Technology planning: how to uncover opportunities

Prepared by:

Dean Lemons, Principal, RSM US LLP
dean.lemons@rsmus.com, +1 563 888 4106

Studies show that most organizations have considerably more IT needs than dollars budgeted to support their initiatives — regardless of a robust or slowed economy. On average, IT budgets constitute roughly 25 percent of the immediate technology needs as defined by the company overall. As a result, effective prioritization relative to overall business needs is imperative. Choices should be made based on sound, logical analysis based on business needs and objectives.

Most organizations have adopted a cost–justification process. Sometimes, however, cost becomes the focal point to the exclusion of justifying the "right technology." Therefore, the technology solution that is chosen to fit a short–term need must be replaced well before it reaches the end of its functional life expectancy. This is often due to incompatibilities with other technologies that are implemented to a later time. In many cases, proper analysis and planning could have resulted in a more stategic decision that would have supported long–term compatibility, ultimately reducing total cost of ownership (TCO).

Technology investment analysis

A technology investment analysis ensures that the real cost of your investments are considered and expected benefits are fully achieved. Each step in the analysis is based on the fundamentals for maximizing your IT budget — and boosting your return on investment (ROI). This formal process, listed below, helps to ensure that your IT investments are strategic and are supporting your organization's business plan:

- Involve key stakeholders
- Understand your current IT environment
- Anticipate your business needs
- Evaluate alternative technologies
- Calculate TCO

THE POWER OF BEING UNDERSTOOD
AUDIT | TAX | CONSULTING

RSM

Involve key stakeholders

In order to fully understand whether your IT investments are properly focused, you must have clear insight into whether or not they are aligned with your people, processes and business objectives.

Prior to implementing a new system, you should consult with your key stakeholders (managers, process owners, visionaries). One of the best methods is to conduct a strengths, weaknesses, opportunities and threats (SWOT) analysis discussion that focuses on both technology and non–technology related topics. In many organizations, the resulting feedback serves as a solid indicator of future technology requirements.

In addition to conducting a SWOT analysis with key stakeholders, it is critical to perform anonymous, technology focused surveys with all employees. The survey results will provide a real understanding of how your organization's end users leverage technology to do their job.

Understand your current IT environment

When management steps back to review operational processes and related technology needs, they often discover a myriad of complex systems. Each department and/or division has its own processes, languages, forms and requirements.

A key step in performing a technology investment analysis is to be certain you understand your existing IT environment. This is more than "taking inventory." Key areas to examine include:

- Existing technology — A thorough examination of your organization's existing technology will help you determine which systems are essential and how these systems align with your people, processes and business needs.
- Availability and usability — Technology is the backbone of most businesses, which means that all systems and applications must be available to users at all times. Performance, planned and unplanned downtime, and insufficient remote accessibility are areas that can negatively impact employee productivity.
- IT support — It is important to assess your current IT staff. Does the team have the right mix of skills? Do they have the tools necessary to fulfill your expectations?

Anticipate business needs

Agile and forward–thinking organizations are able to overcome difficult challenges. While your industry may be faced with a less–than–optimistic future, recessions do not last forever. It may be tempting to focus on immediate needs as opposed to developing a strategic IT plan. However, based on the evolving nature of technology and the economy, focusing solely on immediate needs will not properly align IT initiatives with long–term business objectives.

Start by discussing your organization's strategic imperatives. Ask:

- What will our customers want one, two and three years from now?
- What is the competition doing or planning?
- What really comprises our costs?
- What is preventing more revenue growth?
- What potential new revenue sources exist?
- What are our operational efficiency improvement opportunities?
- What, if any, are likely changes to our facilities?
- What compliance requirements do we foresee having to fulfill?
- What new cultural dynamics (both internal and external) can we forecast?

The answers to these and other similar questions will serve as a starting point for anticipating general business requirements and opportunities.

Evaluate alternative technologies

Once you have assessed the standard infrastructure and systems that will be impacted as a result of fulfilling your anticipated business needs, the next step is to identify the specific technologies to be leveraged. It is important to note that these technologies may not result in a direct investment for one, two or even three years. However, foreseeing the need can dramatically improve TCO, allowing interim IT investments to be made with knowledge of these impending solutions.

Below are some key emerging technologies that you should consider in your strategic plan:

- **Wireless communications**
  Long–haul, point–to–point wireless technologies have matured to the point where broad acceptance is taking place in most industries. Every situation is different, but it is worth exploring. A wireless network can potentially provide more affordable and higher speed communications versus traditional leased lines. Advancements in security provisions, the ability to span longer distances, and the impressive weather invulnerability have even led to considerable adoption within the financial institutions industry. A wireless feasibility study may lead your organization to implement this technology for a number of reasons, including reductions in communications cost; larger and faster communication pathways; and redundancy in communications to reduce downtime risks.

- **Server virtualization and storage area networking (SAN)**
  Server virtualization in the microprocessor world enables small–to medium–sized organizations to reduce the number of physical servers — dramatically improving hardware investment and replacement costs as well as reducing the amount of time your IT team needs to dedicate to ongoing support. When combined with a SAN, it also provides highly efficient and effective shared storage solutions, offsite data and systems replication for disaster recovery, real–time failover for high–availability, enterprise backup–to–disk and rapid recovery.
- **Thin–client technologies**
  Thin client technologies, such as terminal services, Citrix and/or desktop virtualization, have brought technology full circle. Once again, technology is centralized, and it is also providing the full benefits of a Microsoft Windows experience to the end user. The hard and soft cost and efficiency savings have proven substantial given the ability to practically eliminate the need to "touch" personal computers. Application updates now consist of a single, central update for all users. Other benefits include increased PC life cycles and improved performance, especially in the cases of wide area network communications and older PCs.
- **Convergence — IP telephony, voice over IP (VoIP) and unified communications**
  The world is evolving from proprietary telephony hardware solutions to that of standards–based software through convergence, which, in its simplest sense, collapses the former distinct voice and data networks into a single network. The outcome is "voice as an application" on computer networks. IP telephony, voice over IP (VoIP) and unified communications are changing the ways in which voice is transferred to end–users and their options for access. Not only do these technologies enable cost savings due to network infrastructure component sharing, but also due to flexibility associated with inbound and outbound calling, expanded features and functionality, easier administration with less reliance on outside vendors and remarkable voice clarity. Additionally, it enables integration and incorporation of solutions such as desktop faxing, voicemail, email, calendaring, Internet, mobile devices, audio and video conferencing.

Calculate total cost of ownership

When technology initiatives do not align with business needs, the TCO soars. TCO consists of the costs incurred throughout the lifecycle of an asset, including acquisition, deployment, operation, support and retirement. High costs are usually due to the difficult and generally overlooked task of "looking at the big picture impact that is associated with every technology component purchased." Only after you've identified the right technologies can the results of your ROI and/or TCO analysis be truly relevant.

- Does the technology manufacturer possess both the vision and ability to execute long term?
- Is there broad market availability of technical support skills?
- Does the technology meet the immediate, secondary and anticipated needs of the business?
- Will it integrate with existing, planned and anticipated technologies?

These and other questions, if left unanswered, often result in significantly shorter–lived technologies. Yet, diminished viability is only one of many commonly affiliated and costly problems that can be associated with making short–sighted purchases.

Conclusion

Information technology has been, and continues to be, an integral and defining factor in the day–to–day operations of most successful organizations. It is critical to maintain your focus on the role technology plays in your organization's overall success. Too often, the value that technology can provide to an organization goes unrecognized until the operation suffers a loss. The opportunity for IT to enable growth is stronger than ever.