Rethinking IT Investments as a Portfolio & IT Savvy

Dr. Peter Weill
Chairman, Center for Information Systems Research (CISR)
MIT Sloan School of Management

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- Communicating Effectively about IT Value
- Maturing and Globalizing IT Governance

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- Managing Business Experiments: Web-based Innovations in Collaboration
- Learning from IT Projects: Effective Post-Implementation Reviews
- Benchmarks for IT Decision Making

*Managing Digitized Organizations*

- Leading the Transition to the Digitized Platform
- Designing and Managing Shared Services
- Managing the Information Explosion
- Making Sense of “the Cloud”

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- Hartford Life, Inc.
- HBOS Australia
- Intel Corporation
- International Finance Corp.
- Johnson & Johnson
- Liberty Mutual Group
- Marathon Oil Corp.
- MetLife
- Mohegan Sun
- NASA
- Nomura Research Institute, Ltd. (Japan)
- Parsons Brinckerhoff
- PepsiAmericas, Inc.
- PepsiCo International
- Pfizer Inc.
- PNC Global Investment Servicing
- Procter & Gamble Co.
- Raytheon Company
- Renault (France)
- Standard & Poor’s
- State Street Corp.
- Sunoco, Inc.
- TD Bank
- Time Warner Cable
- Trinity Health
- Unibanco S.A. (Brazil)
- VF Corporation
- Wal-Mart, Inc.
- World Bank

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Rethinking IT Investments as IT Portfolio

Based on proven and familiar principles of financial portfolio management

- Four management objectives for investing in IT
- Creates an IT portfolio with four asset classes
- Each asset class has different risk return profiles
- The role of senior management is to align the IT portfolio to strategy and balance for risk and return
- IT Savvy enterprises can get up to 40% more bottom-line value per IT dollar*
  - Self-assessment

*IT Savvy = enterprise’s ability to gain above industry average returns from IT by better management.
Why We Need IT Portfolio Management

“Times they are changin’ ...”

- Relentless cost reduction—reweighting to 25% of IT Portfolio
- Pressure on value demonstration—firms with above average IT spending and IT Savvy had net margins 20% above industry median
- Profitability via sharing—firms with above average percentage of shared applications and IT Savvy have ROA 30% above industry median
- Time to market—firms with above average IT infrastructure spend and IT Savvy grew at three percentage points higher than their industry average
- Integrating strategy and IT
  - Not fragmented, uncoordinated investments

1 Analysis: Peter Weill and Stephanie L. Woerner of 2006 MIT SeeIT/CISR survey of 329 matched with publicly available firm performance data. NSF grant number IIS-0085725.
What’s In the IT Portfolio?

**IT Portfolio**  Total IT dollars including all technology, services, digitized information, outsourcing and people dedicated to IT—broken into asset classes. Can view as flow (i.e., annual spend) or stock (i.e., accumulated spend).

**IT Programs**  Groupings of projects linked to business goals.

**New**

**IT Projects**  Set of activities creating outcomes to a budget and timetable.

**Sustaining**  Ongoing spending to keep current systems running.

**IT Functions**  Ongoing activities (e.g., operations, maintenance, planning, development, sourcing, security, and test).

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1Firms who spend more of their total IT spend on new initiatives (dashed box) had statistically significantly higher industry adjusted growth and margins – MIT CISR study, July 2008 (95 firms).

Source: MIT CISR study of 1508 firms in late 2007 (Weill & Woerner).
Firms Have an IT Portfolio with Four Asset Classes

**Transactional IT:** automates processes, cuts costs or increases the volume of business a firm can conduct per unit cost, e.g., order processing, bank cash withdrawal, billing, accounting and other repetitive transaction processing functions.

**Informational IT:** provides information for managing, accounting, reporting and communicating internally and with customers, suppliers and regulators, e.g., decision support, accounting, planning, control, sales analysis, customer relationship and Sarbanes-Oxley reporting systems.

**Strategic IT:** supports entry into a new market, development of new products or capabilities, and innovative implementations of IT. Example: ATMs.

**Infrastructure IT:** provides the foundation of shared IT services (both technical and human) used by multiple applications, e.g., servers, networks, laptops, shared customer databases, help desk, application development.

A project may be any combination of all four.

Rethinking IT as an Investment Portfolio
— Four Different Asset Classes

Infrastructure Has Multiple Layers
Where to locate infrastructure & systems capabilities?

- Order processing
- Customer portals
- Product configuration
- Knowledge management
- Vendors
- Telecommunications service providers
- Industry services
- Shared & standard applications
- Customer self serve
- PC/LAN service
- Electronic mail
- Large scale processing
- Shared customer database

Innovate and capture later in shared services

Consolidate and remove complexity

Shared / Centrally Coordinated

Business Unit 1

Business Unit 2

Firm-Wide Information Technology Infrastructure

Publicly Available Infrastructure (e.g., Internet, Telcos, Industry Nets)

### 2007 IT Portfolios in Different Industries

<table>
<thead>
<tr>
<th></th>
<th>Financial Services</th>
<th>Manufacturing</th>
<th>Consumer</th>
<th>Distribution &amp; Infra</th>
<th>Services</th>
<th>All For-Profits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2007 Total $IT as a Percent of Firm Revenues</strong> (Number of Firms)</td>
<td>5.5% (184)</td>
<td>5.1% (131)</td>
<td>4.2% (78)</td>
<td>7.8% (75)</td>
<td>6.4% (88)</td>
<td>5.8% (666)</td>
</tr>
<tr>
<td><strong>$IT 2007¹</strong></td>
<td>14%</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>28%</td>
<td>27%</td>
<td>27%</td>
<td>26%</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>45%</td>
<td>47%</td>
<td>47%</td>
<td>48%</td>
<td>47%</td>
<td>47%</td>
</tr>
<tr>
<td><strong>(Number of Firms)</strong></td>
<td>(327)</td>
<td>(245)</td>
<td>(163)</td>
<td>(136)</td>
<td>(166)</td>
<td>(1113)</td>
</tr>
<tr>
<td><strong>$IT 2006²</strong></td>
<td>18%</td>
<td>10%</td>
<td>17%</td>
<td>11%</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>25%</td>
<td>24%</td>
<td>27%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>46%</td>
<td>48%</td>
<td>42%</td>
<td>48%</td>
<td>46%</td>
<td>54%</td>
</tr>
<tr>
<td><strong>(Number of Firms)</strong></td>
<td>(87)</td>
<td>(167)</td>
<td>(157)</td>
<td>(91)</td>
<td>(101)</td>
<td>(625)</td>
</tr>
</tbody>
</table>

¹ MIT CISR 2007 survey of 1508 firms with Dr. Howard Rubin (Weill and Woerner). $IT=operating cost + depreciation. Firm-wide costs include all outsourcing and phone. Outliers greater than 4.7 standard deviations from the median were removed.

² MIT CISR/SeeIT 2006 survey of 625 firms. (NSF Grant Number IIS-0085725).


4 Banking, Financial Services, & Insurance.

5 Manufacturing, High Tech, Aerospace, Construction, Electronics, Chemicals, Energy, Mining, and Agriculture

6 Retail, Travel & Food, Consumer Services, Health Care, Pharmaceuticals, & Media

7 Telecom, Utilities, Transportation, and Logistics

8 IT & Software, IT Services, and Professional Services.

## 2007 IT Portfolios in Financial Services

<table>
<thead>
<tr>
<th>2007 Firm-wide $IT as a Percent of Revenues* (N=Number of Firms)</th>
<th>Banks</th>
<th>Financial Services</th>
<th>Insurance</th>
<th>Combined</th>
<th>All For-Profits</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.8% (52)</td>
<td>8.8% (52)</td>
<td>3.9% (80)</td>
<td>5.5% (184)</td>
<td>5.8% (606)</td>
<td></td>
</tr>
<tr>
<td>IT Investment 2007†</td>
<td>14%</td>
<td>13%</td>
<td>14%</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>27%</td>
<td>26%</td>
<td>28%</td>
<td>28%</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>46%</td>
<td>47%</td>
<td>44%</td>
<td>45%</td>
<td>47%</td>
<td></td>
</tr>
<tr>
<td>(N)</td>
<td>(82)</td>
<td>(117)</td>
<td>(128)</td>
<td>(327)</td>
<td>(1113)</td>
</tr>
<tr>
<td>Percent of 2007 $IT Run Current Systems (N)</td>
<td>64% (41)</td>
<td>67% (53)</td>
<td>67% (54)</td>
<td>66% (148)</td>
<td>66% (488)</td>
</tr>
<tr>
<td>Percent of 2007 $IT Centralized (N)</td>
<td>71% (87)</td>
<td>72% (130)</td>
<td>73% (140)</td>
<td>72% (357)</td>
<td>72% (1217)</td>
</tr>
<tr>
<td>Percent 2007 $IT Charged Back (N)</td>
<td>52% (67)</td>
<td>53% (130)</td>
<td>52% (140)</td>
<td>52% (357)</td>
<td>53% (1217)</td>
</tr>
<tr>
<td>Percent of 2007 $IT Shared Services (N)</td>
<td>10% (66)</td>
<td>9% (94)</td>
<td>9% (93)</td>
<td>9% (250)</td>
<td>9% (814)</td>
</tr>
<tr>
<td>Percent of 2007 $IT Outsourced (N)</td>
<td>23% (21)</td>
<td>25% (34)</td>
<td>26% (32)</td>
<td>25% (87)</td>
<td>25% (282)</td>
</tr>
<tr>
<td>Percent of 2007 $IT Employee Training (N)‡</td>
<td>10% (12)</td>
<td>4% (11)</td>
<td>4% (14)</td>
<td>6% (37)</td>
<td>6% (117)</td>
</tr>
</tbody>
</table>

1 MIT CISR 2007 survey of 1508 firms with Dr. Howard Rubin (Weill and Woerner). $IT=operating cost + depreciation. Firm-wide costs include all outsourcing and phone. Outliers greater than 4.7 standard deviations from the median have been removed.

2 Suggestive result only, due to small sample sizes.
## 2007 IT Portfolios in Not-for-Profits

<table>
<thead>
<tr>
<th>IT Investment 2007¹</th>
<th>Non-Profits</th>
<th>Education</th>
<th>Government</th>
<th>All Not-for-Profits</th>
<th>All For-Profits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007 Firm-wide $IT as a Percent of Expenses¹ (N=Number of Firms)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.6% (5)</td>
<td>8.3% (32)</td>
<td>3.2% (48)</td>
<td>5.1% (65)</td>
<td>4.9% (360)</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>13%</td>
<td>13%</td>
<td>12%</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>Strategic</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Transactional</td>
<td>25%</td>
<td>27%</td>
<td>26%</td>
<td>48%</td>
<td>27%</td>
</tr>
<tr>
<td>Information</td>
<td>49%</td>
<td>49%</td>
<td>48%</td>
<td>48%</td>
<td>47%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percent of 2007 SIT Run Current Systems (N)</th>
<th>Non-Profits</th>
<th>Education</th>
<th>Government</th>
<th>All Not-for-Profits</th>
<th>All For-Profits</th>
</tr>
</thead>
<tbody>
<tr>
<td>65% (10)</td>
<td>65% (58)</td>
<td>65% (100)</td>
<td>65% (100)</td>
<td>65% (100)</td>
<td></td>
</tr>
<tr>
<td>Percent of 2007 SIT Centralized (N)</td>
<td>68% (23)</td>
<td>73% (76)</td>
<td>73% (182)</td>
<td>72% (281)</td>
<td></td>
</tr>
<tr>
<td>Percent of 2007 SIT Charged Back (N)</td>
<td>54% (23)</td>
<td>55% (76)</td>
<td>57% (182)</td>
<td>57% (291)</td>
<td></td>
</tr>
<tr>
<td>Percent of 2007 SIT Shared Services (N)</td>
<td>9% (12)</td>
<td>10% (45)</td>
<td>9% (129)</td>
<td>9% (193)</td>
<td></td>
</tr>
<tr>
<td>Percent of 2007 SIT Outsourced (N)</td>
<td>30% (5)</td>
<td>25% (22)</td>
<td>20% (41)</td>
<td>22% (68)</td>
<td></td>
</tr>
<tr>
<td>Percent of 2007 SIT Employee Training (N)²</td>
<td>2% (3)</td>
<td>4% (11)</td>
<td>4% (18)</td>
<td>4% (32)</td>
<td>6% (117)</td>
</tr>
</tbody>
</table>

¹ MIT CISR 2007 survey of 1508 firms with Dr. Howard Rubin (Weill and Woerner). $IT=operating cost + depreciation. Firm-wide costs include all outsourcing and phone. Outliers greater than 4.7 standard deviations from the median have been removed.
² Suggestive result only, due to small sample sizes.
### IT Portfolio Alignment with Strategy by Top Performers

#### Business Strategy and Top Performance

<table>
<thead>
<tr>
<th>IT Portfolio Mix of Investments</th>
<th>Average Firm (n=337)</th>
<th>Cost (n=22)</th>
<th>Balance Cost &amp; Agility (n=50)</th>
<th>Agile (n=22)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$IT compared to industry avg. as % of expenses</td>
<td>18% 11% 25% 46%</td>
<td>15% more than industry average</td>
<td>Industry average</td>
<td>3% less than industry average</td>
</tr>
<tr>
<td>1All 337 US stock exchange listed firms in the sample of 640</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2Cost Focus: top 50% on ROIC and bottom 25% on percent of sales from modified product.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3Balanced: middle 50% on percent of sales from modified products and top 50% on ROIC.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4Agile: top 50% on revenue growth and top 25% on percent sales from modified products.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tracking the Impact of Information Technology Investments

Impact Sought
- Revenue growth
- Return on assets
- Revenue per employee
- Time to bring new product to market
- Sales from new products
- Product or service quality
- Time to implement a new application
- Cost to implement a new application
- Infrastructure availability
- Cost per transaction
- Cost per workstation

Sample Value Measures
- BUSINESS UNIT FINANCIAL PERFORMANCE
  - Revenue growth
  - Return on assets
  - Revenue per employee
- BUSINESS UNIT OPERATIONAL PERFORMANCE
  - Time to bring new product to market
  - Sales from new products
  - Product or service quality
- IT APPLICATIONS BUSINESS VALUE
  - Time to implement a new application
  - Cost to implement a new application
- IT INFRASTRUCTURE BUSINESS VALUE
  - Infrastructure availability
  - Cost per transaction
  - Cost per workstation

Dilution of IT Impacts
- Information Technology $ (A)
- Time (C)

Responsibilities
- Business Management
  - Dilution of Impact

The Four IT Asset Classes Have Different Risk Return Profiles

- **INFORMATIONAL**
  - Increased control
  - Better information
  - Better integration
  - Improved quality
  - 13%

- **STRATEGIC**
  - Increased sales
  - Competitive advantage
  - Competitive necessity
  - Market positioning
  - 13%

- **TRANSACTIONAL**
  - Cut costs
  - Increase throughput
  - Lower cost
  - 25–40% return
  - 27%

- **INFRASTRUCTURE**
  - Business integration
  - Business flexibility
  - Reduced marginal cost of BU’s IT
  - 47%

- **INFORMATIONAL**
  - Higher market valuation
  - Less then more sales from innovation
  - Smaller short run margins and lower ROA

- **STRATEGIC**
  - 50% fail
  - Some spectacular successes
  - 2–3 year lead
  - Premium pricing
  - More sales from customized products

## IT Savvy Impacts Firm Performance

### Lower Cost of Goods Sold

<table>
<thead>
<tr>
<th>IT Investment</th>
<th>Firms</th>
<th>High Savvy</th>
<th>Low Savvy</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Infrastructure</td>
<td>Ave.</td>
<td>+5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transactional IT</td>
<td>Ave.</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Informational IT</td>
<td>Ave.</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Strategic IT</td>
<td>Ave.</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Profit

<table>
<thead>
<tr>
<th>IT Investment</th>
<th>Firms</th>
<th>High Savvy</th>
<th>Low Savvy</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Infrastructure</td>
<td>Ave.</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transactional IT</td>
<td>Ave.</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Informational IT</td>
<td>Ave.</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Strategic IT</td>
<td>Ave.</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Agility/Innovation

<table>
<thead>
<tr>
<th>IT Investment</th>
<th>Firms</th>
<th>High Savvy</th>
<th>Low Savvy</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Infrastructure</td>
<td>Ave.</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transactional IT</td>
<td>Ave.</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Informational IT</td>
<td>Ave.</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Strategic IT</td>
<td>Ave.</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Market Value

<table>
<thead>
<tr>
<th>IT Investment</th>
<th>Firms</th>
<th>High Savvy</th>
<th>Low Savvy</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Infrastructure</td>
<td>Ave.</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Transactional IT</td>
<td>Ave.</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Informational IT</td>
<td>Ave.</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Strategic IT</td>
<td>Ave.</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

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1. Next year’s Net Margin
2. Next year’s sales from New and Modified Products/Total Sales.
3. Market to Book value in same year as investment.
4. Ave. = Average return for all firms, High (Low) Savvy = additional positive (negative) return for firms in the top (bottom) 5% of IT Savvy.
5. +(-) = "High Impact" 50% or less of the highest positive (negative) incremental impact for that variable. +(+(-) = "Very High Impact" Greater than 50% of the highest positive (negative) incremental impact for that variable. All impacts are statistically significant controlling for firm and industry effects from 147 firms.

IT Savvy—How Some Firms Get 40% More Value

These firms have:

- More top management commitment
- More integrated business and IT planning
- Less political turbulence
- Higher user satisfaction (e.g., IT Portfolio Health)
- More management experience with IT (e.g., reengineering)

And thus above industry average IT Savvy*

*IT Savvy = enterprise’s ability to gain above industry average returns from IT by better management.

Firms with above average IT Savvy and IT spending also had 21% higher margins
- average margin 6.1%

<table>
<thead>
<tr>
<th>IT Savvy 2005</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+0.8</td>
<td>-2.0</td>
</tr>
<tr>
<td></td>
<td>(n=80)</td>
<td>(n=84)</td>
</tr>
<tr>
<td></td>
<td>+1.3¹</td>
<td>-0.1</td>
</tr>
<tr>
<td></td>
<td>(n=85)</td>
<td>(n=80)</td>
</tr>
</tbody>
</table>

² IT Savvy is a score from -40 to +40, calculated from 24 questions assessing five important characteristics. The five characteristics are Top Management and IT, IT and Business Planning, Organizational Politics & Political Turbulence, User Satisfaction with IT, and IT Practices in Your Business. Split into high and low at median.
³ IT as % of total company 2004 expenses – includes operating expenses plus depreciated capital. Split into high and low at the median.


NSF grant number IIS-0085725.
1. Top Management Commitment to Information Technology

Senior Managers:
- Attend IT council meetings themselves and don't send a nominee.
- Help define the necessary capabilities of the digitized platform (e.g., business processes, data, and technology).
- Require carefully considered business cases for investments with measures and responsibilities identified.
- Support the strategic uses of IT by providing seed funding, not requiring traditional net present value financial justifications, and stopping poor performing projects early.
- Encourage post implementation reviews which are not witch-hunts and facilitate the gathering and dissemination of the lessons learned.
- Encourage, fund and actively support training in the use of IT.
2. Integrating Information Technology with Business Planning

In your firm there are/is:

- Executive management considerations of information and IT implications in business strategy discussions.
- Regular high level briefings on the implication of IT developments in your industry.
- Accountabilities for achieving strategies which were clear and documented.
- Articulation of the respective roles and responsibilities of business and IT management in achieving effective and efficient systems and delivering business benefits. Managers are named and held accountable.
3. Organizational Politics & Political Turbulence

Your firm:

- Exhibits a strong sense of community, a feeling of shared interests and purpose and cooperation amongst managers. This is reinforced with reward systems and incentives that are based on a good balance of firm-wide and local measures.
- Captures relevant data in one business area and willingly shares it across the firm. Cross functional and business opportunities are actively sought to innovate, improve service, and reduce costs.
- Encourages cooperation via cross functional teams, secondments and movement of personnel.
4. Empowered and Satisfied Users

There is:

- A feeling of empowerment for all people in the firm resulting from immediate access to data and systems that help with their job.
- Confidence in the reliability of systems and the completeness of information.
- A sense of relevance and accuracy of the information in the systems.
- Excellent support provided to those using the systems. Help desks are very effective and assistance from technical personnel is excellent.
- Excellent user understanding resulting from easy to use systems and good training.
- The attitude and responsiveness of those who provide support for systems is enthusiastic and professional.
5. Learning From Experience

Your firm always:

- Redesigns, simplifies or reengineers business processes before any money is spent on information systems.
- Maximises the reuse of business process and information systems components.
- Ensures that every new IT project that is not infrastructure has a business person as champion with clearly identified deliverables and responsibilities of the business and IT people.
- Ensures that infrastructure investments are treated separately from investments in applications to take account of their shared nature and long life.
- Encourages innovative use of IT in the business units even if firm-wide standards are not always followed. Integration can be achieved later if successful.
### IT Savvy—Why Some Firms Achieve More Business Value

<table>
<thead>
<tr>
<th>IT Savvy</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>-1</td>
<td>-20</td>
</tr>
<tr>
<td>-21</td>
<td>-40</td>
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</table>
Risk-Return Profiles in the IT Portfolio

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IT Portfolio Management Maturity Model (Jeffery & Leliveld)

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Adopting IT Portfolio Management

1. Assess your IT governance effectiveness – *How urgent is the case for action?*

2. Assess your IT Portfolio maturity stage (1, 2 or 3?).

3. Identify current IT Portfolio. Questionnaire and benchmarks available from MIT CISR.

4. Understand IT asset class performance and benchmarks (for your business by post implementation reviews).

5. Assess, track and compare your firm’s “IT Savvy” by business unit.

6. Balance the Portfolio for alignment and risk / return profile.

7. Re-weight Portfolio annually and when major changes occur.
## FinCo’s Four Years of IT Portfolio

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>IT as a percent of</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Expenses</td>
<td>13.1</td>
<td>13.8</td>
<td>11.5</td>
<td>12.9</td>
<td>10.4</td>
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<tr>
<td>(average = 12.8)</td>
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<td></td>
</tr>
<tr>
<td><strong>FinCo (firm-wide)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>15%</td>
<td>16%</td>
<td>17%</td>
<td>17%</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>9%</td>
<td>17%</td>
<td>29%</td>
<td>22%</td>
<td>18%</td>
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</tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Percent Outsourced</strong></td>
<td>24</td>
<td>21</td>
<td>18</td>
<td>21</td>
<td>15</td>
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</table>

### Information

- Strategic
- Transactional
- Infrastructure
## 2006 IT Savvy at FinCo

<table>
<thead>
<tr>
<th></th>
<th>All Leaders</th>
<th>Business Leaders</th>
<th>IT Leaders</th>
<th>All n=88</th>
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<tbody>
<tr>
<td><strong>Overall IT Premium</strong></td>
<td>7.6</td>
<td>5</td>
<td>9</td>
<td>-4</td>
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<tr>
<td>(-40% to +40%)</td>
<td>n=88</td>
<td>Average n=52</td>
<td>Average n=36</td>
<td>Bottom Third n=29</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>17</td>
<td>17</td>
<td>24</td>
</tr>
<tr>
<td>1. Top Management and Information Technology</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
<td>-0.1</td>
</tr>
<tr>
<td></td>
<td>3.0</td>
<td>4.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Information Technology and Business Planning</td>
<td>3.3</td>
<td>3.6</td>
<td>3.0</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>3.7</td>
<td>6.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Organizational Politics and Political Turbulence</td>
<td>1.4</td>
<td>1.1</td>
<td>1.9</td>
<td>-2.3</td>
</tr>
<tr>
<td></td>
<td>1.8</td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. User Satisfaction with Information Technology</td>
<td>-0.2</td>
<td>-1.5</td>
<td>0.3</td>
<td>-3.8</td>
</tr>
<tr>
<td></td>
<td>0.3</td>
<td>3.0</td>
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</tr>
<tr>
<td>5. IT Practices in your firm</td>
<td>-0.4</td>
<td>-1.1</td>
<td>1.0</td>
<td>-2.1</td>
</tr>
<tr>
<td></td>
<td>0.5</td>
<td>2.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. IT Savvy has an industry average of zero and ranges from + 40% to – 40% on a bell shaped curve.