

# Empowering Business On The Desktop

Using Gartner  
Total Value of  
Opportunity to  
Measure the  
Financial Value  
of Enterprise  
Client Refresh



## Abstract

In today's business environment, ensuring that organizations are equipped with the right tools to optimize both human and financial capital is of paramount concern.


This report provides the preliminary results of business value studies that Microsoft and Intel conducted using the Gartner Total Value of Opportunity (TVO) methodology. These studies demonstrate that client PCs operating Microsoft® Windows® XP Professional and Microsoft Office 2003 running on Intel® Pentium® 4 Processors or notebook PCs running on Intel® Centrino™ mobile technology can help to:

- Improve IT operational efficiency, reduce overall operating expenses, and help to improve operating margins.
- Improve personal and team productivity, top-line revenue, and customer satisfaction.

These findings are prepared for senior business and financial executives, who are concerned with or make decisions about their organization's investments or have an interest in ensuring the productivity of their company's workforce.

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## Executive Summary

This paper presents findings of business value studies that used the Gartner Total Value of Opportunity (TVO) methodology<sup>1</sup> for financial analysis of IT investments to refresh the PC desktop. The PC desktop includes the desktop and notebook PC client operating system, personal productivity applications, and hardware.

TVO is a Gartner methodology for determining the overall business value expected from an IT-enabled business initiative. TVO takes up where traditional total cost of ownership (TCO) methodology leaves off. TVO includes IT cost-based measurements and business-related measurements that are not part of TCO or other IT cost-based methodologies. The essential point of conducting TVO analyses for desktop client refresh is to assess the value that can be realized in areas outside of IT cost. TVO results are reported in a specific set of TVO parameters as well as traditional valuation measures.

The studies documented in this report were conducted during 2003 at 22 enterprise customer organizations<sup>2</sup> throughout the world. These companies, which represent a variety of sectors in business, government, and education, use a total of more than 713,000 desktop and notebook PCs. Nine of the companies conducted complete TVO analyses, which were assessed<sup>3</sup> by Gartner Inc.; the other companies chose to do partial TVO analyses in line with their business priorities.

### TVO Results

Results of the TVO studies show that for the organizations profiled in this report, traditional IT metrics, measured as IT Responsiveness, represent only 29 percent of the value derived from refreshing the desktop client PC. Exhibit 1 shows that the majority of the financial value of refreshing the desktop PC is found in non-IT-related categories.

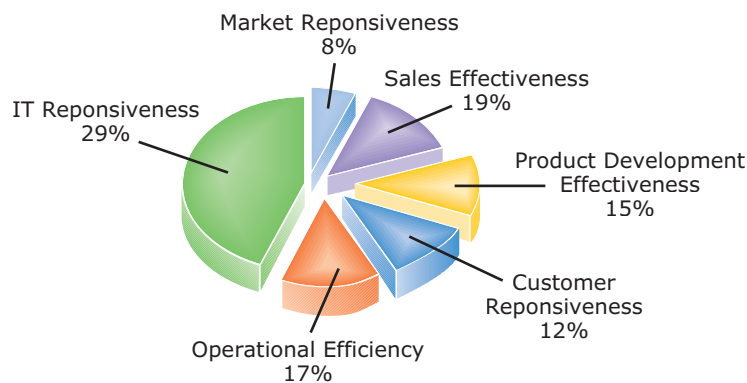


Exhibit 1 – Relative Value of Technology in TVO Studies

<sup>1</sup> For more information about Gartner TVO methodology, go to <https://tvo.gartner.com/home/> or Appendix B, "Gartner Total Value of Opportunity Methodology" later in this report.

<sup>2</sup> For more information about the participating organizations, see Appendix A, "About This Report."

<sup>3</sup> The TVO software model is based on a methodology researched and developed by Gartner, Inc. Gartner has examined the data collection methods of Microsoft and Intel, and has concluded that the methodology employed conforms to Gartner's approved methods. The results are based on the specific outcome of a client implementation and should not be construed as an industry view. This statement is not, and should not directly or by implication be taken as an endorsement by Gartner of any Microsoft or Intel product or service.

For decision-makers who have previously made IT investment decisions based principally on TCO and IT-related metrics, it is an important new discovery to realize that nearly 75 percent of the value of refreshing the desktop client is derived directly from business-related benefits.

While the metrics shown here reflect the unique circumstances of each of the organizations profiled, the key takeaway is that IT benefits alone are not sufficient to base business-critical decisions about refreshing the desktop client PC.<sup>4</sup>

Exhibit 2 shows the total value and the value per PC per year based on the TVO analyses for the organizations profiled in this report.

Gartner Business Performance Framework	TVO Aggregate	All TVO Studies	
		Total Value	Value / PC / Year
Demand Management	Market Responsiveness <sup>5</sup>	\$13,059,730	\$2,612
	Sales Effectiveness	\$32,155,392	\$616
	Product Development Effectiveness	\$26,336,022	\$1,177
Supply Management	Customer Responsiveness	\$20,991,209	\$320
	Supplier Effectiveness	n/a	n/a
	Operational Efficiency	\$28,269,490	\$338
Support Services	Human Resources Responsiveness	n/a	n/a
	IT Responsiveness	\$49,177,972	\$408
	Finance and Regulatory Responsiveness	n/a	n/a

Exhibit 2 – TVO Results: Average Value per PC per Year for Participating Organizations

It is interesting to note that for the companies profiled, none are projected to derive value in the Supplier Effectiveness, Human Resource Responsiveness, or Finance and Regulatory Responsiveness Aggregates. This has more to do with the unique nature of each of these customers, their business, and operations management and is not a reflection of the TVO methodology. Other companies may or may not derive value in these TVO Aggregates depending upon their unique circumstances.

More detailed information that describes the results of the Gartner TVO analysis and a more detailed discussion of TVO methodology are presented in the section, “Gartner Business Performance Framework™ and Total Value of Opportunity” later in this report.

## Traditional Measures of Valuation

In addition to the TVO analysis, each organization’s investment was measured as any other capital investment by using time-tested valuation methodologies that conform to generally accepted accounting practices.

<sup>4</sup> These values are not intended to provide exact numeric guidelines on the potential value other customers may achieve, but to underline key value areas identified by the customers in this report.

<sup>5</sup> Value derived external to company from estimated revenue as a result of new service offering based on a new Microsoft and Intel client platform. See Case Study: Telecommunications # 1, Demand Management, Market Responsiveness, later in this report.

Results presented here include nine complete TVO studies that have been assessed by Gartner, Inc. and other studies that utilized parts of the TVO methodology for consistency in analysis. The average value and range of values for each study group are presented in Exhibit 3.<sup>6</sup>

Traditional Valuation Measure	All TVO Studies		Gartner Assessed TVO Studies	
	Average Value	Range of Value	Average Value	Range of Value
Internal rate of return	115%	26% to 199%	99%	26% to 199%
Return on investment	218%	55% to 583%	206%	55% to 479%
Payback period	14 months	12 to 23 months	16 months	12 to 23 months
Discount rate <sup>6</sup>	10.9%	10% to 15%	11.3%	10% to 15%
Number of PCs per organization	30,000+ seats	2,500 to 120,000+ seats	30,000+ seats	2,500 to 120,000+ seats

Exhibit 3 – Traditional Valuation Measures for All Participating Organizations

Each participating organization anticipates a positive return on investment that will help it to:

- Reduce IT operating expenses.
- Significantly improve IT capabilities including reductions in various costs and improved efficiency in various IT processes.
- Improve information worker productivity.

### Gartner Five Pillars of Benefit Realization

Some organizations also used the Gartner Five Pillars of Benefit Realization methodology to conduct a qualitative assessment to determine their ability to realize the potential business value of investment in Microsoft and Intel technologies.

Each of these organizations determined that the likelihood of attaining their business goals using a client PC solution composed of a Microsoft client operating system, Microsoft productivity applications, and Intel Architecture-based hardware can be readily accomplished.

As of the publication of this report, many of the organizations profiled plan to deploy solutions based on Microsoft operating system and productivity software and Intel Architecture-based hardware before or during their next hardware refresh cycle. An aggregate of more than 713,000 desktop or notebook PCs will be affected by these deployments.

<sup>6</sup> Two outliers of 3 percent and 27 percent are not included in this range as they represent unusual environments and circumstances. The weighted cost of capital for one European financial institution was unusually low (3 percent), while for a South American manufacturing company it was 27 percent due to an extraordinarily high rate of inflation in its country.

## Introduction

Investing in information technology (IT) during uncertain economic times can make even the most seasoned executive pause before signing the check. Yet, in even the best economic climate, saving money alone may be insufficient to justify the costs of IT investments. The question is, how do business decision-makers assess the value of specific IT investments, when it may be challenging to identify exactly how a specific solution helps their organization?

This section discusses the financial contribution that desktop software and hardware can make to information worker productivity and describes the Gartner TVO approach to measuring improvements in business performance enabled by refreshing the PC client in a timely manner.

### Using the PC Desktop to Improve Information Worker Productivity

All executives surveyed as part of the TVO analyses are concerned with growing top-line revenue, controlling costs, and improving operating margins. Yet achieving each objective is in part governed by information worker productivity and improved workflow processes, which if effectively improved by IT, can help ensure that these fundamental business goals are realized.

However, when it comes to providing direct financial benefit to an organization, the single most important tool in an information worker's toolkit—the desktop or notebook PC and the productivity software that he or she uses every day—is often the most overlooked and unrecognized enabler of productivity and greater IT efficiency.

In a legitimate effort to control costs, many organizations delay their refresh cycle for new PC hardware and with it the adoption of newer PC operating systems and productivity applications. Although this approach saves hard money that improves the bottom line in the short run, it is often not the best long-term decision.

Slower adoption of modern hardware and productivity software can stifle productivity from the workers who provide the greatest financial value to the organization. Also, delayed adoption can actually cost organizations more money from increased IT support requests, increased PC management costs, ineffective security measures, and other direct and indirect IT costs.

A video case study profiling Siemens Business Systems produced by Intel notes that Siemens experienced a 1-percent failure rate for PCs within the first three years of life and a 3-percent failure rate for PCs that are five years or more older.<sup>7</sup> It should be noted that PC warranties usually expire at the end of three years, which adds to hardware maintenance costs.

<sup>7</sup> For additional information on the costs associated with delaying the hardware refresh cycle, view the video case study on Siemens Business Systems produced by Intel: <http://intel.com/ebusiness/upgrade/reducecosts.htm>



If organizations upgrade their PC operating systems and primary enterprise-wide productivity applications but not their PC hardware, they will probably receive sub-optimal returns on the use of the software, simply because the software runs on PCs that are not designed for the latest innovations in the software. For example, Intel's Pentium 4 Processor with Hyper-Threading Technology (HT Technology) takes advantage of the multi-thread capability in Microsoft's latest client operating system, Windows XP Professional, enabling it to perform up to 25 percent faster.<sup>8</sup>

Also, the real-dollar value of having hardware that is available and reliable whenever users need it should not be underestimated. In fact, the single largest component of return on investment for all of the organizations profiled lies in the area of IT Responsiveness with 29 percent of total value. This quality is measured by a wide range of IT functionality including PC availability and reliability, help desk and IT support staff reductions, and savings in software licensing. IT Responsiveness measurements encompass both software and hardware.

As senior managers become more involved in making IT decisions, especially those that relate to achieving longer-term strategic business initiatives, they are challenged to define the metrics that accurately measure return on IT investments.

Because providing information workers with the latest PC hardware and software is often not considered to be a strategic investment, the dollar value of these fundamental business tools is not commonly or routinely measured.

A successful measurement method must derive business value and return on investment metrics that provide executives with bona fide business tools that can help them make more effective and strategic decisions. To provide the greatest value, the method must take a quantitative and a qualitative approach to ensure that both objective and subjective results are taken into account.

For the business value studies presented in this report, Microsoft and Intel turned to Gartner Inc. and its TVO methodology for a consistent and comprehensive approach to valuing the financial benefits of IT investments.

### **Gartner Business Performance Framework and Total Value of Opportunity**

The Gartner TVO methodology, a core component of the Gartner Business Performance Framework™ developed by Gartner Inc., was designed to help organizations determine the business value of their IT investments. The methodology provides quantitative and qualitative analytical tools that measure value to both the IT and the business aspects of an organization.

<sup>8</sup> For more information, on Intel Pentium 4 Processors supporting Hyper-Threading Technology go to <http://www.intel.com/info/hyperthreading>.

The Gartner Business Performance Framework is organized into three core areas:

- **Demand Management** includes all the actionable activities involved with generating demand for the products and services offered by the organization.
- **Supply Management** includes all the actionable activities directly involved with satisfying demand for the products and services offered by the organization.
- **Support Services** includes all other actionable activities involved with supporting the organization. These services operate within organizations by providing services to internal clients. They operate on business principles and provide internal services at a cost and quality that is acceptable when assessed against alternatives.

Each core category is divided into three sub-categories, referred to as Aggregates, which further describe specific value.

Exhibit 4 shows the Gartner Business Performance Framework's three core areas of value. The bolded text identifies six of the nine Aggregates, in which value was projected for the profiled organizations where complete TVO analyses were conducted. Exhibit 4 also shows the average value (measured as dollars per PC desktop per year) projected for these organizations.<sup>9</sup>

Gartner Business Performance Framework	Value Measured for Framework Aggregates (Average \$ per PC per year for participating organizations)		
	<b>Demand Management</b>	<b>Market Responsiveness</b> \$2,612	<b>Sales Effectiveness</b> \$616
<b>Supply Management</b>	<b>Customer Responsiveness</b> \$320	Supplier Effectiveness	<b>Operational Efficiency</b> \$338
<b>Support Services</b>	Human Resource Responsiveness	<b>Information Technology Responsiveness</b> \$408	Finance and Regulatory Responsiveness

Exhibit 4 – Gartner Business Performance Framework: Value for Framework Aggregates

Although the dollar value is specific to the organizations profiled, the dollar per PC desktop value reflects an outcome that can be extrapolated and applied to virtually any organization in which information and information workers play an important role. The actual dollar values may vary due to specific circumstances in different organizations, but the important point is the overall distribution of value throughout the different Aggregate categories.<sup>10</sup>

Exhibit 4 does more than just report distribution of value and metrics for specific customer organizations. It also identifies new business-oriented metrics that can be measured accurately.

<sup>9</sup> The TVO analyses were originally conducted by using each organization's local currency. However, for this report, financial results have been converted to U.S. dollars to ensure consistency in comparison and presentation.

<sup>10</sup> Other organizations may or may not receive similar value depending upon their unique business circumstances and IT infrastructure.

Before the TVO methodology was available, typical metrics that measured a desktop client refresh were sub-units of the TVO IT Responsiveness Aggregate. These early measurements were more of a TCO-based calculation than the robust 35 line-item assessment that is now available in the TVO approach. Although TCO calculations are important and represented the state-of-the-art metrics when they were first developed, they address only the IT-based cost side of the equation rather than the business value that an organization can achieve.

Using the TVO methodology makes it easier to objectively assess the business value of investing in a desktop refresh because the value categories are more clearly defined and relevant to both IT and business stakeholders.

Although Exhibit 4 provides a preliminary map of the value projected for the Microsoft customers profiled, the TVO assessment process is a valuable exercise that any organization can undertake to identify important categories of business value that can be achieved from a timely or accelerated desktop refresh.

All organizations profiled in this report expect to derive business value by using two specific Microsoft technologies on the desktop, Microsoft Windows XP Professional and Microsoft Office 2003.<sup>11</sup>

Some organizations also ran pilot programs to test the use of tablet PCs running Windows XP Tablet PC Edition.<sup>12</sup> Other organizations intend to use Windows SharePoint™ Services, a service of Microsoft Windows Server™ 2003, to improve collaboration by using a Web-based team collaboration environment.<sup>13</sup>

The TVO studies also assessed the financial value of running the Windows XP client operating system and the Microsoft Office productivity applications on Intel Architecture-based hardware.

These computers were either desktop PCs operating with an Intel® Pentium® 4 Processor with HT Technology or notebook PCs based on the Intel® Centrino™ mobile technology. Tablet PCs primarily used Intel Pentium III Processors. In all instances, Intel Architecture-based hardware made significant contributions in the IT Responsiveness Aggregate and its Performance sub-category. For a more detailed description of the business value of Intel Architecture-based hardware, refer to “How PC Hardware Influences Business Value” later in this report.

For a more detailed description of the Aggregates, Primes, and the number of organizations at which business value was identified, see Appendix C, “Business Performance Framework - TVO Measures of Value.”

The remainder of this report focuses on the six Aggregates in which the participating organizations are projected to find value from their investment in Microsoft-based software and Intel-based hardware for their desktop and notebook PCs.

<sup>11</sup> Each organization intends to deploy different editions of Microsoft Office 2003. For more information about the different Office 2003 editions, go to: <http://www.microsoft.com/office/preview/choosing/default.asp>.

<sup>12</sup> For more information about tablet PCs and Windows XP Tablet PC Edition, go to <http://www.microsoft.com/windowsxp/tabletpc/default.asp>.

<sup>13</sup> For more information about Windows SharePoint Services go to <http://www.microsoft.com/windowsserver2003/technologies/sharepoint/default.aspx>.

## Quantitative Results Validate Direct Relationship Between PC Desktop Refresh and Tangible Business Value

This section describes quantitative results of the TVO-based business value studies.

These results demonstrate that deploying a desktop PC or notebook PC solution based on the Microsoft Windows XP operating system, Microsoft Office 2003 productivity programs, and Intel Architecture-based hardware can contribute to improvements in operational efficiencies for both end users and the IT departments of participating organizations. Adopting these technologies can result in distinct and compelling improvements in end-user productivity that helps to drive revenue and reduce overall operating expenses.

This section briefly describes the business situation and business value projected for 11 of the participating organizations. The results are grouped by various TVO Aggregates and their respective Prime subcategories. Not all organizations are projected to receive benefit in each Aggregate or Prime; therefore, summaries of typical experiences are presented.

Exhibit 5 highlights each of the case studies presented in this section.

Aggregate	Participant	Prime	Technology Enablers	Improvement	Projected Value
Customer Responsiveness	Banking/financial services # 2	Material Quality	■ □	Improved process flow of customer information	\$174 per desktop per year
	Telecommunications # 1	Service Performance On-time Delivery	■ □ □	Improved SLA performance	1% improvement in both Service Performance and On-time Delivery Primes
IT Responsiveness	Telecommunications # 2	IT Total Cost Index	■ □ □	Improved computer peripheral support	\$174 per desktop per year
	Education # 1	IT Total Cost Index	■ □ □ □	Standardized desktop improved IT management and improved productivity.	\$2,022 per desktop per year inclusive of lower desktop management
	Banking/financial services # 5	IT Support Performance	■ □	Standardized desktop improves IT efficiency	\$133 per desktop per year
Market Responsiveness	Telecommunications # 1	Product Portfolio Index	■ □ □	New and renewed IT outsourcing contracts increase revenue	\$105 million in net profit over three years
Operational Efficiency	Telecommunications # 2	Conversion Cost	■ □ □	Product training costs reduced Staff reduction	Total \$1,425 per desktop per year \$767 per desktop per year decrease in product training costs \$658 per desktop per year in staff reduction
	Telecommunications # 1	Conversion Cost	■ □ □	Cost of office space decreases as users go mobile.	\$216 per desktop per year

■ Office 2003    ■ Windows XP    □ Intel Pentium 4 Processor with HT Technology    □ Intel Centrino Mobile Technology

Exhibit 5 – Overview of Projected Value for Selected Organizations

Aggregate	Participant	Prime	Technology Enablers	Improvement	Projected Value
Operational Efficiency (continued)	Government # 1	Conversion Cost	■ ■ □	Security and manageability are maintained, and productivity is increased.	Productivity savings of \$1,487 per user per year. Risk exposure is reduced by 15% to 20%; Time necessary to respond to critical situations decreases by 3%.
	Energy/transportation # 1	Conversion Cost	■ ■ □ □	Replaces current proprietary remote access solution	A 25% saving of dial-in call costs is valued at \$65 per desktop per year.
	Banking/financial services # 3	Conversion Cost	■ ■ □	Office accommodation costs reduced	\$108 per desktop per year
	Banking/financial services # 1	Loan Process Quality	■ ■ □	Loan loss provisioning reduced.	\$382 per desktop per year
Product Development Effectiveness	Banking/financial services # 2	Time to Market Index	■ ■ □	Time to market for market reports reduced.	A 1% improvement in the Time-to-Market Index Prime is valued at \$1,559 per desktop per year.
Sales Effectiveness	Banking/financial services # 1	Sales Cycle and Sales Opportunity Index	■ ■ □	Accelerated sales cycle due to less data analysis time and more efficient workflow	Total value of \$1,085 per desktop per year: A 1% improvement in Sales Opportunity Index Prime valued at \$375 per desktop per year A 0.5% improvement in Sales Cycle Index valued at \$710 per desktop per year

■ Office 2003    ■ Windows XP    □ Intel Pentium 4 Processor with HT Technology    □ Intel Centrino Mobile Technology

Exhibit 5 (continued) – Overview of Projected Value for Selected Organizations

## Summaries of TVO Results

The remainder of this section describes each of the Gartner Business Performance Framework Aggregates and summarizes the business value that participating companies derived from them. The italicized text defining each TVO Aggregate is taken from the Gartner TVO methodology.

### Demand Management: Market Responsiveness

*Market Responsiveness measures the ability of a technology to help identify and validate customer needs now and in the future in current and targeted markets, identify and validate competitive opportunities and threats, and develop and deliver appropriate messages to convey the value of goods and services offered by the organization.*

#### Case Study: Telecommunications company # 1

##### Revenue increase expected from new IT outsourcing contracts.

All of the organizations assessed are projected to derive financial value in the Market Responsiveness Aggregate under the Product Portfolio Prime. However, a leading European provider of telecommunication and IT outsourcing services chose to quantify this value.

This company upgraded from PCs running the Microsoft Windows 9x client operating system and the Office 97 productivity suite to Windows XP Professional and Office 2003. The company conducted the upgrade as a pilot for offering the same desktop solution to its IT customers. Although the internal deployment is expected to reduce overall operating expenses and lower costs through improved information worker productivity, new revenue derived from developing a new product offering is the business value most important to this company.

The company expects that offering Windows XP Professional and Office 2003 operating on PCs running on Intel Pentium 4 Processors with HT Technology as a desktop standard for its customers will deliver approximately U.S. \$105 million in net profit over three years from new or renewed IT outsourcing contracts.

### **Demand Management: Sales Effectiveness**

*Sales Effectiveness measures the ability of technology to assist in optimizing customer relationships based on the marketing message and unique capabilities of the organization, including the ability to provide information used to forecast specific customer needs for the products and services offered by the organization.*

Four of the organizations expect to experience financial benefits in this area.

#### **Case Study: Banking and financial services # 1**

##### **Increase in number of loans processed due to shorter sales cycle time.**

At a large bank with more than 100,000 PCs, information workers spend from 15 to 40 percent of their time doing pre-sales activities that use customer data as baseline inputs. Unfortunately, data is pulled from the main systems only once a month, and the information is not as up-to-date as the sales team needs it to be. This situation affects the team's ability to create effective sales proposals and caused a decline in customer satisfaction. The company, which used mostly non-Microsoft desktop software, needed to replace this system with a more up-to-date, industry-standard desktop that will enable them to establish company-standard templates. The sales team expects that the templates will enable them to improve access to data and improve their communications process with customers.

The solution, Windows XP Professional and Office 2003 operating on PCs running Intel Pentium 4 Processors with HT Technology, is expected to help drive down the time used for customer data analysis by reducing the number of steps in the workflow process and to speed up communications with customers. The company anticipates a decrease in its overall sales cycle time, improved customer satisfaction, and the opportunity to process more loans.

Based on the TVO analysis, the company anticipates a one-percent improvement in its Sales Opportunity Index Prime, which is valued at U.S. \$375 per desktop per year and a 0.5-percent improvement in its Sales Cycle Index valued at U.S. \$710 per desktop per year. The combined projected value of this improvement is U.S. \$1,085 per desktop per year.

## **Demand Management: Product Development Effectiveness**

*Product Development Effectiveness measures the ability of technology to assist in creating new capabilities to meet the changing needs of the customers to be served in new targeted markets or currently being served in existing markets.*

Two organizations, a European bank and financial services provider and a telecommunications provider that offers outsourced IT services, are projected to experience financial benefits in this area.

### **Case Study: Banking and financial services # 2**

#### **Accelerated time to market for market reports helps to increase sales opportunities.**

With more than 10,000 PC desktops running Microsoft Office 97 on Microsoft Windows NT™ Workstation version 4.0 or Windows 9x, a banking and financial services company originally perceived little value in upgrading to a desktop consisting of Windows XP Professional and Office 2003. In essence, the company was willing to maintain this legacy platform for several more years to optimize their investment.

The company however, was experiencing customer dissatisfaction throughout its branch network interactions. The bank faced regulatory and governmental changes that included the possible adoption of the European Union currency and the anticipated completion of a merger by the end of 2004. As a result, the bank knew its existing PC desktop platform would be challenged to meet these new requirements. These circumstances prompted the bank to look for a more capable PC desktop based on current industry standards.

Based on the TVO analysis, the bank has decided to implement a new Intel Architecture-based PC desktop and a Microsoft-based collaboration solution. The company expects that this IT investment will provide a centralized location from which to examine data and customer information as well as improve collaborative capabilities of its information workers. This approach is expected to reduce the time to market for highly time-sensitive capital market reports, reduce the sales cycle, and improve the sales opportunity process.

The TVO analysis indicates that the company can anticipate a 1-percent improvement in the Time to Market Index Prime valued at U.S. \$1,559 per desktop per year.

## **Supply Management: Customer Responsiveness**

*Customer Responsiveness measures the activities directly involved with completing specific customer order or service and providing visibility into the status of completing a specific order or service.*

*Customer Responsiveness is the point at which Demand Management affects Supply Management.*

*Customer Responsiveness drives the other Supply Management Aggregates.*

Three banking and financial services companies and a telecommunications firm are projected to experience financial benefits in this area.

### **Case Study: Banking and financial services # 2**

#### **Customer satisfaction increased by using XML-based forms to standardize contract information.**

This bank experienced difficulty in identifying and updating errors in its existing customer contracts during the sales cycle. Errors were sometimes found after customers had already signed a contract. These errors caused rework in the rewriting and signing of contracts and contributed to a decline in customer satisfaction.

To transform this process, the company plans to implement a new enterprise-standard, form-based contract that uses Microsoft Office InfoPath™ 2003, a new Extensible Markup Language (XML)-based application in Office 2003. InfoPath can help teams and organizations gather and share information by creating rich, dynamic forms that enable users to collect, access, and reuse information more easily. Use of InfoPath technologies will enable the bank to manage and track forms more efficiently through its workflow process.

Because XML enables easy integration with legacy systems, banking and customer-specific information can be filled in easily, which assures bank customer service representatives and customers of current information that can aid in decision making. This approach can lead to higher customer responsiveness and satisfaction when a customer requests status information about a particular banking product.

Because the bank is evaluating InfoPath on Intel Pentium 4 Processors with HT Technology, they can take advantage of Intel NetBurst™ architecture which enables XML parsing to be 5.95 times faster compared to a typical enterprise PC desktop.<sup>14</sup>

The bank anticipates that by using InfoPath technologies, they can realize an improvement in the Materials Quality Prime of the Customer Responsiveness Aggregate that is valued at a projected \$174 per desktop per year.

### **Case Study: Telecommunications company # 1**

#### **Customer service is improved, and the support staff is decreased by improved desktop stability.**

For its IT outsourcing business, a telecommunications company expects to enhance customer service by using Intel Pentium 4 Processor-based PCs with HT Technology running Windows XP Professional and Office 2003 to improve its support capabilities due to a more stable and available desktop.

This solution will help to improve customer service by helping the company to meet or exceed service level agreements (SLAs) and reduce staffing requirements for desktop support. One-percent improvements in the Service Performance and On-time Delivery Primes are anticipated.

<sup>14</sup> For more information about Intel NetBurst architecture and performance go to [http://www.intel.com/business/bss/swapps/office\\_system/index.htm](http://www.intel.com/business/bss/swapps/office_system/index.htm).



## **Supply Management: Operational Efficiency**

*Operational Efficiency measures the value-added activities performed internally to create the goods and services offered by the organization including the material requirements, planning, and optimization resources.*

Eleven of the profiled organizations, which represent business, government, and education sectors, are projected to experience financial benefit in this area.

### **Case Study: Telecommunications company # 2**

#### **Training and staffing costs decrease due to collaboration and media technologies.**

A leading European telecommunications company operates more than 20,000 desktops that run Office 97 on Windows NT Workstation version 4.0 at 34 office buildings and more than 75 retail locations. Despite high operating expenses, this company perceived the cost of upgrading to a desktop composed of Windows XP Professional and Office 2003 to be too high to provide any meaningful financial value. After they looked at various savings projected by the TVO analysis, the company reconsidered its position.

For example, in-class product training required 80 percent of the budget allocated for training for each employee. The new Windows Media Player 9.0 enabled on-demand e-learning opportunities that are projected to decrease product training costs.

The collaboration technologies of Windows XP Professional, Office 2003, and Windows SharePoint Services are projected to assist the company in reaching its stated target of 25 percent reduction of staffing costs (either through retrenchment or a freeze on recruitment) over the next few years by improving workforce efficiency and productivity.

The TVO analysis projected values of U.S. \$767 per desktop per year in decreased product training costs and U.S. \$658 per desktop per year in staff reduction, a total projected value of U.S. \$1,425 per desktop per year.

### **Case Study: Energy and transportation company # 1**

#### **Telecommunications costs decrease due to improved remote access technology.**

A global energy company with more than 50,000 desktops was faced with extremely high pressure to improve operational efficiency by reducing network access costs for its mobile workforce. Upgrading to the latest Microsoft and Intel Architecture-based PC solution will enable the company to replace its current virtual private network (VPN) solution with native VPN capability.

This approach will help to reduce IT support costs and enable scale-up of the new solution to become the dominant remote access technology. The improved, scalable solution will also help to reduce user dial-up costs, which are currently borne by individual business units. In the new solution, worldwide VPN access is enabled by local Internet service providers (ISPs).

This solution is projected to save the company an estimated 25 percent of its current dialup call costs of approximately U.S. \$16 million per year or U.S. \$4 million across the entire company. The projected value of this benefit is U.S. \$65 per desktop per year. These benefits are categorized in the Conversion Costs Prime.

**Case Study: Telecommunications company # 1**

**Rental and operational costs decrease due to lower telecommuting costs.**

A telecommunications company was in the process of deploying Windows XP Professional and Office 2003 as the company's standard desktop. The company is projected to increase the number of telecommuters in its workforce. This scenario could result in a 6-percent decrease in office rental costs and a decrease in the costs of associated materials and services.

This benefit, which has a projected value of U.S. \$216 per desktop per year, is categorized in the Conversion Cost Prime.

**Case Study: Banking and financial services # 3**

**Secure, reliable remote access capability reduces office accommodation costs.**

Introducing the concept of home or remote workers and mobile workers (who do not have allocated office space but share hot desks or use wireless connections when onsite) to another banking and financial services company could greatly reduce high office accommodation costs.

Using Intel Centrino mobile technology-based notebook PCs and Windows XP Professional features that support secure and reliable remote computing and wireless local area network (WLAN) connections would help to enable this shift towards remote, mobile, and wireless operations. With more than 22,000 desktops this company expects benefits projected at a value of U.S. \$108 per desktop per year.

**Case Study: Banking and financial services # 1**

**Loan process quality improves due to better collaboration and use of XML-tagged data.**

A leading European bank is projected to experience value in the Operational Efficiency Prime by taking advantage of an improved loan process. In its current environment, the bank shares loan process information by e-mail messages and Excel spreadsheets without using a centralized or departmental repository of digitized data. Everything is stored centrally on paper. Sometimes, the loan process can take several weeks because customer data is not easily documented or communicated in digital form. Workers spend an estimated 60 percent of their time re-keying information into various systems.

The bank's new system, which is based on Office 2003 and Windows XP Professional running on Intel Pentium 4 Processor-based PCs with HT Technology, will modify the workflow so that collaboration between workers can occur and ensure that the right people have the right information at the right time. XML-tagged data will enable new applications to exchange data with legacy systems seamlessly.

This solution will reduce the loan loss provision cycle time and help to improve customer satisfaction. The value of this benefit is projected at U.S. \$382 per desktop per year.

**Case Study: Government # 1**

**A standardized desktop reduces IT costs and helps to improve security, manageability, and productivity.**

A state government in the United States has a mixed computing environment. This environment, which consists of 80 percent Windows 2000 Professional and various Windows client operating systems running on mixed hardware, did not have centralized IT management or purchasing capabilities. Agency IT specialists sought to create a state-wide standard for purchasing software in an environment where many of their workers needed to access legacy applications. Of special importance was the need to ensure high levels of security and manageability while enabling increased worker productivity.

The state’s chief information officer (CIO) looked to PCs based on the Intel Pentium 4 Processor with HT Technology running Windows XP Professional and Office 2003 to help resolve the agency’s challenges. The use of Information Rights Management policies available in Office 2003 to ensure the privacy and protection of sensitive and important personal information for millions of state residents provided the agency with particular value.

Exhibit 6 shows the relative value of security and privacy benefits offered by Intel Architecture-based hardware, Office 2003, and Windows XP to this state agency.

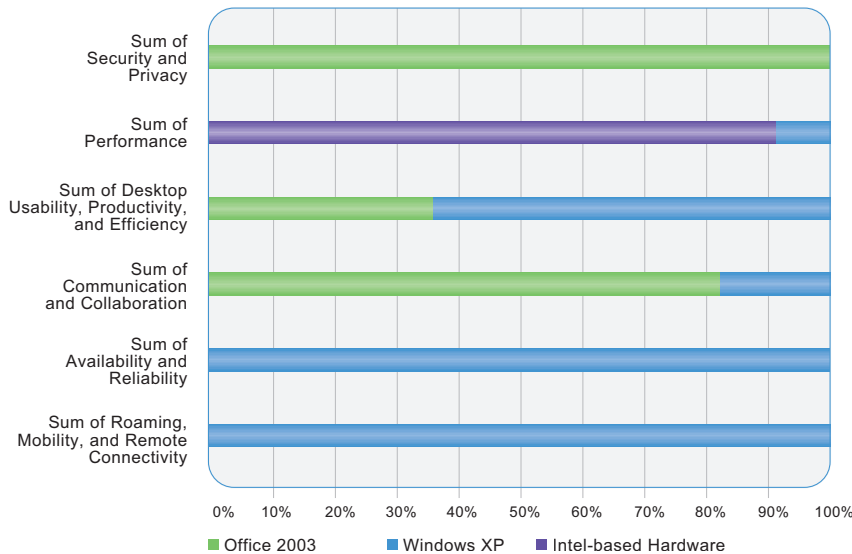


Exhibit 6 – Value of Data Security and Privacy Using Office System 2003

The state’s CIO expects the greatest benefits to occur in the areas of user productivity, improved system response time, decreased help desk support, and lower overall IT costs. The TVO analysis projected productivity savings of U.S. \$1,487 per user per year, a reduction of

risk exposure by 15 to 20 percent, and a 3-percent reduction in the time needed to respond to critical situations.

### **Support Services: IT Responsiveness**

*IT Responsiveness measures the effectiveness, reliability, and enablement of collaborative business relationships and the agility of IT resources in an organization.*

Although all organizations are projected to experience financial benefit in this area, this section highlights only several that demonstrate business value in different areas of IT Responsiveness.

#### **Case Study: Telecommunications company # 2** **A standardized desktop reduces IT support costs.**

A leading European telecommunications company operates desktops running Office 97 on Windows NT Workstation version 4.0 in 34 office buildings and more than 75 retail locations. At this company, the TVO analysis focused primarily on assessing the value of lowering the TCO of the company's current desktop solution.

The TVO analysis identified a projected value of U.S. \$174 per desktop per year for the new standard desktop. The value is generated by lower IT support costs that included improved peripheral support (\$143 per desktop per year), decreased onsite support staff (\$18 per desktop per year), and a lower volume of help desk calls (\$13 per desktop per year).

#### **Case Study: Education # 1** **Standardized Microsoft desktop helps lower IT costs compared with open source productivity applications.**

A leading European business college with PCs running the Windows 98 client operating system and Office 97 productivity applications was under constant pressure to reduce costs because a significant part of their funding is sourced from their national government. In an effort to lower costs yet remain functionally compatible with their colleagues, the college looked at deploying StarOffice as an alternative to Microsoft Office in the hope that lower startup costs would translate into lower total operating expenses.

The TVO analysis projected that, if instead of migrating to StarOffice, the college upgraded to a standard desktop composed of Windows XP Professional and Office 2003 on Intel Pentium 4 Processors with HT Technology for desktop PCs and Intel Centrino mobile technology-based notebook PCs, the college could save an estimated U.S. \$351,000 in a five-year period. This would help it achieve its mandate of reducing costs but would also ensure compatibility with its government sponsoring agencies, colleagues, business partners, and alumni.

The business analysis projects a value of U.S. \$1,824 per desktop per year from the following improved IT efficiencies:

- Avoiding desktop management costs (\$720 per desktop)
- Minimizing desktop re-imaging costs (\$648 per desktop)
- Using e-learning capabilities rather than internal training (\$319 per desktop)
- Increasing operational efficiency by avoiding new training required by desktop conversion (\$137 per desktop).

The college anticipates a 132-percent internal rate of return (IRR), a 199-percent return on investment (ROI), and a 15-month payback period.

**Case Study: Banking and financial services # 5**

**Standardized desktop reduces IT expenses and help desk support.**

A large, U.S.-based risk and insurance services firm operated desktops running primarily Windows 98, Windows NT Workstation version 4.0, and Windows 2000 Professional. Challenged by multiple mergers and acquisitions, the company needed to standardize on a common desktop platform, which by locking down the desktop, will help reduce help desk support and lower IT operating expenses.

The firm wants to deploy a desktop consisting of Windows XP Professional, which will lower IT costs through improved manageability, availability, and reliability and Office 2003, which is expected to help improve user productivity by increasing usability and individual efficiency and productivity on Intel Pentium 4 Processors with HT Technology. The solution will be deployed in the United States and then implemented in the company's other global business units. The company is currently engaged in pre-deployment planning.

Deployment of Windows XP Professional will complement the company's current migration to a Windows Server 2003 environment by using the Active Directory® directory service. The company anticipates a value of U.S. \$133 per desktop per year from improved IT efficiencies.

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Note: Within the IT Responsiveness Prime, IT Capabilities has 35 subcategories, four of which—Availability, Business Process Speed Increase, Increased Access, and Increased Sharing and Collaboration—were rated as Very Important by all participating organizations.

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## **How PC Hardware Influences Business Value**

Each profiled organization uses or intends to use Intel Architecture-based hardware. For desktop PCs, they plan to use Intel Pentium 4 Processors with HT Technology; for notebook PCs, they plan to use Intel Centrino mobile technology and Pentium III Processors for tablet PCs.

The advantages of Intel Architecture-based hardware are most apparent in the IT Responsiveness Aggregate, which is grouped under the Performance Prime. Within this category, the availability and reliability of the PC was considered most important to ensuring IT cost reduction and measurable value to the organization.<sup>15</sup>

The importance of hardware performance may not be immediately evident to business leaders. Consider the value of an organization's business- or mission-critical productivity applications. If the computer hardware is performing sub-optimally or worse, not performing at all, the net affect is a significant reduction in user productivity. Hardware performance—or lack of it—should not be the bottleneck to ensuring end user productivity.

If looked at from a business rather than a solely IT perspective, it is clear that business solutions require a PC that can effectively run the applications on which the business depends. The length of the PC hardware refresh cycle, the PC operating system, and standard productivity applications are best determined by what a business needs to accomplish by using PC-based technology and how quickly benefits will be realized, not how much or little that the desktop PC hardware costs.

The technical advantages of Intel processors that support Hyper-Threading Technology are not the subject of the TVO analyses or this report.<sup>16</sup> However, the business benefits derived from improved PC performance (due in part due to this technology) were measured in four of the TVO studies including energy, manufacturing, services, and government.

Although the results varied with each organization due to different business applications and IT environments, in each case, Intel Architecture-based hardware helped to improve end-user productivity by increasing PC performance.

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<sup>15</sup> To find out more about Intel's perspective on PC refresh, go to <http://www.intel.com/ebusiness/upgrade>.

<sup>16</sup> To find out more about Intel Hyper-Threading Technology, read the Intel white paper "Intel Pentium 4 Processor with HT Technology" by going to <http://www.intel.com/personal/products/pentium4/hyperthreading.htm>.

Exhibit 7 shows the projected results for four organizations at which the value of using Intel Architecture-based hardware was analyzed.

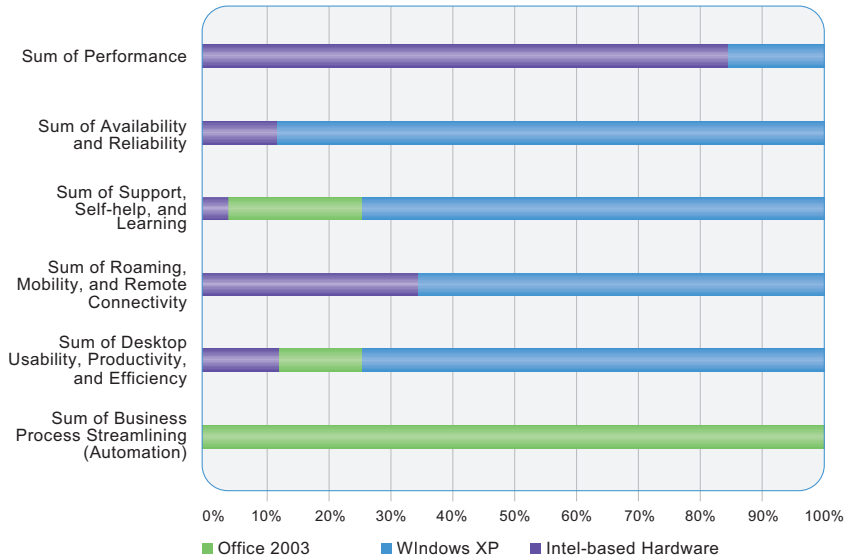


Exhibit 7 – Value of Intel-based Hardware for Four Organizations

Note that the importance of hardware is most evident in the Performance and Availability and Reliability categories. Intel Centrino mobile technology played an important role in the Roaming, Mobility, and Remote Connectivity category when compared with the importance of Windows XP Professional, as well as in Desktop Usability, Productivity and Efficiency. All of these factors were important contributors to the overall financial value assessed as part of the IT Systems Performance and IT Support Performance Primes.

As these projected results demonstrate, the influence of hardware is greatest and most pervasive in system performance, availability, and reliability.

The bottom line: without a stable and reliable PC, end-user productivity can be compromised. Operating the latest, most innovative software on older PC hardware will produce sub-optimal results. To achieve optimal results, organizations should consider using the most advanced hardware available and time the hardware refresh cycle to coincide with the upgrade in PC operating system. The incremental cost of spending more for PC hardware that offers the latest technical advantages is more than justified by the decreased end-user downtime, reduced support costs, and increased user productivity.

## Qualitative Assessment Confirms that Organizations Can Realize Value by Deploying Current Desktop Technology

The concept of conversion effectiveness, the ability of an organization to convert its IT investment into business value, is an integral component of the TVO methodology. Gartner refers to this qualitative assessment as the Five Pillars of Benefits Realization.

This assessment is very similar to a Balanced Scorecard approach to benefits analysis and yields similar results. However, the diagnostic assessment is not directly related to the quantitative analysis of the TVO methodology, and there is no causal relationship that influences outcomes.

In the diagnostic approach, five elements are subjectively assessed by the organization and weighted to create a final score. The five diagnostic elements include:<sup>17</sup>

- **Strategic Alignment**, the alignment of IT investment strategy with the realization of enterprise business goals and objectives.
- **Business Process Impact**, the requirement that the organization redesign business processes, more closely integrate the supply chain, or make similar process-intensive initiatives.
- **Architecture**, the integration, scalability, and resilience of the databases, operating systems, applications, and networks that the enterprise already has or plans to deploy.
- **Direct Payback**, the generally recognized benefits a project can deliver.
- **Risk Assessment**, the process of identifying the exposure of the proposed investment to failure or underachievement.

By October 2003, five of the eight profiled organizations that used the Five Pillars method had completed this qualitative assessment. These companies, which represent the banking, telecommunications, and manufacturing sectors, achieved an overall score of between 50 and 75 percent, which is considered a good opportunity for an organization's ability to convert IT investments into business value. In each of four instances, the organizations scored between 51 and 68 percent in their self-assessment to convert their investment into measurable financial value.

<sup>17</sup> The definition of each diagnostic element is available in Appendix D, "Five Pillars of Benefits Realization - Definitions". More detailed information about this qualitative approach to assessing conversion feasibility is available in the Gartner Strategic Analysis Report R-19-1910, published March 3, 2003. For more information go to <http://www.gartner.com>.



Exhibit 8 presents a view of these five organizations and their respective scores.

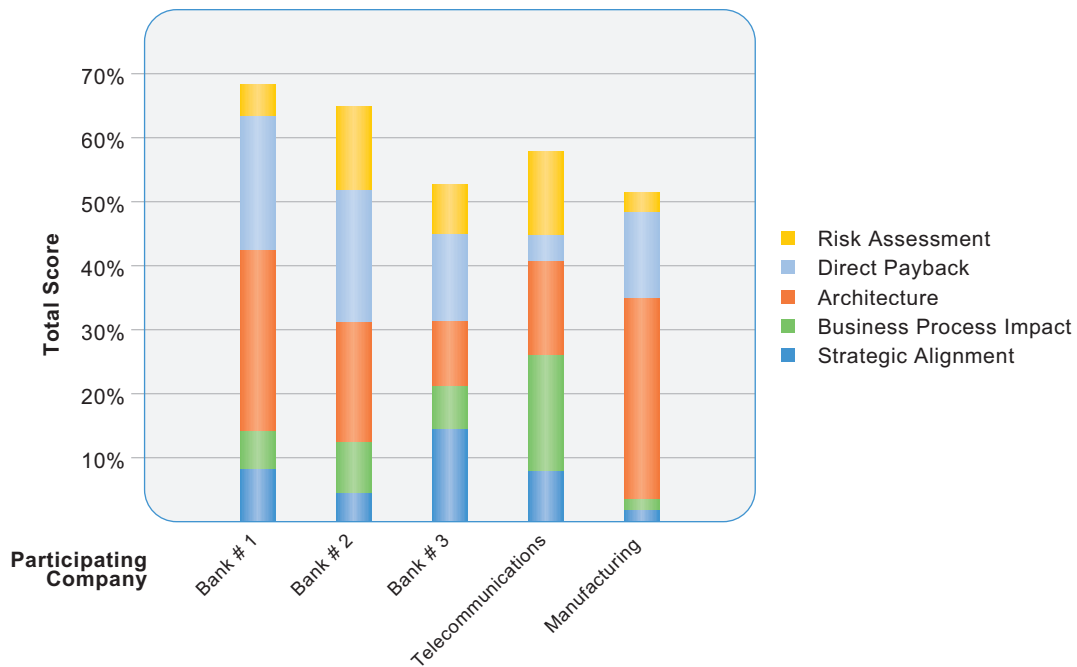


Exhibit 8 – Five Pillars Analysis for Five Organizations

Detailed scores for each organization by sector and a brief description of the diagnostic tool are located in Appendix E, “Five Pillars of Benefits Realization.”

The qualitative assessment is best used with the quantitative analysis. The combination of subjective and objective analysis provides a balanced approach to defining value that is more realistic than simply quantitative analysis. In this case, with five out of nine TVO analyses demonstrating a strong conversion factor, the logical conclusion is that the benefits of deployment outweigh any potential risks.

## Conclusions

Enterprises that evaluate the financial benefits of a PC desktop upgrade from both an IT and business perspective are better positioned to make strategic decisions about the value of a new PC desktop to their organization.

Enterprises that seek only to minimize cost are well positioned to realize positive ROI. However, because the investment is viewed only from an IT perspective, the full business value may not be realized, since not all value areas are discovered and implemented.

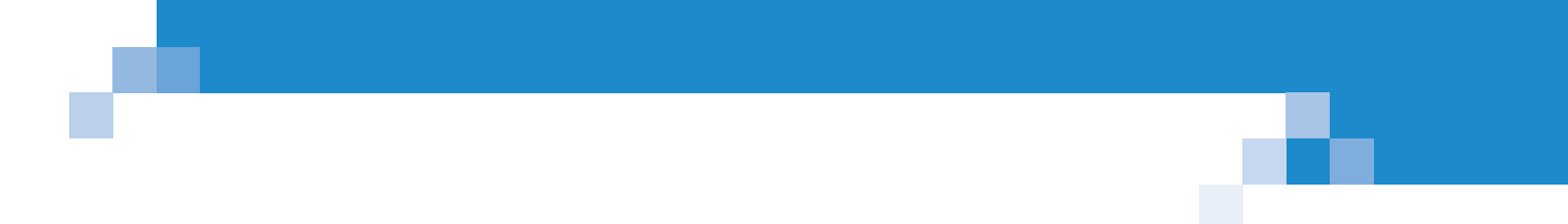
By bridging the IT and business view of IT investments, enterprises that conducted even a partial TVO analysis were better able to understand how a new desktop platform could help them achieve their organizational goals. The TVO analysis was particularly helpful in the decision-making process that led profiled organizations to commit to a more timely PC desktop refresh.

The analysis of financial benefits presented by different business scenarios enables any organization to identify key areas of value and adjust their deployment plans accordingly. This approach is especially important today because advanced collaboration capabilities and integration with business processes unlock new usage scenarios that were not feasible on older desktop platforms. The results of the TVO analyses presented in this report identify significant financial benefits in distinctly different scenarios. These results can be readily extrapolated for any organization in any business sector.

Four compelling points help to rationalize refreshing aging PC desktops to an industry-standard desktop that operates on Windows XP Professional and Office 2003 and that runs on Intel Architecture-based hardware. These considerations include:

- **A strong financial justification** for upgrading client hardware and software due to tangible productivity gains and cost savings.
- **Business benefits** from client upgrade are at least as important as IT benefits, which are the focus of more traditional cost only analysis.
- **Hardware refresh decisions** should be based on the type of business solutions that an organization plans to run during the PC lifecycle. Upgrading to hardware built with current technologies will provide a level of business value in the mid- to long-term that more than compensates for any incremental cost.
- **Significant future value**, including optional benefits by implementing Office System solutions based on the business capable Windows and Intel platform.

During the decision-making process, profiled organizations discovered that it was not always necessary to have precise financial estimates for all areas in which value is defined. The deployment of Windows XP Professional and Office 2003 typically brings enough hard TCO savings for customers upgrading from Windows 9x or Windows NT Workstation that the investment can be justified on cost savings alone.



Many of the customers in this report have found substantial value in exploring new business scenarios that use new technologies. The value in these situations may be harder to quantify but can be strategically more important to the organization than relatively simple cost-based metrics.

Using objective, analytical tools such as the Gartner TVO methodology can help any organization to assess both the technical and business benefits of IT investments and identify more precisely where and when that value can be achieved and plan their deployments accordingly.

## For More Information

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For more information about the business value of a client desktop consisting of Windows XP Professional and Microsoft Office 2003, go to:

- <http://www.microsoft.com/resources/desktop/businessvalue.asp>.

For more information about Microsoft Office 2003 and the Microsoft Office System, go to:

- <http://www.microsoft.com/office>.

For more information about Windows XP, go to:

- <http://www.microsoft.com/windowsxp/default.asp>.
- 

For more information about Intel Pentium 4 Processor with HT Technology and Intel Centrino mobile technology, go to:

- <http://www.intel.com>.
  - <http://www.intel.com/ebusiness/upgrade>.
  - <http://www.intel.com/business/bss/products/desktop/index.htm>.
  - <http://www.intel.com/ebusiness/mobile>.
- 

For more information on the business value of the Microsoft Office System and the white paper entitled “Process Goldmine: Microsoft Office System Integrated Solutions Deliver Business Value,” go to:

- <http://www.microsoft.com/office/business/value.mspx>.

For details about the overall business value of Windows XP Professional and the Microsoft white paper, “Higher Yields: The Financial Benefits of Windows XP Professional,” go to:

- <http://www.microsoft.com/windowsxp/pro/evaluation/whyupgrade/bizval>.

For information about the business value of Windows XP Tablet PC Edition and the white paper, “Empowering Information Workers: The Financial Benefits of Windows XP Tablet PC Edition,” go to:

- <http://www.microsoft.com/windowsxp/tabletpc/evaluation/financialvalue.asp>.

For more information about business value at Microsoft, go to:

- <http://www.microsoft.com/value>.

For information about Gartner Measurement and the Gartner TVO methodology, go to:

- <http://www.gartner.com>.
- <https://tvo.gartner.com/home>.

## Appendix A: About This Report

The 22 organizations participating in these TVO studies represent a range of sectors including banking and finance, education, energy and transportation, government, manufacturing, retail, services, and telecommunication.

To ensure consistency in data gathering and analysis, all studies conformed to the Gartner TVO methodology and tool set. The Gartner TVO methodology provides a consistent framework to assess the quantitative and qualitative business value that an organization derives from its IT investments.

The TVO tool provides results in a language common to business executives, qualitative strategic policy and decision-making. The tool also addresses the interests of financial executives by using internal rate of return, return on investment, payback period, and net present value as indicators of business value.

## Appendix B: Gartner Total Value of Opportunity Methodology

This is the Executive Summary of the Gartner Strategic Analysis Report R-19-1910, published March 3, 2003.<sup>18</sup>

### **TVO Methodology: Valuing IT Investments via the Gartner Business Performance Framework**

*Total value of opportunity is a metrics-based, standard methodology for comprehensive investment analysis of any IT-enabled business initiative.*

### **Management Summary**

TVO is a Gartner methodology for determining the overall business value expected to be created by an IT-enabled business initiative. TVO uses the Gartner Business Performance Framework as a standard methodology that measures the business performance impact of the initiative being modeled. This appendix describes the components of the TVO methodology.

TVO is a quantitative and qualitative value methodology that applies a standard set of thought-leading concepts and models to answer seven key value-related questions about a potential IT investment. These questions include:

- What is the initiative?
- How will we measure the business value?
- What does the technology do?
- How much benefit will we receive?
- How much will it cost through what period of time?
- How do we take future uncertainty into account?
- Is the enterprise positioned to exploit these capabilities?

For a complete value analysis (and, therefore, a business case analysis) of a potential IT investment, it is critical to ensure that each of these questions has been answered completely and in depth. This means that each question has been considered and an accepted methodology has been applied to answer it. Accepted means agreed to by the stakeholders in the investment. At a minimum, this includes financial, business unit, and IS organization sponsors.

The standard TVO methodology includes best practices, methodologies that Gartner has identified and applied to answer each of the seven value-related questions listed previously. These components of TVO help to provide a complete view of an IT-enabled business initiative, from the capability inherent in the solution that is based on a technology perspective to the ability of an organization to convert that capability into business value. The TVO components also build a trail of evidence that links the IT capabilities to the resulting projected financial model, which makes the business metrics and resulting business operations involved in unlocking that value.

<sup>18</sup> For more information, go to <http://tvo.gartner.com/home>.

## Appendix C: Business Performance Framework - TVO Measures of Value

The following table presents the Aggregate and Prime measures of value analyzed by the Gartner Business Performance Framework and TVO methodology for the organizations profiled in this report.

The bolded Aggregates and Primes indicate the areas in which value was identified for the organizations profiled. The numbers in parentheses indicate the number of organizations that identified business value for each Prime category.

	Aggregates	Primes			
<b>Demand Management</b>	<b>Market Responsiveness</b>	Target Market Index	Market Coverage Index	Market Share Index	Opportunity / Threat Index
		<b>Product Portfolio index (1)</b>	Channel Probability Index	Configurability Index	
	<b>Sales Effectiveness</b>	<b>Sales Opportunity Index (3)</b>	<b>Sales Cycle Index (3)</b>	Sales Close Index	Sales Price Index
		<b>Cost of Sales Index (1)</b>	Forecast Accuracy	Customer Retention Index	
	<b>Product Development Effectiveness</b>	<b>New Products Index (1)</b>	Feature Function index	<b>Time-to-Market Index (2)</b>	R&D Success Index
<b>Supply Management</b>	<b>Customer Responsiveness</b>	<b>On-Time Delivery (1)</b>	Order Fill Rate	<b>Material Quality (1)</b>	Service Accuracy
		<b>Service Performance (2)</b>	<b>Customer Care Performance (2)</b>	Agreement Effectiveness	Transformation Ratio
	Supplier Effectiveness	Supplier On-Time Delivery	Supplier Order Fill Rate	Supplier Material Quality	Supplier Service Accuracy
		Supplier Service performance	Supplier Care Performance	Supplier Agreement Effectiveness	Supplier Transformation Ratio
	<b>Operational Efficiency</b>	Cash – Cash Cycle Time	<b>Conversion Cost (9)</b>	Asset Utilization	Sigma Value
		<b>Customer Prime: Loan Process Quality (1)</b>	<b>Customer Prime: Average Sales Time (1)</b>		
<b>Support Services</b>	Human Resource Responsiveness	Recruitment Effectiveness Index	Benefits Administration Index	Skills Inventory Index	Employee Training Index
		HR Advisory Index	HR Total Cost Index		
	<b>Information Technology Responsiveness</b>	<b>Systems Performance (3)</b>	<b>IT Support Performance (5)</b>	<b>Partnership Ratio (1)</b>	<b>Service Level Effectiveness (2)</b>
		<b>New Projects Index (2)</b>	<b>IT Total Cost Index (11)</b>		
	Finance and Regulatory Responsiveness	Compliance Index	Accuracy Index	Advisory Index	Cost of Service Index

Exhibit 9 – Profiled Organizations Measured with the Business Performance Framework

## Appendix D: Five Pillars of Benefits Realization - Definitions

This appendix provides the inputs that answer the question, “Is our organization positioned to exploit the technology-enabled capabilities analyzed in the TVO framework?” The Pillar of Benefits Realization approach also provides the inputs for the risk analysis mentioned in the Future Value section of the TVO methodology. The Diagnostics section of this approach examines Conversion Effectiveness, the qualitative measurement of an organization's ability to convert the IT investment into business value and to set the correct expectations.

Dynamic Benefits Realization, a Gartner Consulting methodology, provides the underlying concepts for this section and identifies the Five Pillars of Benefits Realization, which include: Strategic Alignment, Business Process Impact, Architecture, Direct Payback, and Risk.

Each pillar is weighted by giving it a relative importance in the overall organization's view of making IT investments of this type. The analyst asks a set of questions for each pillar. The resulting score reflects how well the studied initiative or investment aligns with the pillars. Finally, the weighting factors and scores are combined to produce a total weighted score, which is applied against a standard Gartner measure of the appropriateness of the investment.

Exhibit 10 provides detailed descriptions of each of the Pillars of Benefits Realization.

Diagnostic Pillar	Description
<b>Strategic Alignment</b>	<p>This perspective refers to the importance the organization attaches to the medium-term or long-term alignment of IT facilities to organizational goals. Typical issues to consider include:</p> <ul style="list-style-type: none"> <li>▪ Does the organization plan to alter its structure, change the manner in which it delivers its services, or have to rapidly respond to changing customer requirements?</li> <li>▪ Does the organization intend to modify its culture, for example by empowering staff and reducing direct control?</li> <li>▪ Is there an intention to outsource key activities? If so, strategic alignment between computer systems and corporate objectives is likely to be important.</li> </ul> <p>Another point to remember is that if business plans or prospects are unclear or are likely to change significantly in the short to medium term, this weighting factor would have to be reduced because achieving strategic alignment in such circumstances would be more difficult.</p>

Exhibit 10 – Components of the Five Pillars of Benefits Realization



Diagnostic Pillar (Continued)	Description
<b>Business Process Impact</b>	<p>Does the organization require the capacity to rapidly and radically change business processes in line with changing business conditions? A business process is defined as any series of tasks leading to a stated objective. This issue is likely to be more important in industries such as IT and telecommunications but less so in discrete manufacturing, for example.</p> <p>If process transformation is important, a higher weight should be assigned to this factor because IT is a key enabler of process transformation. When this factor is especially important, many existing processes usually show signs of malfunction. Typical symptoms are capture of data more than once, inflexibility, long turnaround times, too much checking and non-value-adding controls. If this applies to the organization, particularly if it operates in a changing environment, assign a high weight to Business Process Impact.</p>
<b>Architecture</b>	<p>In the Five Pillars approach, IT architecture is represented by computer hardware, software, databases, and telecommunications facilities.</p> <p>Management often finds it hard to assign a weighting factor to this perspective, but it can be very important. A badly integrated architecture would mean that various systems fail to communicate, resulting in unproductive work and an inability to fully capitalize on information resources. For instance, if a closed architecture exists, there may not be effective links between departments or with trading partners, an increasingly important consideration.</p> <p>Some architectures can adapt well to change, others do not. Other architectures may be headed for a technological limbo, while others may be well positioned to accommodate and capitalize on new technological developments. If these factors are important to the organization, assign a high weighting to Architecture.</p>
<b>Direct Payback</b>	<p>Direct Payback relates to direct benefits such as cost savings of any kind: cost avoidance, revenue enhancement, better or faster information, and other forms of immediate, direct benefits. If these factors are important to the organization, assign a high weight to Direct Payback.</p>
<b>Risk Assessment</b>	<p>All IT projects involve organizational and technical risk to some degree. Some organizations have a risk-adverse culture, while others are more adventurous. Banks for instance always assign a very high weighting to Risk, because IT is essential to their very survival. Risk is not so important for organizations in which a system failure will not result in the shutdown of key services.</p> <p>To weight this perspective properly, ask the question, "What are the consequences for our organization if an investment in systems proves troublesome to install and to manage or which may suffer breakdowns or interruptions from time to time?"</p> <p>If the nature of the organization's business indicates that any level of disruption would have serious long-term ramifications, then weight this perspective highly. If a high weighting factor is assigned to Risk, the likelihood that the safe, predictable alternative is selected (rather than the innovative one) will increase.</p>

Exhibit 10 (continued) – Components of the Five Pillars of Benefits Realization

## Appendix E: Five Pillars of Benefits Realization

The following table, Exhibit 10, shows the results of the Five Pillars of Benefits Realization self-assessment conducted by five organizations profiled in this report. This qualitative assessment measures an organization's ability to convert its investment in IT into business value.

A score of 50 to 75 percent represents a good likelihood that benefits will be realized by the organization. All five organizations analyzed with this method scored from 51 percent to 68 percent.

Perspective	Weighting Factors (%)	Score (Average)	Weighted Score (%)
<b>Banking # 1</b>			
<b>Overall Score: 68%</b>			
Strategic Alignment	20%	4.5	9%
Business Process Impact	10%	6.0	6%
Architecture	30%	9.0	27%
Direct Payback	30%	7.0	21%
Risk Assessment	10%	4.5	5%
<b>Banking # 2</b>			
<b>Overall Score: 65%</b>			
Strategic Alignment	10%	5.0	5%
Business Process Impact	15%	6.0	9%
Architecture	20%	8.5	17%
Direct Payback	30%	7.0	21%
Risk Assessment	25%	5.0	13%
<b>Banking # 3</b>			
<b>Overall Score: 53%</b>			
Strategic Alignment	25%	6.5	16%
Business Process Impact	10%	6.0	6%
Architecture	15%	6.0	9%
Direct Payback	30%	5.0	15%
Risk Assessment	20%	3.5	7%

Exhibit 11 – Results of Five Pillars of Benefits Realization Self-assessment at Five Organizations

Perspective (Continued)	Weighting Factors (%)	Score (Average)	Weighted Score (%)
<b>Telecommunications</b>			
<b>Overall Score: 57%</b>			
Strategic Alignment	20%	4.0	8%
Business Process Impact	30%	6.0	18%
Architecture	15%	10.0	15%
Direct Payback	5%	7.0	4%
Risk Assessment	30%	4.0	12%
<b>Manufacturing</b>			
<b>Overall Score: 51%</b>			
Strategic Alignment	15%	1.5	2%
Business Process Impact	10%	2.0	2%
Architecture	35%	9.0	32%
Direct Payback	25%	5.0	13%
Risk Assessment	15%	1.5	2%

Exhibit 11 (continued) – Results of Five Pillars of Benefits Realization Self-assessment at Five Organizations

More detailed information about this qualitative approach to assessing conversion feasibility is available in the Gartner Strategic Analysis Report R-19-1910, published March 3, 2003. More information about this approach is available at <http://www.gartner.com>.





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