

Improving IT Outsourcing Value Creation With Emphasizing On Service Oriented Approach.

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Abstract : *According to predicted trends, the size of IT outsourcing is grossly increasing, however, it is still far from organizations/business owners expectations. The value of a service is best measured in terms of the improvement in outcomes, this can be attributed to the service effects on the performance of business assets and is far from the defined success factors of IT outsourcing. So, this paper adopts a new service oriented approach based on ITIL framework and proposes some factors and guidelines to create value in IT outsourcing.*

Key words : *IT Outsourcing, service oriented, life cycle, ITIL*

I. Introduction

Along with incident increase of Information Technology Outsourcing (ITO), organizations face with a dizzying array of evolving choices in terms of sourcing locations, suppliers, offered services, and engagement models. IT executives must master a substantial learning curve and maximize in-house capabilities to successfully grasp outsourcing opportunities.

Besides cost saving concern, organizations' outsourcing decision is influenced by many variables such as the awareness of success and risk factors, the outsourcing risks identification and management, and the project quality management [1,2]. The dynamic nature of modern business and public organizations management necessitates learning and applying any derived lessons, and watching and taking suitable actions on observed trends. Looking forward, McDonald's [3] suggests IT leaders need to develop an enterprise capability, comprising nine elements that are standardized, integrated, and operated together to achieve strategic goals. The nine elements address human capital, organization, processes, facilities and equipment technology, applications, information, rules and metrics, and specific tasks. Many of these elements will be sourced through a comprehensive portfolio of in-house workers, contract workers, and third party suppliers. But before IT outsourcing can work, "a company must be capable of managing the IT services first" [1].

Willcocks et al. [4] predict 13 trends about the size and growth of ITO and BPO markets, about suppliers located around the world, and about particular sourcing models including application service provision, insourcing, nearshoring, rural sourcing, knowledge process outsourcing, freelance outsourcing, and captive centers. They also identify five perennial, prickly, future challenges for practice pertaining to business back office alignment, client and supplier incentives, knowledge transfer, knowledge retention, and sustainability of outsourcing relationships. Nowadays, organizations are dealing with these problems [5]. Suppliers usually try to precisely align the final project output with business requirements and organizations' needs, however, sometimes organization fails to clearly define their project goals and what they really need [6]. Another issue is transferring the knowledge of product to customer in order to maintain or upgrade the product. Suppliers mainly refuse to transfer the knowledge to take the advantage in making future contracts. Organizations usually contract with various IT suppliers for different parts of their IT processes. Each supplier has different expertise and is committed to deliver a part of their IT processes as a whole. So each supplier tries to make their own output efficient and effective, but there is no guaranty that their output can nicely fit with other processes and make a consistent work system with a high performance. In many cases, suppliers denied to properly interact with organization or educate the organization staffs about how to use the product since they do not feel committed about the performance of the whole system. All these issues certify that organization who outsource its IT project does not received the expected benefit and value out of the outsourcing.

In this paper we adopt a new approach of ITO to address these issues and create expected value. We argue that if supplier play the role of a service provider and the organization adopt the service receiver role, the overall performance would be increased; service development or support comes after delivery; the knowledge would be transferred and staffs would get educated. A service-oriented ITO project provides mutual benefit and value for both organization as well as supplier.

II. Literature Review

2.1 ITO lifecycle: To be able to provide more value from ITO, we need first to recognize the exact evolved processes and steps. Lifecycle of IT outsourcing illustrates a sequence of activities which should be done during organizations IT outsourcing practice. As Table 1 shows, researchers have different points of view to outsourcing processes in different project milestones and stages. In the past researchers mainly highlighted outsourcing decision making, and investigated processes to find a supplier. But recently supplier-client relations [7], transition and execution [1] processes are discussed during the outsourcing lifecycles [1,7].

Table 1. Researchers' different points of view to outsourcing processes

Author	Year	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Demonstration	Remarks
[8]	2000	Define the main activity of the company	Assess adequate activities of the value chain	Analyze the main activity of the company	Carry out the analysis of interrelation-ship	-	-	No	It only assists to formulate strategic outsourcing decisions.
[9]	2000	Research related contextual factors	Research strategic and structural factors	Research the Traditional costs	Evaluate the management	Create outsourcing	-	Yes	It only considers outsourcing decision making factors with no weighting.
[10]	2002	Carry out the analysis of competences	Carry out overall evaluation of the factors	Negotiate for the contract terms	Implement the project, transfer eligible functions to an outside supplier	Manage Interrelation-ship, finish the contract	-	Yes	Supplier support and relation after contract is not modeled.
[11]	2003	Internal benchmarking analysis	External benchmarking analysis	Contract negotiation	Outsourcing process management	-	-	Yes	It does not investigate how project results should be transitioned to customer.
[12]	2004	Plan the activities of the process	Carry out the initial review of activities	Evaluate profitability	Carry out the search of suppliers	Make the decision	-	No	It only assists to formulate strategic outsourcing decisions.
[13]	2005	Architect (organization should investigate, target, strategize & design)	Engage (select and negotiate with suppliers)	Operate (transition, management and evaluation)	Refresh the contract, knowledge and strategy	-	-	No	
[14]	2007	opportunity identification and qualification	engagement and delivery	ongoing and post-deal assessment of benefits to the client	-	-	-	Yes	It has a supplier perspective and does not assess customer benefits.
[15]	2008	Business strategy	Contracting	Solution planning	Transformation of service	Transition planning	Transition termination-service operation	Yes	This model is very formal and structured and neglects supplier-customer relations
[16]	2009	Strategic evaluation	Contractual completeness	Relationship management	Outsourcing performance	-	-	No	Outsourcing performance includes narrow items (reliability, cost, quality, responsiveness)
[1]	2009	Identifying the need for outsourcing	Planning and strategic setting	Outsourcing vendor selection	Contracting process	Transitioning process	Outsourcing project execution and assessment	No	After project execution, the only item to be assessed is quality.

We adopted a more comprehensive outsourcing method presented by GD Putnik and MM Cruz-Cunha [17]. They defined 8 steps in an outsourcing cycle:

- Identify a process that might be advantageously offshored.
- Define objectives.
- Choose a vendor.
- Negotiate a service level agreement (SLA).
- Implement the agreement, that is, transfer the process to the vendor.
- Monitor vendor performance.
- Incrementally modify the agreement.
- Renew/cancel the arrangement.

As the authors admitted, similarly to previous approaches this cycle is derived from project management methodologies and has a product-oriented point of view. In other words, the output is considered as a product which once is delivered to customer, the project is closed. However, in many cases customer were not satisfied with the final product even though it was fully delivered based on their preliminary agreement. This means they are not satisfied with the performance. It may has many reasons, but mainly are due to trust and security concerns, cost, poor performance, unreliability and lack of fitness into organization processes and people [18]. In overall, it does not create their expected or desired value.

2.2 ITO success determinants

Another way of creating value is to identify success determinants of ITO. Concerning the determinants of ITO success, researchers have inspected three categories—the ITO decision, contractual governance and relational governance. These are very broad groups of determinants meant to capture the practices associated with ITO decisions, the practices associated with contracts, and the practices associated with managing supplier relationships which are presented in Fig 1.

ITO decisions: it explains how the degree of outsourcing, top management commitment and the evaluation process have affected ITO success. The degree of outsourcing is the amount of outsourcing as indicated by percentage of IT budget outsourced and/or the type and number of IS functions outsourced. The degree of outsourcing mattered. In general, too much outsourcing was associated with lower levels of success [19,20]. Top management commitment/support in ITO initiatives is a critical factor for success. Smith and McKeen [21] suggest top management's involvement in outsourcing decisions impact overall outsourcing success. The client organization's evaluation process for selecting suppliers seems to be a rather consistent predictor of the contract price, the outsourcing decision, expected cost savings being realized, and the achievement of outsourcing success in general.

Contractual governance: Contractual governance was operationalized most frequently as contract detail, contract type, contract duration, and contract size. Contract detail is the number or degree of detailed clauses in the outsourcing contract, such as clauses that specify prices, service levels, benchmarking, warranties, and penalties for non-performance [22]. In another article as a achieved lesson ,Detailed fee-for-service contracts had higher success rates than other type of fee-for-service contracts[23].Poppo and Zenger [24] found that contractual complexity (i.e. contract detail) was significantly related to ITO performance. Contract type is a term denoting different forms of contracts used in outsourcing. Examples include customized, fixed, time and materials, fee for service, and partnership based contracts. Gopal et al. [25] found that fixed-fee contracts resulted in less re-work than time and materials contracts. Contract duration also affects projects success in a way that shorter-term contracts have higher frequencies of success than longer-term contracts [23].

Relational governance: Relational governance covers the softer issues of managing client–supplier relationships, including trust, norms, open communication, open sharing of information, mutual dependency, and cooperation. Research conducted in this area show that higher levels of all the relational governance attributes are associated with higher levels of ITO success [1]. In some ways, the findings are obvious and trivial. Few people would argue that distrust, closed communication, or lack of cooperation would lead to better outsourcing relationships! Some of the more interesting research in this area uses interviews and case studies rather than sample surveys [26,27]. These qualitative methods allow researchers to understand why factors are important or how relational governance develops over time. For example, Sabherwal [28] studied 18 outsourced IS development projects in seven client organizations to determine the role of trust in client–supplier relationships. The paper provides a good overview of the different types of trust, including (1) calculus-based trust that is rooted in rewards and punishments associated with a particular project, (2) knowledge-based trust that depends on the two parties knowing each other well, (3) identification-based trust that follows from the two parties identifying with each other's goals, and (4) performance-based trust that depends on early project successes. The paper is one of the first to incorporate two important determinants of ITO success—trust (a form of relational governance) and structural control (a form of contractual governance). ITO success was measured by the quality and timeliness of project deliverables. The author found that relational governance and contractual governance must both be in place to ensure ITO success. More interesting, however, was the reciprocal relationships among trust, contractual governance, and ITO success. ITO success fueled further trust among clients and suppliers. In contrast, projects that suffered from delays or poor performance led to decreased trust.

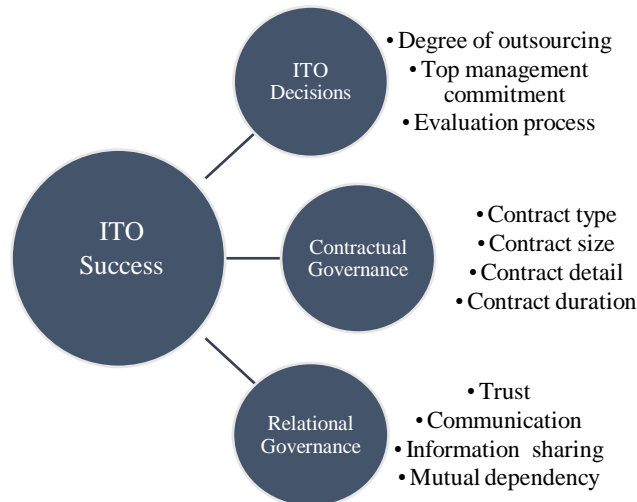


Figure 1. ITO success factors

III. It Outsourcing As A Service Not A Project

As it was discussed earlier, we adopt a service oriented approach to ITO to take the advantage of service essence and create more value. The value of a service is best measured in terms of the improvement in outcomes, this can be attributed to the service effects on the performance of business assets. To achieve this approach, ITIL is selected [29]; ITIL is a public framework that describes Best Practice in IT service management. It provides a framework for the governance of IT, the ‘service wrap’, and focuses on the continual measurement and improvement of the quality of IT service delivered, from both a business and a customer perspective. It discusses five stages of the service lifecycle, from the initial definition and analysis of business requirements in Service Strategy and Service Design, through migration into the live environment within Service Transition, to live operation and improvement in Service Operation and Continual Service Improvement [30].

ITIL argues that the service value will be delivered only through improving the performance of customer assets. As a matter of fact, what defines the amount of delivered value to the customer is the difference between the asset’s present performance and its performance when is supported by an IT service [31]. Following this approach, customer will only benefit when it finds this difference after outsourcing an IT project. Increasing the performance of an asset, motivates the customer to continue outsourcing its projects. We organized outsourcing steps in to four major categories of outsource decision, contractor selection, contract management and final successful service (refer to Fig 2).

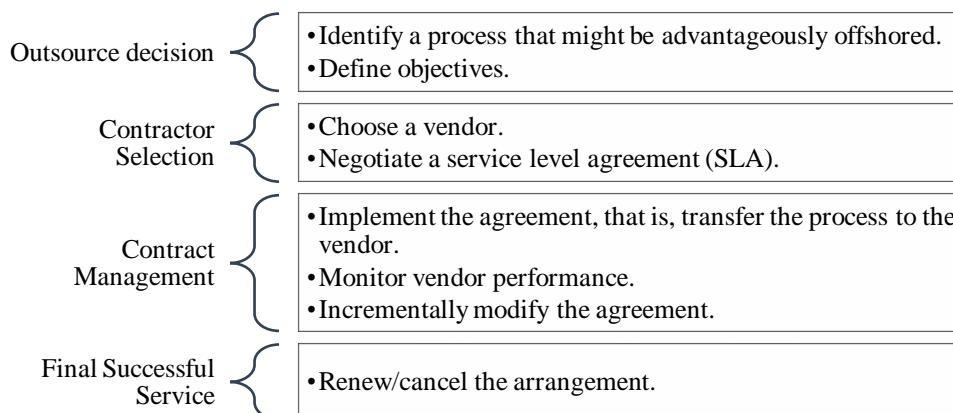


Figure 2. Categorized outsourcing steps

Since we adopted a service approach from ITIL framework, we added two more categories of Service Delivery and Service Support[30]. As Fig 3 shows our proposed model of Successful Information Technology Outsourcing (SITO), we defined three layers including: ITO set up, ITO service, and Service layer. If the final service has a satisfactory performance for both of service provider and service receiver, then ITO can be considered successful.

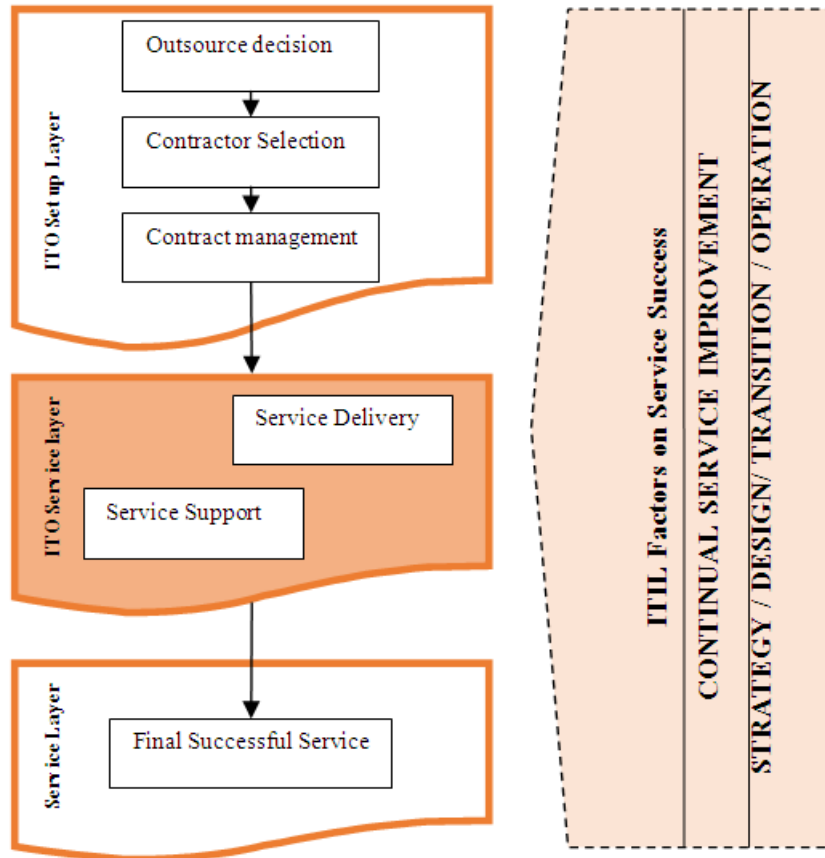


Figure 3. Successful Information Technology Outsourcing (SITO) model

In the first phase, ITIL advises to build a proper cost efficient IT strategy and make a right balance between cost and performance. Then defines what is needed and why. In the design phase, IT services should be designed in alignment with service strategy. Service transition phase specifies building and deploying IT services according to service design specifications. Its target is having minimum impact into the production environment. Next phase is to deliver and manage services based on the agreed SLA with customer. And the last phase provides some metrics for improvement of IT processes and initiates improvement projects.

IV. Value Creation Factors And Guidelines

To our best of knowledge, the analyzed factors related to outsourcing assessment are mostly from the viewpoint of transaction costs economics. Some other research concentrated on identification of the factors which influence outsourcing success regardless of organizations role in success during product or service development [32]. In order to investigate which factors can really create value in IT outsourcing projects without ignoring organizations' role, we referred to ITIL service success factors in five phases of Strategy, Design, Transition, Operation and Continual service improvement[30]. All the presented metrics by ITIL were reviewed and the most relevant factors which can be considered in ITO to achieve success with maximum value were extracted. These factors are presented in Table 2.

Table 2. Value creation factors and guidelines of SITO model

SITO model	Value creation factors and guidelines
Outsource decision	<ul style="list-style-type: none"> ➤ Business outcomes should be discussed clearly as the main targets of the Services. ➤ The value of warranty needs to be defined with organization perspective in terms of the availability, capacity, continuity and security. ➤ The definition of value for business/organization should be clarified. ➤ The expense of a service have to be justified through clarifying useful sources and the business outcomes in service definition. ➤ The advantages and mitigated risks should be combined in sourcing strategy through cutting across the boundaries of more than one organization. ➤ The potential performance of services have to be visualized to root all decisions made by managers in creation of value. ➤ The organizational change needs to be planed and precipitated by the sourcing strategy with a formal and verifiable description as to how decisions on services are made. ➤ There should be an outcome-based definition for services to ensure that they create value.

Contractor selection	<ul style="list-style-type: none"> ➤ Senior management should be committed and all members of the organization should support. ➤ The dynamics of the market space have to be managed through appropriate strategies. ➤ Every market space that the service provider supports needs to be assessed and analyzed. ➤ Options of selection of a service provider should be clarified and prioritized. ➤ The service provider position have to be determined with respect to the prioritized options. ➤ Selection of the service provider should be based on the greater certainty in the support of business outcomes. ➤ Suppliers who have achieved certification against internationally recognized certifications, such as ISO 9001, ISO/IEC 20000 have the first priority to be selected. ➤ The key responsibilities of monitoring the performance of the agreements and the overall relationship with providers should be assigned. ➤ Resource alignment and organizational structures need to be analyzed and adjusted based on the new or enhanced services.
Contract management	<ul style="list-style-type: none"> ➤ Guidelines and reference points (technical, procedural, organizational) have to be shared between the various service providers to support development of sourcing relationships in a multi-vendor environment. ➤ Establishment of a set of relationship standards and processes. ➤ It should be clarified where service improvements are truly required within the context of business assets, performances and outcomes. ➤ The direct and indirect costs should be approached logically to first determine which line items are sensible to maintain, given the data available and the level of effort required. ➤ SLA metrics are necessary to measure the quality of service. ➤ Besides the SLA metrics, the utility and warranty to be delivered should be assessed. ➤ Demand should be consolidated to reduce operation risks. ➤ Performance standards for usability evaluations need to be established. ➤ Contract should be established formally with clearly defined, agreed and documented responsibilities and targets. ➤ Change Management process should be designed to handle adding new suppliers or contracts. ➤ Manage service level and negotiate, agree and document appropriate IT service targets with representatives of the business. ➤ Whatever is discussed in SLA be effectively controllable and measurable at a commonly agreed point. ➤ All agreements and underpinning agreements, including SLAs, underpinning contracts and OLAs, must be kept up-to-date. ➤ Service providers should produce reports and information of how the service and its constituent components are performing with respect to their overall service targets and constraints. ➤ Long-term Financial Management should be planned in the contract with a joint effort directed towards maintaining the financial equilibrium.
Service delivery	<ul style="list-style-type: none"> ➤ An optimal balance between cost and quality should be achieved through operation processes. ➤ Staffs should be recruited and trained toward developing competency in dealing with and managing customer relationships and interactions. ➤ Reactive Problem Management to be executed and Proactive Problem Management to be initiated as part of Continual Service Improvement. ➤ Teams or departments responsible for implementing Information Security Management policies and standards should work closely with Service Operation teams. ➤ Documentation related to applications should be defined and maintained with co-operation of Software Development teams. ➤ Typical risk reduction measures to be placed: <ul style="list-style-type: none"> • Installation of UPS and backup power to the computer; • tolerant systems for critical applications where even minimal downtime is unacceptable arrays and disk mirroring for LAN servers. ➤ Appropriate Risk Analysis and Management techniques should be used to identify and quantify risks and justifiable countermeasures that can be implemented to protect the availability of IT systems. ➤ Good interfaces and communication channels should be placed between the parties.
Service support	<ul style="list-style-type: none"> ➤ Track changes through the service lifecycle and to the assets of the organization. ➤ Disruptions due to high levels of unplanned or 'emergency' change should be minimized to improve productivity of staffs and service availability. ➤ To transfer a business unit, service or service unit, the organization structure, roles and responsibilities should be reassigned and finalized. ➤ People should accept to adopt new practices. This requires good communication of the consequences and requirements of the deployed service. ➤ Staffs with appropriate skills to be recruited instead of developing new skills for existing staff. ➤ People with appropriate skills to be moved or re-allocated as necessary. ➤ The knowledge transfer plan should be executed and progress should be tracked to completion. ➤ The proposed changes to the operational services should be delivered according to the agreements, specifications and plans within agreed confidence levels. ➤ The risks associated with the transition of services (introduction or disposal) have to be assessed. ➤ Awareness of current technological environments for different types of business, customer, staff and user is essential to maintaining a valid test environment. ➤ A service knowledge management system has to be developed, shared, updated and used by its operating entities, partners, and customers. ➤ The IT services should be recovered following a disaster in: <ul style="list-style-type: none"> • the required timescales; • with the required functionality and the required performance. ➤ Last relationships with service providers to ensure that common objectives drive everything.

	knowledge is shared effectively between units, and experience is fed back into future plans and actions for a steeper learning curve.
Successful ITO	<ul style="list-style-type: none"> ➤ Services have to be measured and controlled based on a continual cycle of monitoring, reporting and subsequent action. ➤ Solutions that can help expand the Service Portfolio should be Researched and Developed. ➤ The selection of the metrics, the point of measurement and the methods of measuring, calculating and reporting on the metrics should be designed and planned. ➤ IT availability needs to be measured and monitored according to the agreed availability levels with service providers.

V. Discussion And Conclusion

Do the success factors of IT projects create value? After all we discussed we have to answer the paper question: not exactly! The factors which are defined for ITO success target the success of the projects not creating value even after closing the project. The value creation factors and guidelines which we extracted from ITIL framework cover all the success factors presented in Fig 1, but it is not correct in return.

Since we look into the ITO with a service approach, its management and critical success factors would be totally different with product delivery. What we try to insure is that IT knowledge held by an IT supplier can be translated into productivity gains for a client firm directly beyond the project issues and communication challenges. Moreover, formal relationship with IT supplier while they are supporting their services, can smooth knowledge transition into the organization due to its non-rival entity. This means may the organization learn from IT supplier while interacting with it and also align other services and processes which results in overall performance improvement. In this context, we can consider ITO as an explicit and implicit knowledge channel.

In future, we plan to evaluate the proposed value creation factors and guidelines through a case study. We expect these factors and guidelines bring efficiency and value in to the organizations business and motivate them to continue and enjoy from ITO practice.

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