information on sales PCs | By automatically updating product information, sales people can spend more time selling | Automatic Synchronization |
| Preparing presentations | Sales people spend too much time building presentations | Sales people can download prepared presentations and update as needed | Presentation database, automatic customization capabilities | By automatically preparing customer presentations sales people spend more time selling | Microsoft Office Custom Wizard |
| Respond to competitive bids | Sales people can lose a sale if they can't respond quickly enough | Allow sales people to respond to pricing issue in real-time | Provide up to the minute pricing information via the Web | By linking the sales person via the Web, updated prices can be sent in real-time | Virtual Private Network |

Figure 4 – Activity Table

At the end of this phase, the team should validate the value statements with business stakeholders to ensure that they are attainable. The stakeholders will identify the value statements that are most important to the organization. At this point, the team is ready to move to Step 3: Estimating the Benefits and Costs.

| REJ Process - Step 3: Estimate Benefits & Costs | |
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| <p>Inputs</p> <ul style="list-style-type: none"> ▪ Value statements from previous steps. ▪ Benefit maps for particular Microsoft solutions. ▪ Cost models for current IT operations. | <p>The decision to invest in a solution will be made based on how well the solution meets the needs of the organization. For profit-focused organizations, the decision is based on how much cash, or wealth, the solution returns to the organization. For non-profit organizations, the decision is often made by how much cash is conserved by implementing the solution. In either case, the sponsors will need a clear understanding of the cash flows associated with the proposed solution.</p> |
| <p>Actions</p> <ul style="list-style-type: none"> ▪ Estimate benefits. ▪ Estimate costs. ▪ Review benefits and costs with stakeholders. | <p>In Step 3, the team estimates implementation benefits and costs and prepares a cash flow statement that will be used by senior management to determine the relative worth of the investment.</p> <p>Most IT managers have a good understanding of how to track and measure costs. But measuring the benefits of an IT investment can often be tricky. Traditionally, IT investments were measured by estimating the reduction in labor costs associated with the solution.</p> <p>This approach may not be meaningful in estimating benefits for specific user groups, for example knowledge workers. More appropriate measures of value might include:</p> |
| <p>Outputs</p> <ul style="list-style-type: none"> ▪ Cash flow projection for the solution. | <ul style="list-style-type: none"> ▪ Increase in productive time for knowledge workers. ▪ Reductions in cycle times. ▪ Reduction in use of working capital. ▪ Reduction in support and infrastructure costs. ▪ Reduction in uncertainty or risk of an outcome. ▪ Increase in flexibility. ▪ Reduced turnover. <p>The team begins by reviewing each value statement and determining how to translate it into a measurable benefit for the organization. For example, the team has identified a potential value statement as “Increasing sales time by 50 percent”. But what exactly does that mean from a cash flow perspective? At the very least, doubling the efficiency of the sales staff has the same effect as doubling the number of sales people without actually hiring new sales people.</p> <p>In our example, let’s assume there are 100 sales people, each paid \$50,000 per year in salary and commissions. The annual payroll for sales is therefore \$5,000,000 per year (100 X \$50,000). Doubling their productivity would be the equivalent of hiring an additional 100 sales people. In effect, the benefit to the organization would be an additional \$5,000,000 per year. Another way to measure the benefit would be to determine the productivity per sales person and double it. Either way, it’s a good idea to validate the technique with the vice president of sales or a similar executive.</p> <p>IT costs fall into two categories: migration costs and operational costs. Several tools are available to estimate these costs. For example, for</p> |

| <p>Keys to Success</p> <ul style="list-style-type: none"> Well defined chart-of-accounts or IT expenses clearly identified. Buy-in from business line managers on benefits. | <p>Several tools are available to estimate these costs. For example, for calculating migration costs, Meta Group's PCM tool can be effective to identify the cost drivers, complexity, and the resulting cost estimates. Similarly, the costs of ongoing operation of the new solution can be calculated using chart-of-accounts in GartnerGroup's Total Cost of Ownership (TCO) Analyst or TCO Manager. This step can provide the initial and ongoing cash outflows for the projected useful life of the solution. These tools have the advantage of allowing the organization to compare its costs with prevailing industry benchmarks.</p> <p>Once the team has identified benefits and costs, they prepare a "pro forma" cash flow projection for the project. This cash flow projection will form the basis for the investment analysis. Figure 5 shows a typical cash flow projection.</p> <table border="1" data-bbox="646 646 1430 835"> <thead> <tr> <th></th> <th>Year 1</th> <th>Year 2</th> <th>Year 3</th> </tr> </thead> <tbody> <tr> <td>Implementation Costs</td> <td>(1,200,000)</td> <td>-</td> <td>-</td> </tr> <tr> <td>Operating Costs</td> <td>-</td> <td>(800,000)</td> <td>(800,000)</td> </tr> <tr> <td>Benefits</td> <td>-</td> <td>5,000,000</td> <td>5,000,000</td> </tr> <tr> <td>Net Cash Flow</td> <td>(1,200,000)</td> <td>4,200,000</td> <td>4,200,000</td> </tr> </tbody> </table> <p style="text-align: center;">Figure 5 - Typical Cash Flow Projection</p> <p>At the end of this phase, the team will have completed the Alignment Table, value statements, and initial cash flow projections for the proposed solution. Before assembling the final document and presenting the business case, the team will next assess the risks associated with the proposal.</p> | | Year 1 | Year 2 | Year 3 | Implementation Costs | (1,200,000) | - | - | Operating Costs | - | (800,000) | (800,000) | Benefits | - | 5,000,000 | 5,000,000 | Net Cash Flow | (1,200,000) | 4,200,000 | 4,200,000 |
|--|---|------------------|------------------|--------|--------|----------------------|-------------|---|---|-----------------|---|-----------|-----------|----------|---|-----------|-----------|----------------------|--------------------|------------------|------------------|
| | Year 1 | Year 2 | Year 3 | | | | | | | | | | | | | | | | | | |
| Implementation Costs | (1,200,000) | - | - | | | | | | | | | | | | | | | | | | |
| Operating Costs | - | (800,000) | (800,000) | | | | | | | | | | | | | | | | | | |
| Benefits | - | 5,000,000 | 5,000,000 | | | | | | | | | | | | | | | | | | |
| Net Cash Flow | (1,200,000) | 4,200,000 | 4,200,000 | | | | | | | | | | | | | | | | | | |

| REJ Process - Step 4: Identify the Risks | |
|--|---|
| <p>Inputs</p> <ul style="list-style-type: none"> ▪ REJ Risk Factor tables. ▪ Outputs of previous steps. | <p>Dealing with risk is a fact of life. We can't know everything at the beginning of a project. During this phase, the team identifies key areas of uncertainty in the business case.</p> <p>The following risk categories are considered:</p> <ul style="list-style-type: none"> ▪ Alignment Risk. The higher the alignment, the lower the risk. However in certain cases, it may be necessary to develop solutions for which alignment is difficult to measure (for example upgrades to infrastructure), but without which, future alignment may be impossible. ▪ Implementation Risk. The probability that costs of the implementation will vary from the estimates. ▪ Operating Risk. The probability that operating costs will vary from the estimated costs. ▪ Solution Risk. The more that is known about the solution and its impact, the lower the risk. However, low risk projects do not always have the highest potential benefit. As they say on Wall Street, "The higher the risk, the higher the return". Risks associated with the technology are considered as part of solutions risk. ▪ Benefit Risk. The probability that we did not estimate the benefits accurately or that unforeseen financial issues may rise. For example, the organization forced to pay more for capital or other issues require more management attention than originally planned that benefits will not be realized. <p>With the exception of alignment risk, each of categories corresponds to a line item on the cash flow projection. Alignment risk is treated differently because it relates much more to a "go/no-go" decision.</p> <ul style="list-style-type: none"> ▪ Low Alignment Risk. The project should have a high-likelihood of addressing the organization's critical success factors and therefore should be considered for funding. ▪ High Alignment Risk. The organization may not fund the project or may choose to find a vendor that is capable of developing the solution. <p>As a rule, IT managers should consider alignment risk very carefully before presenting a business case to senior management.</p> <p>The risk approach recommended in the REJ framework is designed to focus on areas where risks are deemed to be high. The team uses the risk factors tables in the REJ framework to identify potential risks. A risk factor table shows the numeric value assigned to a specific risk category on a scale of 1-5 based on the risk exposure (high – low). For each high-risk factor, the team writes a "risk statement" and estimates both the probability</p> |
| <p>Actions</p> <ul style="list-style-type: none"> ▪ Identify relevant risks from risk factor tables. ▪ Estimate risk exposure. ▪ Adjust benefits and costs to reflect risks. | |
| <p>Outputs</p> <ul style="list-style-type: none"> ▪ Risk assessment table. ▪ Adjusted cash flow projection. | |

and impact of the risk on the proposed solution.

| Risk Type | Range | Risk Statement |
|---------------------|-------|---|
| Alignment Risk | 1.0 | Stakeholders agree that the solution addresses critical success factors |
| Implementation Risk | 2.5 | Some issues related to implementation are still not known |
| Operating Risk | 3.0 | Need to train operations personnel to manage this solution |
| Solution Risk | 1.0 | Solution appears to meet stated needs of the organization. Solution can be implemented. |
| Benefit Risk | 3.0 | Some benefits are estimated, may not be accurate |

1=Little or no risk, 5 = High risk

Figure 6 - Typical Risk Assessment Table

Once the risks are calculated, the team will need to decide on how to report the risks. The first option is to adjust the cash flow projections to account for risks. A second approach (Figure 6) is to present a separate risk assessment table. Determining which approach to use is largely a preference of the organization's presentation style.

| REJ Process - Step 5: Calculating Financial Metrics | |
|---|---|
| <p>Inputs</p> <ul style="list-style-type: none"> ▪ Alignment table. ▪ Solution statement. ▪ Value statements. ▪ Benefits & cost projections. ▪ Risk assessment table. ▪ Business case templates. | <p>The final phase of the REJ framework is assembly of the business case. The business case presents all of the information in a way that will help senior management make an investment decision. Once they have calculated the final metrics, they will prepare the Business Case in two formats:</p> <ul style="list-style-type: none"> ▪ Set of slides (using Microsoft PowerPoint®). ▪ Detailed recommendations document (using Microsoft Word). <p>The investment potential, or return-on-investment (ROI), should be presented using the prevailing metrics of the organization. Most organizations use Net Present Value (NPV) and Internal Rate of Return (IRR) to evaluate investments. Other metrics include Economic Value Add (EVA), Payback, and Earning Per Share (EPS). Before preparing the Business Case, the team should validate the appropriate metrics with management.</p> |
| <p>Actions</p> <ul style="list-style-type: none"> ▪ Assemble business case document (20-40 pages). ▪ Assemble presentation. ▪ Recommendations document. ▪ Present business case. | <p>Because risks discussed in the previous section have the effect of lowering the benefit or increasing the costs, the actual NPV and IRR may be lower. Some organizations choose to account for risks by increasing the hurdle rate against which IRR is tested.</p> |
| <p>Outputs</p> <ul style="list-style-type: none"> ▪ A detailed study report. ▪ Executive presentation of the business case. | <p>The investment metrics are calculated from the cash flow projection. For example, in the previous cash flow projection, the NPV is \$509,000 and the IRR is 71percent. Both of these numbers would suggest an attractive investment.</p> <p>After the team has completed the cash flow projection, they assemble the business case presentation and report. The presentation should be brief and follow the phases of the framework:</p> <ul style="list-style-type: none"> ▪ Slide 1 – Introduction ▪ Slide 2 – Business Need ▪ Slide 3 – Solution Definition ▪ Slide 4 – Benefits and Costs ▪ Slide 5 – Risks ▪ Slide 6 – Return on Investment ▪ Slide 7 – Recommendations and Next Steps |
| <p>Keys to Success</p> <ul style="list-style-type: none"> ▪ Keep the document and presentation as brief as possible. ▪ Review the business case with the executive sponsor before presenting to stakeholders. | <p>A more detailed report supports the findings of the presentation.</p> |

Summary

This white paper presents a strategic overview of the REJ process, key elements that make up an REJ study, and development of the business case report and presentation to management.

The REJ framework can be applied in any environment by any type of organization that needs to evaluate and quantitatively assess the value of IT with regard to optimal use of capital in meeting business objectives.

The REJ framework is not limited in scope to Microsoft technologies, nor is it limited to selected practitioners. Any organization can develop a business value team whose scope is to evaluate the business value of proposed IT solutions. The REJ framework has demonstrated value in the IT decision-making process for organizations of all sizes.

For more information on REJ and examples of companies that have used this framework successfully to build a business case for their IT investments, please visit: <http://www.microsoft.com/value> or contact value@microsoft.com.