

OFFSHORE OUTSOURCING FOR MANAGING GLOBAL IT PROJECTS

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ABSTRACT

Offshore outsourcing as a strategy for management of Information Technology (IT) development and maintenance has gained momentum during recent times. A trend that began as a tactic to move low-end IT work to offshore location to cut costs of business computing has now entered the realm of mainstream decision making, which some call a mega trend. The increase focus on offshoring is prompting business leaders and management gurus to examine successful practices of globalization. The study aimed to investigate the impact of offshore outsourcing on IT sector with respect to communication model and various management dimensions. Secondly it is also to explain how the process improvement can help project execution model. Outsourcing of IT is not an isolated trend but part of a bigger shift towards the globalization of business processes. As outsourcing has moved beyond IT to include a broader range of business process, it has evolved from a short term tactic into a long term strategic play.

Keywords: Outsourcing, Information Technology, Project Management, Strategy.

Introduction

Offshoring models and strategies in the IT industry are evolving and beginning to show signs of maturity. While client organizations are beginning to consider offshoring as strategic tool for management of IT applications, Software service providers are also getting comfortable taking on larger, geographically distributed projects. They are posing their proprietary development models as differentiators in the marketplace. 'Global Delivery Model', 'development follows the sun', '24x7 delivery', 'Strategic outsourcing, and offshore Outsourcing Model' are some common phrases used in the nascent industry. Some of these delivery models from vendors are being positioned to be proprietary, and there is a common thread running through the building blocks. A case in point is a query from a client team on an offshoring blocks. A case in point is a query from a client team on an 'offshoring study mission' to India:

It is to leave with a better understanding of the delivery models of offshoring and would like to 'see' it in action.

Objectives

- The communication model and management of an offshore project.
- What change we need to make in our process and project execution models to work with an offshore provider.

This brief perhaps sum up the essence of where many outsourcing organizations are coming from. Enterprises with existing IT infrastructure, management systems and processes in place are looking to leverage the offshore project execution capabilities of service providers and vendors and in some cases set up their own subsidiaries. Executives are also realizing that executing and delivering IT projects involve regular challenges that they already have processes to address; global delivery is an added dimension to the management imperatives. This new dimension itself involves several unknowns and challenges including managing efforts and schedules of different people, component and resources from world. This also includes the need to acquire knowledge of practices to ensure smooth transfer of work and work-products between offshore and onsite teams.

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While researching the emerging trends in globalization of project management and offshoring, it was obvious that although several service delivery organizations use proprietary processes to manage offshoring projects spanning geographic and cultural boundaries, the core of their processes follow distinct patterns. The model adopted by service delivery vendors and offshoring organizations derive from published body of knowledge of project management and application development life cycle. Best practices of globalization, internationalization and managing the work flow of team and group dynamics also extend into such practices. It could be tried to control the complexities of offshoring vendors and with special focus on managing and implementing projects and starts according to what we assume in offshoring management framework.

It is assumed that OMF is the same details of industry as it practiced in organizational process and it will be same for long time on which ground mostly IT managers and planners do development functions. The frame work borrows extensively from other publicly available sources including published articles, whitepapers and corporate websites. Although it draw on experiences in managing global delivery projects, we shall consciously attempt to exclude any references to an individual organisation's proprietary know-how and practices. References to Infosys' business and operating models will be restricted to publicly available published material.

Offshoring Management Framework (OMF)

Large business may follow several paths towards offshoring sometimes using a top-down or bottom-up approach towards sourcing. Some organization follow a bottom-up approach by allowing individual IT division and groups to try outsourcing at individual projects and programme levels before formulating an organizational strategy. In such an approach, the organization may have few internal offshoring experts, essentially managers who learn the intricacies of sourcing by sending a few projects offshore. Over a period of time, such internal experts may be called in to provide inputs to other project teams and groups. However offshoring experts in the bottom-up approach may not have formal authority to set standards for use by others but act more as a point of reference. A few organization like General Electric articulate their corporate sourcing strategy formally; such strategies may be bounded with their overall IT planning and strategies which they roll out to the different Line of Business units. Managers from the planning group may from a part of a Programme Management office and may have formal authority to define and articulate an org-wide strategy.

In many organizations, offshoring is a reaction to changing business dynamics and not a formal strategic initiative. Even in such instances, organizations and managers don't have access to formally published sourcing models and generally depend on their vendors to proactively suggest approaches. As offshoring strategies may survive beyond the life of relationship with a vendor, managers and business leaders need to take a vendor-neutral approach towards sourcing and eventually work with vendors who are comfortable with other popular models.

The proposed offshoring management framework will attempt to address some of the most common managerial issues and challenges faced by companies that are evaluating models offered by different vendors while formulating their individual strategies. It can be used similarly as planning for projects spanning geographic and cultural limitations. The management intend for global delivery of software include buy-in and sponsorship by senior managers, the development and maintenance of life cycle in project management and operation by environment of open communication can be developed by the teams.

Offshoring outsourcing is increasingly being viewed as a strategic practice of sourcing and managing business processes and software systems to low-cost offshore locations and includes Business Process Outsourcing (BPO) and Information Technology Outsourcing (ITO). However the study of outsourcing Management Framework is primarily focused on offshore outsourcing of Information Technology and ITO. Managing It projects and development is distinct from management of projects in other business verticals due to the strong artistic engineering focus that cannot be decoupled from the process orientation. Added to this is the challenge that stems from the debate over whether application software development is engineering or an art. Management of an engineering process is more process oriented and distinct from managing an artistic process. Interestingly, this debate is not really new; it was stirred over three and half decades ago by Donald Knuth. IT mangers generally attempt to take a middle ground as they bridge the gap between the business and functional domains and technologists. The goal of managing IT delivery projects is to ensure that the activities articulated in the Technical domain segment Fig.1 conforms to the business objectives on the left side and delivers applications and software solutions to address those objectives.



Figure 1: Managing IT Delivery (Made by author)

The technical domain described in the figure above is perhaps the sweet spot- at the intersection of business needs and technical challenges- where Technology managers add the maximum value. They attempt to marry their understanding of technologies and business drivers, while bringing the required management rigor and focus to the art and engineering of software application development, getting technologist and business functional experts to communicate and orchestrate their delivering goals is a key challenge. Interestingly, the technical domain is also the key focus area in any outsourcing initiative. The realization of business objectives and requirements by ensuring that the application development efforts are synchronized towards building a software solution is perhaps the *raison d'être* of technology offshoring.

Governance Layer

The governance of offshoring is increasingly being viewed as one of the most crucial aspects of a sourcing strategy. Managerial support for offshoring is necessary for successful deployment of projects, development, delivery and programme. 'offshoring is strategically important challenging- and requires strong governance. Most of the firms establish a steering committee from the very beginning to oversee initial development and on-going operations.' Says a recent Deloitte report. Managerial sponsorship is essential for leading global management and solve problems and challenges. Senior management will also help in dealing with problems and challenges before they escalate. The key dimensions of offshoring governance include:

- Definition of service level agreement: This could be between and offshore and onsite team, or the client and the vendor.
- Programme management: this could include establishing a formal offshoring programme management office.
- Transition management: Includes strategies and tactics for transitioning an organization towards becoming a strong offshoring player.

Offshoring management people will comprise from sourcing (onsite) and the vendor (offsite) organization. Which will be same for both organization, offshore governance shall include:

- **Offshore Development Strategy:** Clear strategic objectives are necessary for client and vendor organization for cost reduction and giving IT works to service provider, in other words we want that IT management should not involve with operation management for better focus on technology adoption with respect to others.
- **Steering Committee:** A steering committee with senior executives delegated from the client and vendor's decision and guide the operations of the offshoring initiative. An example of an escalation to a steering committee could include contract rate changes. Though there may be a persisting. Master Service Agreement (MSA) between the client and vendor regarding rates for certain types of services; the steering committee may be empowered to override such rates if there is a sudden change in the market conditions. Such empowerment will help business continuity without impacting the overall performance.
- **Define the Working Model:** It is the job of governance team to make sure that people should work for collaborative, flexible environment. With the passage of time goals of business and relationship not static, that is why managerial teams should pay attention for developing good environment that could help in change in spite of future calculation at a time.
- **Articulating Measuring and Monitoring the SLA:** if we have some expectation then it is necessary to clear the definition of the SLA by the managers.
- **Stakeholder Management:** in business the life of people is badly affected in transition phase so offshoring should be dealt with at most care.

- **Dispute Resolution:** success of outsourcing is expected by all the people of different functions, but differences may be there at different times. It is responsibility of managers to minimize it as possible. The key issues of management of an offshoring are monitoring, reviewing and managing the duties of projects and teams. Governance of offshoring includes transition management, and the management of steady that is difficult job of management to benchmark and control the programme and project. It may also involve liaising with key stakeholders across the organization. Case in point is the offshoring strategy being adopted by General Electric that is being questioned by a few. The bold and aggressive plan adopted by the company will constantly have to be justified to all stakeholders including will constantly have to be justified to all facets of stakeholder management that the offshoring governance council may be called in to address.

Service Level Agreement (SLA)

Offshore governance aims to establish the goals and expectations upfront, and one of the means of doing this is by defining and managing a robust SLA. SLA management essentially translates to the process of articulating metrics for tracking the progress of individual project and progress and ensuring they meet the goals of the overall systems. Effective governance of offshore IT management includes defining the business drivers and technical contract data. The business drivers could consist of the need to minimize financial losses and penalties due to service-level violations. It should also provide adequate incentive to perform above and beyond the metrics, which would translate to better ROI. The technical drivers include the need to improve productivity and lower the Total Cost of Operations (TCO) while enhancing best practices and overall efficiencies. Some of the aspects to consider while defining and managing SLAs of offshoring initiatives include:

- **Performance Measures:** Managers and project teams will need to benchmark and calibrate performance measures measurements to drive their tasks and to work towards achievable goals. The metrics to measure and monitor the business and technical drivers of projects and programs need to be clearly articulated in the SLA. The existing metrics, performance measures and process will be considered while setting achievable targets and performance measures. For instance, if reduction in TCO is a measure defined in the SLA the existing cost of operations and other financial measures will have to be clearly articulated. Another example of a measure in a Batch application system maintenance could be % of time batch jobs were delayed. The delay in percentage terms is measurable and easy to relate to. The SLA may have both positive and negative reinforcement; for instance a positive reinforcement may be in the form of defining predefined targets and incentive for exceeding them. A negative reinforcement may be in the form of penalties for non-performance.
- **Scope of SLA:** In an offshoring context the coverage of an SLA could range from that of individual projects to the scope of the entire engagement. The coverage and scope needs to be clearly defined and agreed upon by all parties. In large outsourcing engagement the client and vendor may agree on different SLA measures for different work activities including production support and maintenance, Application Development, Testing among others. Clearly defined scope will also determine the performance measures and help in monitoring the progress of tasks and activities. The SLA document may be an addendum to a formal contract agreement and may take on a legal slant as it attempts to set the agenda for sourcing and expectations along with the necessary due diligence.
- **Achievable Goals and Targets:** The goals and targets defined in the SLA should be achievable and realistic in order to provide for a win-win agreement among all parties. The team members of service vendor and offshore delivery organization should be able to understand and work towards the goals. In certain instance, business goals may need to be translated into technical goals for the application system since they may not be easily understood by techies. For instance, a business goal like achieving high customer satisfaction metrics may need to be translated to measurable technical targets like 'Near Zero System Downtime' % of time response occurred within 15mins for critical items. While setting goals and targets typical SLA's will also call out causes beyond reasonable control, a.k.a. Force Majeure events. Typically Force Majeure clauses cover natural disasters, "Acts of God" or war.

SLA definition and management is receiving increasing attention among business leaders and management experts who are working to understand and articulate the best practices of offshore governance. Thomas Lynch advised five aspects of focus to remove shortcomings of offshoring, that comprise contractual terms and conditions, International issues, Agreements issues, Privacy issues,

Sarbanes-Oxley issues. A well-defined SLA with rewards for high performance and penalties for non-performance along with articulation of clearly measurable and achievable targets, limiting the responsibilities tied to an offshoring contract is an essential constituent of offshore outsourcing Governance.

Transitioning Offshoring

Managing the transition from existing IT infrastructure to offshore teams is an emerging area of focus. Executives and managers at offshoring organisation need to be aware of the intricacies involved in moving from the initial, observer stage to a stage where they reap the benefits of offshoring. Organizations typically move through four stages of transition (Fig. 2) from observers to strong offshoring players. This also implies that translating an offshoring strategy to operations is not a project that can be executed instantly. An offshoring strategy may simply be the desire of the senior that desire to fruition may involve intricate operational transformation that could take anywhere from 24 to 60 months. The real ROI may not be apparent till the committing stage or till the firm becomes a strong offshoring players

The four stages of offshoring transformation are as follows:

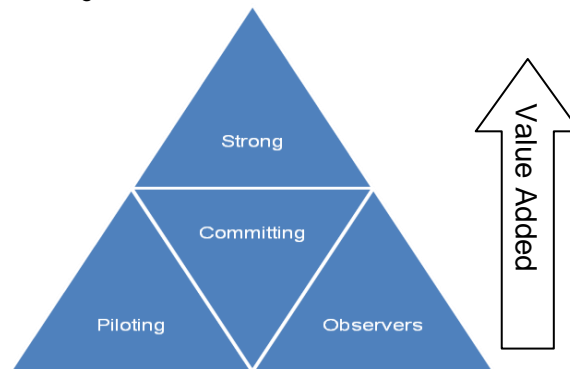


Figure 2: Offsourcing Transition (Made by author)

- Observer Stage:** The first stage of sourcing maturity at an enterprise begins with the recognition of the need for offshoring; offshoring management needs to become an integral part of an IT strategy. During the initial observer state, there may be very little interactive in offshoring and the activities will involve gathering data and metrics and there may be a need to define a business case for a sourcing strategy and observing trends in the marketplace. Organizations may solicit inputs on trends from software service organizations, consultants and analysts during the initial evaluation. Such evaluation will also set the ground for piloting applications for sourcing.
- Piloting stage:** On recognizing the benefits of offshoring, organizations will graduate towards the piloting phase when they may identify one or more projects to be offhored. A Long side piloting, managers may also begin an application portfolio analysis, define the offshoring roadmaps and select the appropriate sourcing models and vendors. The positive results from such piloting activities may convince the senior management to commit to an offshoring strategy. The offshoring roadmap may describe the portfolio of applications while giving weightage to individual application that may derive maximum benefits in the least amount of time. For large enterprise, the piloting stage may involve defining the overall sourcing roadmap including considerations of globalization, external landscape analysis and offshore vendor visits. Vendor visits are gaining significance as organization contemplates larger offshoring engagements. Such visits may also include a tour of the country, detailed meeting and an evaluation based on a formal agenda.
- Committing Stage:** Organizations will be ready to commit themselves to offshoring after successful piloting projects and defining an offshoring roadmap. This may include evolving governance technique offshore program management strategies and moving more complex applications offshore. This stage is also sometimes called the beginning of a steady state of offshoring, which translates to an opportunity for service providers and consultants.
- Strong stage:** The end goal of offshoring strategies is to move to a stage of maturity where the organization optimizes on the benefits of sourcing. Working with vendors and executing projects with consistent predictability and processes will help organizations derive the promised benefits of offshoring.

The level of maturity of an enterprise, along with the stage of sourcing will influence the selection of the offshoring of sourcing, will influence the selection of the offshoring model and the transition into a mature offshoring stage. Management initiatives typically take off when business leaders and executive observe trends in published journals, articles or while they are involved in planning and benchmarking against competitors in the industry. Even though most large organizations are exiting their offshoring strategies, few have transitioned to a steady state of offshoring. The movement of an organization from the observer stage to becoming a strong offshoring player can be challenging and rewarding. Managing the steady of offshoring may include aspects of general management, project management and also cross cultural management. During the committing phase, a firm may commit to a particular offshoring model and begin working with offshore teams, either its own or a vendor's. During this place, the management will also begin documenting the benefits of sourcing and continue tracking the progress of sourcing according to the defined roadmap.

Managing Offshoring Programs

Projects, with fixed deliverables are the smallest units of managing discrete tasks and service that need to fit into an organisation's technology roadmap. Technology initiatives are either undertaken as fallout of strategic decisions to transform business units or to ensure that the business operates optimally in a steady state. They may be undertaken at strategic levels to ensure business transformation or to ensure maintenance and sustenance of applications where IT teams work towards ensuring that business systems continue to serve the changing business operations. The technology initiatives often involve multiple projects aimed towards predefined targets that need to be managed in tandem with the overall goals and synchronized with the other projects being executed. This umbrella process of getting multiple projects to work towards strategic goals is also called program management. Program management aims to extend the traditional project management methodologies to synchronize the work of multiple projects, sometimes involving multiple vendors. In case of offshoring, the programs and global projects may span across geographic and cultural boundaries.

Multiple projects at large organizations are typically overseen by dedicated program managers who are a part of a formal group called a Program Management Office, sometimes called a Project Management Office (PMO). The groups or individuals are tasked with monitoring the activities of individual projects and bringing structure and formalism while buffering the technical teams from the issues pertaining to management and project boundaries of an organization and in case of offshoring even outside the organizational boundaries. The goal of a PMO is to provide tools, methodologies and resources to help managers streamline and automate many of the management tasks. The benefits include improving overall productivity and probability of success and more consistent and simplified management leading to higher customer and user satisfaction. The office of Program Management acquires greater significance in an offshoring context. Organizations that typically source multiple projects to vendors need a single point of contact to manage and administer outsourcing programs. Such activities may be done by individual managers or a formal PMO. Vendors and service delivery Managers to act as a single point of contact overseeing multiple projects for clients. Some of the keys areas of focus from a globalization context at PMO's (Ref: Program Management in Fig. 3) include:

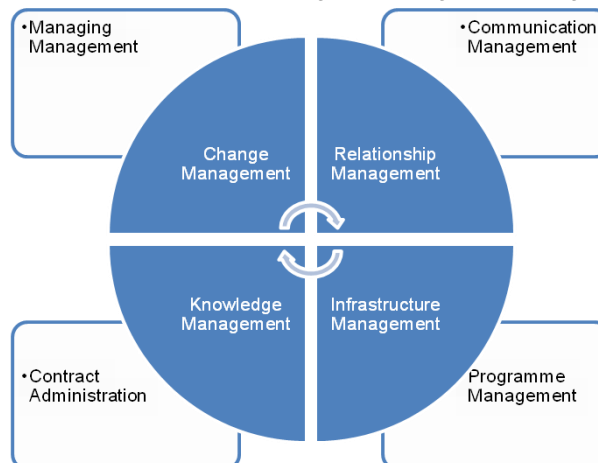


Figure 3: Programme Management (Made by author)

- **Facilitating Communication:** Managing communication between teams and across projects, program and organizational boundaries is perhaps the biggest challenge managers face. Some of the communication challenges attributable to offshoring that PMOs focus on include:
 - Interfacing with the executive steering committee, especially on issues pertaining to contract administration, vendor negotiation and other third party management
 - Facilitating communication between teams, groups and organizations
 - Directing and synchronizing teams of people working across geographic and cultural boundaries.
- **Managing Relationships:** The key to any successful offshoring initiative is the management of relationships Program Manager manages aspects pertaining to relationship including negotiations, setting project expectations analysing the work output and other aspects pertaining to the smooth functioning of projects. Relationship management by an onsite PMO may include focus on liaising between individual business units, IT teams and offshore vendor teams. A PMO at a vendor organization will focus on co-ordinating with onsite teams and ensure that the different project teams work towards consistent, predictable delivery. This may include addressing project issues and any contingencies that may arise during execution.
- **Contract Administration:** Contract administration involves the process of ensuring that the vendor's performance meets pre-determined requirements. Contract administration, selection of approved vendors and relationship management, especially in large organizations is a specialized functional area. Contractor and vendor management can be a challenging activity even during the best of times and acquires a new dimension in case of offshoring projects. A sound contract is the key to a successful offshoring relationship and should encompass issues such as financial terms and payment, quality of service, escalation mechanisms, contract termination and closure, intellectual property etc. contracts, by nature, are closure, intellectual property etc. Contracts, by nature, are legally binding and enforceable. Managing contracts in an international setting can add new dimensions and complexities that Program managers and administrators need to be aware of an include:
 - Vendor selection and management.
 - Monitoring, reviewing and approving billings, invoices and other financial aspects of contract administration.
 - Reporting, including verification of work tasks and activates signing off milestones and other status reporting.
 - Analyzing Vendor performance and SLA . This may also include proactively suggesting corrective action where necessary.
- **Change Management:** Change management is an integral aspect of managing application development projects since changes in scope, requirement, technologies and other aspects of business changes, newer delivery models, emerging communication paradigms and best practices. It is the responsibility of the PMO and project managers to ensure that the changes are abstracted from the teams as much as possible. Also essential is the definition of guidelines for managing scope change and change requests. We will revisit aspects of change management in greater detail later the book.
- **Infrastructure Management:** Offshored projects have their unique challenges and infrastructural needs. The challenges include the need for specialized software to manage communication and the hardware, network connectivity and environment set up and changes. Tools and technologies for smooth management of offshore development projects. Individual projects may have their unique needs that a infrastructure like network, bandwidth, communication and other aspects may need to oversee by a PMO.
- **Knowledge Management:** A PMO may also be expected to act as repository of the project management best practices, points of reference for organizational data and documents. tools and templates. Large organizations typically have well defined tools and templates for most of the commonly encountered management processed activities. Such automated tools encouraged unobtrusive information gathering and sharing. Program Managers should facilitate the use of such organizational tools and practices.

- **Travel, international Business Management:** In an offshoring context, Program Management faces newer challenges pertaining to travel schedules and associated logistics include changing immigration and visa regulations in host and native countries, travel advisories and other aspects that could adversely impact trade and operations.

Conclusion

There could be many reasons why organizations consider offshoring. One reason could be due to benchmarking by executives and industry leaders who constantly look for emerging best practices in Technology Management. Offshoring being one of the emerging best practices is being actively watched by managers across industry verticals and by academicians who are publishing an increasing number of articles and papers in journals. Offshoring initiatives, we observed, can be top-down or bottom-up. In the bottom up model, individual managers and groups in an organization begin to document success of small-scale offshoring organically before management decides to expand it across the organization.

There is a need for a vendor neutral offshoring model that organizations can use to develop their offshore outsourcing strategies independent of vendor's models. In this Paper, we introduced the Offshoring Management Framework, which is intended to provide a frame of reference for evaluating sourcing model. The OMF may also be adopted for use by vendors looking for industry best practices. The four major areas of focus in the OMF are Governance Layer, Management Layer, Project Execution Layer and Communication Layer.

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