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Tying IT to the Business:

Using BTM (Business Technology Management)

to Appropriately Manage IT Outsourcing

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Abstract

Outsourcing information systems and technology is a business decision that is best planned, executed, and managed using Business Technology Management (BTM). Some or all information operations should be outsourced if (and only if) the organization has properly analyzed the effects of outsourcing upon the business, and is prepared to undertake their management. BTM is a management methodology that strives to align technology with the rest of management by highlighting communication, collaboration, and evaluation between business and technology managers. The methods and tools of Business Technology Management provide benefits for the entire outsourcing process.

Executive Summary

Senior managers of all types of organizations select external vendors to offer a variety of professional information technology services. These relationships require effective cross-functional management. One management philosophy known as Business Technology Management (BTM) strives to align technology with the rest of management. Managing an outsourcing relationship with BTM exploits the synergy created through the combination of the most successful business and technology management principles.

This paper describes the incentives for outsourcing IT and lists technology functions that organizations could outsource. I then provide an overview of BTM and explain its usage of communication, collaboration, and evaluation between business and technology areas. Finally, I propose combining the advantages of outsourcing with those of BTM. I show how this guarantees quality, replaces current costs, and benefits internal business and technology areas as well as the vendor.

Research for this paper included analysis of academic, commercial, and industrial white paper sources found on the Internet. During the course of my research, I found no explicit examples of a BTM/ outsourcing arrangement. Nevertheless, I believe that these practices combined will become more popular and popularly discussed in the near future.

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Introduction

With all the software applications, business information systems, systems interfaces, and information hardware available, how can IT professionals sift through it all to find the right match their requirements? To keep on top of new technology, managers turn to vendors that offer a variety of professional technology services, including consulting, training, logistics, configuration, management, and site surveying (Harms, 2002).

There are many times when an organization finds technology management overwhelming. Too often, because of budget constraints, internal staff is expected to research, manage, configure, and install a new system while still handling daily responsibilities. Relying on current employees who don't have the proper skills or enough time can increase the risk that the project will take longer and not meet the quality standards expected (Harms, 2002).

Based on a study done by Wipro Limited on Total Cost of Management (TCM), it has been found that many organizations can get a cost benefit by outsourcing their IT infrastructure management (*Outsourcing: Total Cost,* 2002).

When should an area be outsourced? How should the outsourcing be carried out and managed? Adherence to the principles of Business Technology Management (BTM) makes these questions easier to answer. BTM exploits the synergy created through the combination of the most successful

business and technology principles. Interestingly, the evolution of Carnegie Mellon Software Engineering Institute (SEI)'s Compatibility Maturity Model (CMM) mirrors this phenomenon. The Institute originally created CMM as a quality measurement system to assess software development processes. Since its creation, the CMM has been adapted to assess processes within systems engineering, integrated product and process development, supplier sourcing, and personnel (*Management,* 2002). Their measurements of technology process quality have been adapted to measure business quality.

Implementing these practices represents a business investment that incurs immediate tangible costs and reaps near- and far-term tangible benefits. They would add value to the IT management within any organization, regardless of size or industry, and is not tied to specific technology.

Outsourcing IT

One definition of outsourcing is "the strategic use of outside resources to perform activities traditionally handled by internal staff and resources" (Griffiths, n.d.). An increasing number of companies turn to vendors that offer a variety of professional technology services. Gartner projects that nearly half of Fortune 1000 global enterprises will choose not to own their IT assets, but instead will derive business benefits from shared IT utility infrastructures owned and operated by service provider hybrids (Beck,

2002). Why are companies interested in IT outsourcing, and how can they make it work for their benefit?

Reasons to Outsource

Several reasons feed such a strategy. Many times, the function under consideration is time-consuming to manage or is out of control. Perhaps the organization has insufficient resources to properly do the job internally. A world of vendors specializes in providing world-class service for their customers. After outsourcing non-essential areas, a company can focus on its core functions. Outsourcing almost always reduces operating costs and makes these costs more controllable. This frees internal resources for more essential tasks. Sharing risks with a partner company is an added benefit of outsourcing (Griffiths, n.d.).

Areas to Outsource

Wipro is the first IT services company to achieve Level 5 certification within the SEI's Capability Maturity Model. Leveraging their own internal level of quality management, they have positioned themselves as an authority in managing IT services. They determine the suitability of outsourcing functions based on a few criteria. According to their criteria, the function in question must not require a complex internal business understanding or contain underdeveloped processes connecting it to the rest of the business. A

business area becomes a candidate for suitability if it requires little interaction with customers or third parties. When that same area requires a low level of continual interaction with management, then the area is highly suitable for outsourcing.

Any aspect of IT can be outsourced, including applications, infrastructure, and services (including management). A company can benefit from outsourcing application development in full, or engage in development as a collaborative effort. Providers of JAD (joint application development) management work together with internal workers to make the product together. They offer similar documentation to that of the standard development process, but deliver more quickly and with more communication both inside and outside the team (Rist, 2001). The JAD vendor can additionally offer to implement the package and maintain the application. In addition to application developers, other management vendors control and develop infrastructure requirements. Still others provide IT strategy consulting, systems integration, and business processes such as technical help desks, customer service, telemarketing, collection calls, customer relationship management, and accounting.

Business Technology Management

Benefits: Cooperation of Business and Technology

A major hindrance in many management environments is the isolation of technology managers from the rest of organizational management. IT managers often find themselves institutionally separated from the rest of an organization's management and excluded from key activities such as strategy formulation. One management methodology known as Business Technology Management (BTM) strives to align technology with the rest of management. "BTM is a proven and unified approach that enables companies to effectively and continuously align business and technology for improved business performance," writes Faisal Hoque, founder of enamics, Inc. (2001). Enamics produces software that is meant to assist the integration. Though the software promotes dialogue between strategists and technologists, an organization can foster collaboration simply by instituting a few essential cooperative practices.

Methods and Tools

The BTM methodology addresses the problem by outlining core management issues that need to be resolved at a senior level to ensure success (Rist, 2001). The goal is alignment of business models and processes with technology.

Successful business professionals consider all the elements of their business model and how technology is best applied to each aspect of the business. Using BTM, technologists understand what the business objectives are and how to ask the right questions of leadership in order to empower the enterprise with the right solutions (Hoque, 2001).

The seven key methods below are adapted from "Aligning Business and Technology", a white paper published by enamics. The white paper begins by outlining core BTM principles. Then it explains why corporations must adopt an iterative and collaborative standard, and illustrates how this standard helps enterprises consistently align business and technology. These methods fall into three areas that help to foster a BTM environment within any organization: communicate, collaborate, and evaluate.

COMMUNICATE: Give decision makers the right information at the right time to draw the right conclusions.

A knowledge management (KM) system is meant to fulfill this requirement, but most KM systems fall far short of delivering it. Two factors greatly improve the usefulness of a KM system in supporting decision-making. First, aspects of the knowledge relating to strategy and operational choices must be identified, codified (such as with meta-data), and embedded within the context of a scenario-planning environment. Once the organization activates the environment, the relevant content within the KM system must be

actively pushed to reach decision makers. This is in contrast to the requirement of having employees passively query the system. A "proactive" stance of the KM system gets useful information to the user when the context arises.

COLLABORATE (1): Develop and enact strategy through the cooperation of business and technology management.

Strategic planning is a traditional function for business areas, but it has traditionally excluded the IT department. Those responsible for implementing technology may not have been a partner in the creation of the strategies the technology was meant to fulfill. Conversely, technologists have sometimes been autonomous and have made investments without relation to the overall business strategy. The solution brings together business and technology leaders to carry out strategic management together: defining the business objectives, monitoring progress, and maintaining alignment between planning and implementation.

COLLABORATE (2): Unify business and technology decision-making.

This goes hand-in-hand with the cooperative strategy development environment. Project and program management should also exist in an environment that promotes collaboration and integration. Assessments, decisions, and operations have the lowest risk when conducted with consensus among business and IT leaders. This ensures the application of

best practices from both business and technology within both areas. IT communication relating to decision-making, including feedback loops, should often include the business leadership to keep objectives aligned.

COLLABORATE (3): Collaborate horizontally and vertically to leverage distributed expertise.

Such collaboration would occur between employees at different management levels or within different departments. Initially, it requires human contact between employees with potentially conflicting cultures. Eventually, as the process becomes automated, the cultural barriers disappear. Automation comes from the addition of expertise knowledge into the KM system. The collaboration evolves, and the resulting experience is an employee accessing process information and lessons learned found within the KM system.

EVALUATE (1): Model and test the effectiveness of new systems within the context of their real-world scenario to promote strategy-driven innovation instead of reactionary management.

Evaluating the effects of a new live system might be too late—it may have already caused irrevocable damage to the business. The results of a live IT solution do not provide the first opportunity for evaluation. Predictive modeling of a solution provides a preview of its impact. The most accurate modeling tests not only the technology, but the business scenario in which it will function as well. Stakeholders can execute what-if scenarios and

measure financial and operational risks. They can then analyze the test results and provide feedback before carrying out the initiative.

EVALUATE (2): Create reusable business processes and technology tools.

This echoes the principles of quality management found within ISO 9000 philosophy, as well as Carnegie Mellon Software Engineering Institute's Capability Maturity Model. Reusability promotes efficiency and predictability across multiple lines of business, initiatives, and iterations. However, adaptability must not be forgotten: though these tools should be designed for re-use, they should be continually reassessed and improved where possible.

EVALUATE (3): Enable performance management through continuous measurement and evaluation.

This provides more metrics to evaluate the effectiveness of each employee's version of strategy implementation. The evaluation criteria must be developed internally to be relevant, but must be standardized across the entire organization to measure and promote organizational behavior that feeds the objectives.

The Synergy: Managing Outsourcing with BTM

Managing Vendor Choice

Outsourcing can encompass a wide range of responsibilities, from a particular project to all activities within a technical domain. Each situation requires a different understanding of the priorities, measures, costs, and the benefits involved. Outsourcing decisions should be based on a solid business case analysis of alternatives. Senior executive support and involvement are critical to the authority of the decision, as well as to the development of a long-term relationship with the partner. Senior managers who perceive potential value and competitive advantage in their partnership with the vendor are more willing to take ownership of the outsourcing relationship. They are also more likely to pledge the necessary resources to identify opportunities for enhancing the relationship (*Outsourcing: A Decision*, 2002).

When management commits to outsourcing a function, the business must identify a short list of vendors who would potentially fulfill the requirement. The company then composes a detailed request for proposal (RFP) and sends it to these candidates. Selecting from a minimum of two vendors allows for comparison of offerings, and six or less vendors keeps the internal administration manageable. The RFP spells out exactly the cost and service expectations, and often the desired fate of internal staff as well.

When formal proposals come back, a capable internal team must evaluate all candidate vendors. The evaluation team members should be knowledgeable in current operations (and not be exclusively technologists). Each member should be a respected leader who is accountable for the success of the decision. The team must be knowledgeable contributors who can separate business from personal perspectives to analyze and evaluate proposals. Following their selection process, the team should remain intact as a steering group to manage the selected vendor's role (Krahl, 2001).

Managers will need to meet with the vendor personnel assigned to the account. The winning vendor will have to meet and adhere to specific customer requirements. The customer must be comfortable with the vendor's capabilities, culture, and cost (Field, 1997). The selection of an outsourcing partner requires an alignment of the customer's and vendor's core values and behaviors (*Outsourcing: Total Cost,* 2002). The vendor must understand the customer's overall organizational goals and objectives. The partnership should include its own vision and plan that is in harmony with those of the two organizations. Effective vendors maintain open communication with affected internal individuals and groups. They pay careful attention to personnel issues (Griffiths, n.d.).

Measuring Quality

The best outsourcing arrangements are founded upon properly structured contracts. The basis of the contract is a Service Level Agreement (SLA) that defines the vendor's role and level of involvement and quality. A carefully written SLA defines the technical solutions and the business responsibilities. "You want a service-level agreement that protects your business, not just your computing infrastructure," says Warren Wilson, an analyst with Summit Strategies in Boston. "It has to be written in business terms," emphasized Wilson (Kalin, 2000).

Contract management requires the ongoing participation of in-house resources to manage the contract. Throughout the relationship, communication and documentation are essential. The relationship requires a formal process to escalate major issues internally. An auditing infrastructure ideally includes an ongoing review and process performance reviews carried out by the steering group. The group handles project requirements management and develops, if called for, an exit strategy (*Outsourcing: A Decision*, 2002).

Replacing Costs

Spending on IT outsourcing globally reached $56 billion in 2000 (Beck, 2002). The cost of outsourcing is meant to replace direct (or "visible") and

indirect (“invisible”) in-house IT expenditures. Directly visible costs include technical operations and equipment costs, support staff and tools, research and development, and costs of administration and management.

Simple methods to avoid visible costs would include avoiding the recruitment of additional staff to support an application that is already in production, and avoiding significant investments in newer technology. Outsourcing has enabled cost savings while sustaining engineering projects, but application development and system integration projects tend to rely heavily on the need of expertise and resources and can be just as expensive, if not more, than the use of internal resources (*Outsourcing: A Decision*, 2002).

Other costs of technology are invisible, in that they are not evident within budgets as directly relating to the areas they influence. Nevertheless, these costs are significant to the organization as a whole. Some hidden costs derive from staffing problems. The recruitment of technical staff becomes expensive when staff rotation is high due to poaching, evolving skills requirements, or employee disillusionment. Additional invisible costs come about through revenue loss to the organization and productivity loss of all affected employees due to a technology problem. The problem may stem from either a system failure, reduced functionality of a poorly configured or managed system, or the absence of the most beneficial technology (*Outsourcing: Total Cost*, 2002).

Invisible costs complicate staff manageability and influence morale. The supply or value chain also suffers. Security concerns arise from staff rotation and system failures. These problems negatively influence strategy planning and project progress, and increase risks to business operations and relationships (*Outsourcing: A Decision*, 2002).

Realizing Benefits

The vision of outsourcing with BTM is an environment where IT vendors and business strategy executives speak a common language and strive for common goals. Their cooperation is continuous, rather than connected by periodic meetings. Real business needs become the decisive basis for technology spending, rather IT management's interpretations of incumbent strategy. Vendors' competing proposals multiply the sensibility of these decisions.

Outsourced technological tools can improve all areas of management. Using external technology gives internal non-technical areas a competitive advantage (Rist, 2001). Best-of-breed technology and technology processes reduce delivery and cycle times, manage costs, increase product quality and, most of all, introduce innovations that add competitive value.

Enforcing adherence to a Service Level Agreement guarantees the quality of the product. If the vendor is purported to have expertise in the field, the SLA

deliverables will have higher value than could possibly be generated in-house (*Outsourcing: Total Cost*, 2002).

Regardless of the long-term benefits of an outsourcing arrangement, nothing is more satisfying for the executive sponsors than short-term financial benefit. One immediate cost reduction might be the reduction of IT staff (*Outsourcing: Total Cost,* 2002). If personnel costs are relatively high and the IT requirements are specialized, varied, or infrequent, this may be the greatest benefit.

The vendor of an outsourced area can also benefit from a well-managed relationship. Suppliers who immerse themselves as a part of the customer's IT department often have higher customer service ratings (*Outsourcing: Total Cost*, 2002). They can achieve this by meeting SLA expectations, guaranteeing their workmanship, and cooperating with internal managers.

Conclusion

An organization must have BTM in mind when developing corporate strategy. When executives pen strategy, they must remember that it will be fulfilled in an environment where business and technology co-exist. This holds true when directors evolve strategy to define business models. The metamorphosis must take into account the business and technology areas that can be achieved in-house versus being outsourced. When directors discuss the business models to senior managers, they must concur upon the optimal processes to achieve the strategy. Some of those processes require internal information systems, while others rely on the management of external agents to meet the requirements. When a function is outsourced, the most effective method to manage the relationship uses the principles of Business Technology Management.

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