



Strategic Outsourcing and Global Delivery Challenges

Applied Project

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Abstract

As globalization spreads, it opens up opportunities and challenges for IT service providers. To compete effectively, service providers have to change. Strategies and organizational structures that once worked for serving clients on a local level are no longer efficient with this evolving global delivery model.

The major issues targeted in this research were focused around communication requirements and strategies, culture impact, new risks related to off-shoring, and the impact of global delivery on work structure.

The analysis focused on major issues and suggested various options. The SWOT technique is used to support the analysis and to provide the vehicle to identify the strategies and recommendations for this study.

The globalization of IT services and outsourcing is a win for both outsourcing service providers and clients. Off-shoring is not a panacea for all ills, but companies feeling economic pressures have more options than they did years ago. The growing capabilities in global delivery countries are adding new options and advantages for both the outsourcing service providers and clients.

Global delivery and outsourcing will require many strategies to deal with the challenges facing this industry. Strategies suggested are Weakness/Opportunities Strategies and Weakness/Threat Strategies.

Communication strategies are key success factors and should address the risks and client satisfaction issues related to global delivery resources in client facing roles. Good communication practices help management get the outcomes they desire. Developing good communication habits takes some conscious attention, but once they become familiar, they can be the secret to improving relationships, increasing productivity and advancing careers. Communication is the management area that will help mitigate the impact in other areas such as new risk management, culture issues, work structures, and relationships.

Tools and governance must be integrated with processes to provide the framework that will fill the gaps and manage delivery performance. The implementation of an Engagement Management Office will bring more effective management systems for global delivery. The Engagement Management Office in the global delivery model will manage resource utilization (locally and globally), align the outsourcing strategy for each project with the organization strategy, manage compliance with multiple standards, and maintain relationships between all stakeholders, including new ones introduced with the off-shoring model.

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1 Introduction

The growing integration of economies and societies around the world has been one of the hottest topics debated about its future, delivery value added, and economics. Rapid growth and poverty reduction in global delivery countries such as China, India, and other countries that were poor 20 years ago, has been a positive aspect of globalization. Globalization has generated significant international opposition over concerns that it has increased inequality and environmental degradation.

As globalization spreads, it opens up opportunities and challenges for IT service providers. To compete effectively, those companies have to change; especially in the ways they court their biggest customers, many of which are stretching their legs globally. Strategies and organizational structures that once worked for serving clients on a local level are no longer efficient with this evolving global delivery model.

In the “**CIO Global Guide Outsourcing World Tour report**” in 2004 [6], it referred to Gartner analysis which suggested that one out of every 10 jobs with U.S.-based IT vendors and service providers will be staffed offshore. Eighty-six percent of the 101 IT executives surveyed in 2003 said they already offshore application development, and 26 percent offshore their call centers. At that time, they even predicted those numbers would rise.

1.1 Background

The volume of potential work that is transitioned to global delivery will require considerable changes in practices, behaviours and management. The CIO report “**Pros and Cons of Offshore Remote Infrastructure Management**” highlighted McKinsey's recent analysis [22] which suggested that some IT services are more easily transitioned abroad due to skills availability and proximity requirements. Table 1 illustrates potential IT services that have globalization potential.

Table 1: Potential IT Service off-shoring

Network Services	80%
Internal Help Desk	75%
Servers	70%
Maintenance	60%
Administration	35%
Mainframe	30%
End-user Devices	15%

Source: McKinsey

Most IT executives are following the investment of global services providers which are flowing offshore. With business growing, IT executives are looking at how they will support growth in the future. All signs point to global delivery. The industry decisions will be driven

by cost savings. In India, as an example, clients get highly qualified support from people who cost one-quarter to one-third of the equivalent skill-set in Canada or the U.S.

Since 2002, global delivery conditions and characteristics have evolved. The gap between India's market share and that of other countries keeps growing. More work has been transitioned to India than other global delivery countries. However, the U.S. IT industry showed some trends to balance the global outsourcing risk by considering neighbours like Canada and Mexico. Canadian suppliers can handle highly complex projects better than other nations, as well as demonstrating deep familiarity with U.S. business. However Mexico continues to offer an attractive cost structure. Both have geographic proximity for U.S. outsourcing contracts.

During the same period, new countries of the European Union such as the Czech Republic, Poland and Hungary are an enticing near-shore option for Western European enterprises and Europe-based U.S. businesses.

Most IT service providers in the strategic outsourcing industry will continue transition plans to other global delivery countries to meet clients' expectations of less cost for IT service. As an example, one of India's outsourcing titans is predicting a 13-15 percent growth in 2009, according to Senn, Christoph et al, (Mar 2007) [25]. The company has no plans to scale back, and is committed to keeping 25,000 new hires it made this year, adding to its workforce of 100,000.

IBM is one of the top three providers in this industry. It continues its strategic plans to transition to a Globally Integrated Delivery model. Revenue growth in IBM India Global Delivery Center (GDC) continues to outpace that of several of the Indian providers - which is expected to continue.

IBM Strategic Outsourcing (SO) provides complex, highly-customized solutions, focused on transforming the client's IT environment. We define Strategic Outsourcing as the management of information technology (IT) systems. IBM manages and operates other company's IT systems under a mutually beneficial agreement. The outsourcing agreement may include the transfer of IT employees and IT assets to IBM. IBM provides service level assurances to ensure that quality of service is attained and measured.

1. IBM Data Center Outsourcing Services are designed to provide a tailored outsourcing solution to meet client needs. The client chooses the platform, the software, the usage level and degree of support that most closely matches business needs;
2. With IBM Managed Server services, clients can acquire server management, middleware and data base services from IBM for one competitively priced, monthly fee. This includes both traditional hosting and new virtual hosting services based on our IBM DPS Reference Architecture;
3. Managed Storage Services is available in two options: (1) Data and the associated applications are housed at one of IBM's e-business Hosting or Strategic Outsourcing Service Delivery Centers or (2) Data and the associated applications are housed at the customer's data center;
4. IBM Network Outsourcing Services provide a managed and integrated network solution for businesses that do not want to own or run their network or network resources. Together with our strategic partners, we can quickly deliver a range of managed network solutions -- from IP convergence, enhanced security and virtual

- private networks (VPNs), to distributed, edge-of-network server and storage computing environments and other next-generation network applications;
5. IBM Output Management Services provide managed supplies and support for printers, fax machines, copiers, scanners, and multi-function devices, saving clients up to 20% on the management of these peripherals;
 6. With End User Support Services, IBM provides a full range of end user training, and self services support, including an innovative self-enablement portal, plus help-desk, on-site support, and backup and restore services all designed to provide an efficient, security-rich end-user experience; and
 7. Applications on Demand is a fully-configurable set of usage-priced application hosting services. This helps to improve the return on investment by reducing up-front project and infrastructure costs.

Most recent analysis suggests that IBM has expanded its global delivery. Performance highlights include:

- 49% global delivery supply growth;
- 35% global delivery consumption growth; and
- Opened Global Delivery Centers (GDCs) in Vietnam and Chengdu, China in addition to India, Romania, Egypt and Argentina.

(Source IBM W3 Intranet <https://w3-03.ibm.com/services/bcs/competency/grportal/ecard/global_delivery.htm>)

The CIO's report "**Offshore Outsourcing and Economic Recession Impact on Global Indian and European Outsourcers**" [13] indicated that Accenture's outsourcing revenues were up 15 percent year on year and its outsourcing bookings were at their highest in more than four years. On its guidance for 2009, Accenture expects to improve its outsourcing profitability. IBM's strategic outsourcing business grew 8 percent last quarter in 2008, fuelled by 21 percent growth in revenues from growth markets. However, long-term signings continued to fall. Going forward, IBM expects similar growth in the next quarter. HP's outsourcing revenues grew 15 percent. While not specific to outsourcing, HP was candid enough to say that they are expecting the market to be challenging in 2009." CSC's outsourcing revenues increased 6 percent in the last quarter, and doubled its new order bookings. However, it reduced its onshore headcount by 2,300 and increased its Indian headcount by 3,000.

Overall, despite the recent financial crises in 2008 Q4 and potential global recession, the global outsourcers seem to be in fine shape, and major service providers are not too worried about the future. Headcount realignment and higher offshore mix are being evidenced.

According to CIO articles "**Quantifying ROI**" [12], several surveys indicate that 17 percent to 53 percent of customers have not realized business value/return on investment from offshore outsourcing. On the other hand statistics suggest significant benefits. However, there are customers who have not realized tangible business value from offshore outsourcing. The article referred to Sathyanarayan, author of **Offshore Development and Technical Support**, who stated that "Proven Strategies and Tactics for Success, says that even if offshore personnel are as competent as the local staff—which is the best case

scenario and unlikely to be the case when you are getting started, there will be a productivity loss because of systemic issues.” Cost, quality and time are the typical parameters used to define success of an offshore outsourcing project.

1.1.1 IT outsourcing background

Strategic Outsourcing is the management of information technology (IT) systems. Service providers such as IBM manage and operate other company's IT systems under a mutually beneficial agreement. The outsourcing agreement may include the transfer of IT employees and IT assets to IBM. IBM provides service level assurances to ensure the quality of service is attained and measured. Services clients expect innovation and value from their business relationship with IBM. Improving client base value and nurturing long-term strategic relationships are vital to these IT service providers' competitiveness.

IBM's legacy as an outsourcer is not without its problems. As the new crop of offshore providers emerge, IBM is being perceived as an old-school provider, with capabilities limited to traditional IT outsourcing. For that reason, prospective clients may incorrectly assume that IBM does not offer newer options like business process and application outsourcing, or remotely managed security and network solutions.

Wipro's top Indian outsourcing competitors, Infosys and TCS have changed the outsourcing business model. While they lack vertical expertise, high-end capabilities and the ability to execute large outsourcing projects on their own, their low cost/high quality delivery model increasingly gives them a strong foothold in deals where price is a leading concern. These providers are looking to expand beyond current service areas to provide total outsourcing services in more high-skill areas. They target strategic accounts with low entry offerings and then mine the accounts to expand their impact.

Indian outsourcing firms are making headway around the globe and already have a presence in many IBM accounts. They have become increasingly sophisticated about using technology to achieve lower costs and better services for customers. However, employee turnover can be an issue. Whereas the call center workforce in some areas of India has experienced annual turnover rates of 50 to 100 percent, the annual turnover rate at software firms such as Infosys is a relatively low 10 percent.

- IBM Global Business Services will increasingly use Global Delivery to leverage worldwide talent and optimize on cost without compromising on quality;
- IBM's Global Delivery Centers-GDCs in Asia, Africa, Europe and Latin America provide a backbone to IBM worldwide delivery capability. Combined with local and near-shore operations, the GDC mix enables IBM to deliver leading edge, end-to-end business and IT solutions at competitive rates;
- With multiple Global Delivery options now available to clients, solutioning and local proposal teams need to have the ability to determine the optimal Global Delivery Centers where the work can be performed. A range of factors like GDC scale, leadership, customer requirements, data privacy, maturity, cost, technical and language capabilities determine the Performing Country site;
- Language is one of the key determinants of where work can be performed, plus it is one of the key differentiators of IBM over the competition. This is particularly relevant from a customer perspective as language and culture are often associated, and culture is recognized as one of the common 'issues' in GD projects. Our IBM language capability, both with local teams and GDC teams allows us a far greater

scope of work provision. We have many niche language capabilities (e.g. Vietnam or Romania for France demand, China for Japan demand); and

- If the customer language capabilities do not exist within a GDC, then the solution itself needs to be examined to make allowances for the need for either a differing mix of local vs. remote resources, or provision for certain extra skills / tasks such as translation services.

Request Type	Experience	Skill	Language	Lead Time
Offshore	Any	Hot skill *	Any	6 weeks
Offshore	>18 months	Common	English	4 weeks
Offshore	<18 months	Common	English	1 week
Onshore	Any	Any	Any	12 weeks

Table 2: GR Skill set availability

Source: IBM Global Consulting Service library *

Recent analysis in December 2008 based on the IBM Professional Marketplace database (i.e. IBM global resource management system) suggested that IBM has increased GR demand. Approximately 84 percent of the demand was directed to India. Other IBM global delivery centers have demonstrated significant growth. IBM Professional Marketplace internal system (<https://w3.ibm.com/services/tools/marketplace/>) is the corporate IBM system for managing resource assignments and demand.

Table 3: Resource demand for IBM Outsourcing support services globally:

GR Provider Country Dec 21, 2008

Country	# of resources	% Distribution
India	7608	83.96%
China	601	6.63%
Brazil	360	3.97%
Argentina	237	2.62%
Philippines	82	0.90%
Vietnam	64	0.71%
Mexico	49	0.54%
Others	2	0.02%
Romania	42	0.46%
Belarus	7	0.08%
Egypt	8	0.09%
Slovakia	1	0.01%
Total open seat	9061	

Source: IBM Professional Marketplace internal system

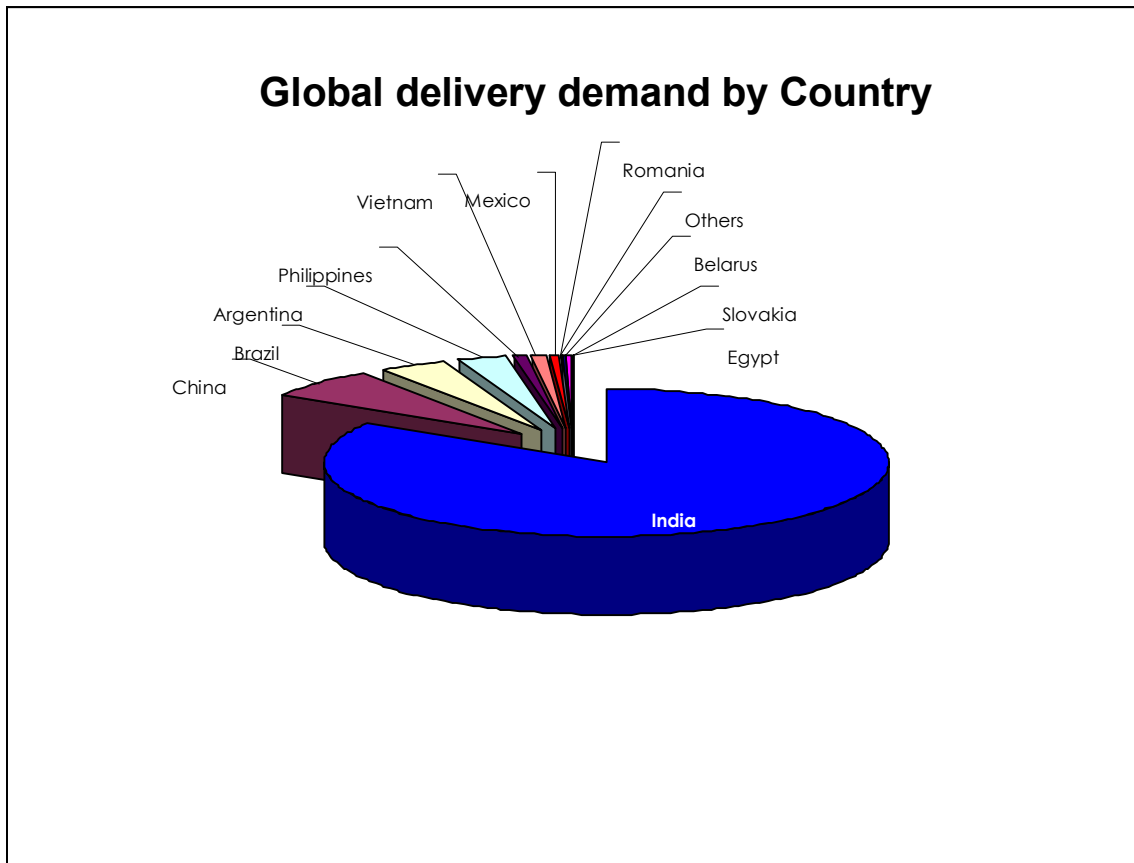


Figure 2: Resource Demand of GR Providers

Source: IBM Global Assignment management System

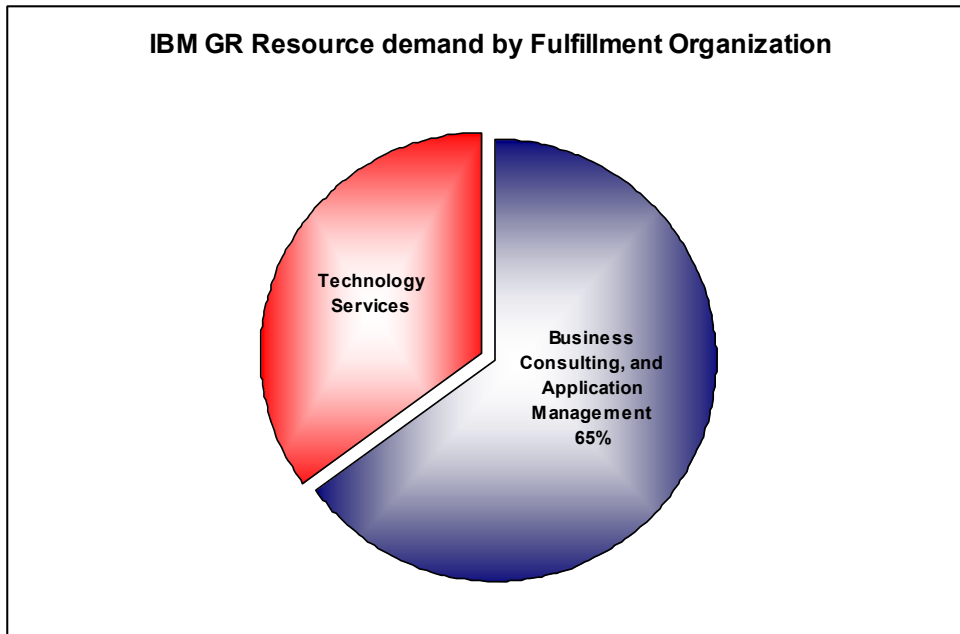


Figure 3: IBM Resource Demand by Fulfillment Organization

Source: IBM Professional Marketplace internal system

1.2 Research Purpose

This applied project study will examine IT strategic outsourcing and the impact of the increasing demand on global delivery. The research will assess the benefits and impact on the level of service, technology and infrastructure, human resources, culture, communication, operations, and client relationships.

The research will assess various factors and related new trends that global organizations would have to consider and adopt strategies to mitigate the impact.

2 Research Questions

The following are questions that will trigger the analysis and conclusion of the study:

- What are the strategies IT global outsourcing organizations would adopt for managing communications in physically dispersed organizations?
- What is the impact of cultural differences in offshore outsourcing organizations and how does this reflect on execution of services and projects?
- How will IT outsourcing and global delivery evolve and how will service provider organizations be prepared for this evolution and risks?

Strategic outsourcing service providers such as IBM will have to adjust their governance system. The following questions will help the analysis to touch on the impact at a lower level.

- What is the impact on work structure and team design?
- What is the impact on work relationships (e.g. Co-worker relationships in virtual communities, program and project organizational structure, governance, and client relationship management)?
- How will communication techniques and strategies change due to virtual communities?

3 Literature Review and Review of Related Theory

The IT outsourcing globalization industry trend and growth will require consideration to address the following:

“Cross-cultural adjustments in management techniques, communication and team building”, Grisham and Walker identified five dimensions of cross-cultural leadership intelligence to function effectively in any culture. There are globally viable, cross-cultural leadership skills that include trust, empathy, transformation, power, and communication.

As Grisham and Walker [9] indicated in their research, **“Coping with cross-cultural team work”** falls within the "soft" skill area, a necessary PM skill through amongst other things, rethinking the set of PM deliberations and research projects.

The research was based on globally viable, cross-cultural leadership skills (trust, empathy, transformation, power, and communication). It was indicated that project and business management experience lack a consistent approach to the training of resources in global organizations.

Grisham et al indicated that there are no shortages of cultural training programs in existence, and certainly no shortage of leadership and cultural theories. Their research provided a simple model for cross-cultural leadership that can be used for evaluating and improving leadership skills, resulting in improved performance. The model provides a simple outline of leadership attributes that can be utilized to structure assessment and training for project managers in a consistent and structured way. For the model, it does not matter if the project manager was born in China and raised in the USA, or born in the USA and raised in Japan since it is a universal template. So training for leadership skills in any geography can be structured in the same way, with the emphasis on the Cross-cultural Leadership Intelligence (XLQ) dimensions.

Grisham and Walker's thesis was undertaken as part of the DPM program at RMIT University. Its reach, and the reach of PM, has much wider application in international business.

Since global delivery showed an upward growth trend, geographically distributed teams have become crucial, yet a significant number fail to accomplish their objectives. Long distances and cultural differences affect performance and compromise working relationships, communications, trust, accountability, organization, individual contribution, and thus productivity.

As Jaikumar Vijayan highlighted in **“Offshore Outsourcing Survey Looks at Impact of Cultural Differences”** [30], companies that are globalizing their operations or outsourcing work to offshore locations shouldn't overlook behavioural and cultural differences when developing their security risk-management plans, according to a survey of IT managers and end users in 10 countries that was released by Cisco Systems Inc in October 2008.

The survey results show that employee behaviour can vary by country and culture and have a direct bearing on the threats posed to corporate data. "As organizations globalize and move into new regions that they haven't worked in before, they really

need to understand the cultural differences in order to implement an effective data protection strategy" said Marie Hattar, Cisco's vice president of network and security solutions.

Offshore Outsourcing Survey Looks at Impact of Cultural Differences" [30], was conducted for Cisco by Insight Express LLC, a Stamford, Conn.-based market research firm. A total of more than 2,000 people -- about half of them IT decision makers—were polled in the U.S., the U.K., France, Germany, Italy, Japan, China, India, Australia and Brazil, Cisco said.

Many of the countries haven't experienced the same level of worm mass mailings, denial-of-service attacks or other IT security threats that companies in the U.S have been dealing with for years, Marie Hattar, Cisco's vice president of network and security solutions said. As a result, she added, there sometimes appears to be more tolerance in other countries for end-user behaviour that would be considered risky in the U.S.

For example, about 64 percent of the IT decision makers surveyed in China and nearly half of the ones in Brazil said they thought that employees at their companies allowed outsiders to use corporate laptops and mobile devices without any supervision.

Meanwhile, 39 percent of the end users polled in Brazil and 20 percent in India admitted to sharing sensitive information about their jobs with family members and friends; another 8 percent and 7 percent, respectively, said they had shared such data with absolute strangers. In contrast, the number of respondents in the U.S who acknowledged that they had done the same things was 16 percent and 2 percent. In a majority of the cases, the survey respondents said they discussed sensitive information with others because they wanted to bounce an idea off of someone, or just vent.

Compared with workers in other countries, a significantly larger proportion of end users in China (42 percent), Brazil (26 percent) and India (20 percent) altered the security settings on their company-issued laptops. Just 2 percent of those surveyed in the U.S. said they had done that. Similarly, more than 60 percent of the workers surveyed in Brazil and China said they had transferred company documents to and from their home computers while working remotely. *"You need to better understand the dynamics of the country you are doing business with, and ensure that your policy is localized"* says Hatter.

MANAGING GLOBAL TEAMS

Dash, et al in their research **"Managing Global Design Teams" [16]** discusses the technological, organizational and personal issues related to geographically distributed teams. Geographically distributed delivery resources have become a consistent part of delivery models, yet many fail to accomplish their objectives. There are many reasons including long distances and cultural differences compromised work relationships, communications, trust, accountability, organization, individual contribution, and finally productivity. The paper analyzed eight teams in the high-tech industry and analysed the common findings (issues and problems). The findings were categorized as technological, organizational and personal.

The research analysed Traditional vs. Virtual Teams. As the use of information and communication technology in organizations has taken a globalization approach and

new ways of work management and structure, the number of e-workers and virtual workers has increased. The traditional team was defined as "A team is a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable." The makeup of the traditional team is largely based on the team-building pyramid.

In the traditional team, trust opens the doors to communication, innovation and cooperation, and the retention and achievement of a common goal. Positive, helpful communication saves time, improves morale, and helps teams work together. Individual contribution allows teams and individuals to innovate, solve problems, brainstorm, and think laterally.

A virtual team is defined as "a collection of individuals who are geographically and/or organizationally or otherwise dispersed and who collaborate via communication and information technologies in order to accomplish a specific goal." The research defined a Geographic Dispersed Team (GDT) as a team in which members work for the same company on a specific function but are geographically dispersed, culturally diverse, and share responsibility for producing deliverables within time and resource constraints.

The research concluded the study and recommendations. It is important for managers to consider the strategic implications of creating a virtual team. The recommendations of this research suggested radically different work environments for global team members and their employers.

Observations from all cases support a hypotheses on how team size and dispersion affect team performance. Smaller and tightly grouped teams have higher rates of success. Larger, globally dispersed teams are beneficial in cases where deliverables for each team member are clear and defined.

Design teams require comprehensive communications and lot of interaction, which makes it difficult for a team that is dispersed. The more teams get more widely dispersed; the communication channel grows wide and complex. Well established processes ensure smooth functioning of the team. Unless processes are well developed, it is not advisable to opt for a distributed team. Well defined and established governance models and processes should be well implemented to allow this team structure to deliver performance.

The traditional team pyramid defined on the research includes the elements of trust, communication and individual contribution. The research added "Accountability" and "Organization" as additional layers that affect globally distributed teams:

- Accountability helps build trust between team members, encourages them to communicate and to commit to working toward a common goal; and
- Organization defines individual roles and responsibilities, and defines the relationship between team members in a way that encourages them to achieve common goals.

The research recommended reconfiguring the traditional team structure to a new global team structure. It also confirmed communication as a key factor in leading teams with different cultures. It also enforced that leadership should provide a clear definition of roles and expectations for all team members.

Leaders must provide visibility on each team's achievements. The team and other entities affected need to be aware of the contributions and achievements of each virtual team through actual measurements.

The recommendation also elaborated on the importance of training. Continual training and follow-up coaching are essential in achieving mutual understanding and trust. Managers should do away with the old ways of controlling or monitoring employees. Trust remains invaluable for the success of virtual teams. For geographically disbursed teams, collaboration systems are critical. Team members should maintain cohesion and a sense of identity through communication tools and systems while keeping an open mind for everyone's thoughts and building trust.

To help build trust, team members must communicate social and emotional information-not only task-related information. The cost of technology remains an obstacle, especially in the prevailing global economic climate. Using virtual teams far outweigh the cost, and at minimum organizations can take advantage of low-cost technologies such as Instant Messaging systems.

"Offshore Outsourcing: Quantifying ROI" [12]: The article highlights background information about statistics that say offshore outsourcing reduced costs by 50 percent, reduced the number of defects in production by 25 percent, reduced the time to launch an application by 40 percent and so on. However the main question about off-shoring, is does it truly save costs and improve delivery performance?

The analysis continues setting some grounds to examine these statistics. To build the business case for offshore outsourcing, the most common comparison is between onshore and offshore delivery projects. Analysis reveals some of the most common mistakes using the same headcount number in both cases. Onshore projects are expected to utilize fewer resources because of reduced activity level in knowledge capture, knowledge transfer, project co-ordination and environment support. Then there is the productivity factor. On the other hand, in the case of off-shoring, more resources will be required for the same project for knowledge transfer, communication, co-ordination locally and remotely, etc.

In **"Hidden Costs Impact Value in Outsourcing"** highlighted by Kaushik 2008, article [12], the authors Whitfield and Joslin stated that potential outsourcers in all industries commonly assume that outsourcing can be initiated immediately, and the outsourcing service providers will absorb limited up-front costs before large savings can be realized. The research indicated that in reality, 10 percent to 15 percent savings is more realistic for highly commoditized service areas, and 40 percent to 50 percent savings can be achieved only in optimal circumstances.

The following are examples of hidden costs:

1. Hidden cost of work retained onshore, internally. When organizations outsource the work and hold onto some percent of the work, the company would overstate its business case.
2. Hidden cost of internal, transitional headcount. Companies usually wouldn't account for the costs of employees who help in the transition.

3. Setting up (initial knowledge transfer, training, retraining et al) and managing the offshore outsourcing engagement (governance system, additional personnel, management time) is another hidden cost.

Henderson, (Jun 2008) [13] examined the “**impact of Project Managers' communication competencies in virtual team environments.**” Communication management is one of the most critical project management areas. The barriers introduced due to virtual teams in global delivery raise the need for a refined pattern and governance to accommodate the distance, team structure, language barrier, and time zone difference between team members.

The article continues to establish the importance of communication in the management of projects. However, little is known about the behavioural aspects of project managers' communication competency especially as they relate to crucial outcomes in virtual environments. The article reports on a survey-based research study of 564 respondents from the Chief Project Officer Web site that validates and extends a research model of project managers' competencies in communication, the satisfaction and productivity of team members, and the degree of globalization in their projects.

The findings indicate that project managers' competencies in decoding and encoding communication significantly contribute to team member satisfaction and productivity. Geographic dispersion plays a significant role in how project managers' competency in decoding and encoding communication impacts team member satisfaction and productivity.

Goby's research **Business Communication Needs: A Multicultural Perspective** [8] referred to Rogers (1999) illustration that nowadays virtually all business communication is international in some sense and that teaching material must represent the challenges of cross-cultural and cross-border exchanges that students can expect to face at work. This is essential for successful cross-cultural training.

As per Elmore, Barbara 2006, “**It's a SMALL world after all**” [7], she indicated that new technology will improve virtual teams and can make them work well, said Dorothy E. Leidner in the same paper. This “Baylor Business Review” highlights the issue of virtual teams and knowledge management which as indicated in their research, is very important particularly in a large, physically dispersed organization.

Dorothy E. Leidner, professor of Information Systems and a 12-year veteran on the subject of virtual teams. Leidner collaborated with Baylor professor Tim Kayworth to examine how leaders of virtual teams can be effective. Kayworth, Leidner and others are using information and communication technology to also study knowledge management. Knowledge management is important particularly in a large, physically dispersed organization, Kayworth said.

The paper presented a study of a large global American telecommunications organization and five Korean organizations using virtual teams' structures shows that conference calls were used most often by team members, followed by web collaboration tools, e-mail, voice mail, video conferencing, fax and telephone.

The paper referred to Wakefield, who noted that conflict among team members is likely to be amplified in heterogenic settings, in which social and work culture, language and even time zones are contributing factors.

Social cues that guide people in face-to-face communication are lacking in virtual team communication, Wakefield noted. The analysis identified task conflict, relational conflict and process conflict among the virtual teams. It was observed that effective leadership and better team performance resulted when team leaders took on the roles of facilitator, mentor and coordinator. Leaders must use information and communication technology to study knowledge management. This can be described as preserving a company's institutional history, managing intellectual capital and sharing insights among all members the organization. Information and communication technologies are providing organizations with better ways of managing their knowledge. A Knowledge management system would include database repositories, where employees share best practices information; and intranet portals, or team rooms, where employees can share information on a particular subject. Researchers are finding that employees must have a motivation or incentive to share best practices.

"We found that you can put a knowledge management technology into an organization, and people aren't going to use it the same. One group used it mainly to build social connections. Another group used it more for developing and accumulating intellectual capital. Another used it for collaboration and learning," Kayworth said. "Managers need to take that into consideration. It may have implications in how they design systems and train people."

The research also showed that the technology used to manage knowledge must fit the culture of an organization. *"Knowledge management is important particularly in a large, physically dispersed organization," Kayworth said. "If you are a global internet consulting company and have people with insight into a particular project, the firm may fail to know what it knows. There may be a pocket of expertise in Australia, but in Houston, people have to reinvent the wheel. And when someone leaves the company, knowledge goes out the door."*

The new US administration brought many questions about the future of globalization and IT off-shoring. The CIO report **"What Effect Will President-elect Obama Have on Outsourcing?"**^[27], provides coverage to this issue and highlights the possible outcomes. The new American president will need to come up with breakthrough programs and polices similar to FDRs to stabilize and turn around the United States economy. The greed and corruption in the 1930s banking system led to the formation of the FDIC and SEC. The new president will need to put governance systems and agencies in place to make sure a financial crisis like we are witnessing since late 2008, will not occur again. The article is questioning what effect will President Obama have on off-shoring and global outsourcing?

The report highlighted the fact that Mr. Obama will have so many large-scale issues to deal with that it is unlikely that outsourcing is high on his priority list. The global delivery countries have evolved far beyond their initial business models, which relied so heavily on bringing people onsite in a staff augmentation mode. The foundation of off-shoring IT services companies is no longer just providing labour arbitrage. Well established business models and services are now based on productivity increases, faster time-to-market of

products, quality improvements, intellectual property, and so on. The study indicated that no impact on global delivery will be observed since the new President would have to deal with other serious priorities other than global delivery resources coming into the U.S. for training or joining delivery teams.

U.S. companies are driven by the fundamentals of capitalism, free-trade, and competition; these same drivers of American business created the outsourcing market in the first place. Obama's administration will not have the time and capacity to look specifically at any large-scale policies on outsourcing. They have larger battles to fight. The article confirmed the expectation that the U.S. President can greatly impact the outsourcing and global delivery by addressing the economic crisis in the world.

The "**Offshore Outsourcing, A Risk Management Perspective**" [11] brings new risks that should be considered during the decision making process. The Offshore Outsourcing: A Risk Management Perspective article presents a new perspective on off-shoring risk.

In a global delivery organization, managing people, processes and technology properly to address risk is major consideration. The article summarized risks associated with outsourcing that will need to be addressed by global service providers. These risks include:

Political and country risk: the political position and stability of global delivery providers are a major risk that should be considered and managed. Any change in political climate or society will have a direct impact on the delivery process, availability of resources in these countries and will affect plans, schedules and service level agreements. It will be necessary to examine the political environment of the service provider's country.

Cultural risk includes language differences, varying communication protocols, differing work ethics, and cultural norms. The behaviour of people due to their culture is a risk that may lead to unexpected results in various geographies. Team members may misunderstand each other which may cause errors and issues. This type of risk was not of any consideration with the traditional outsourcing.

Contractual risk: if contracts are not specific or flexible enough to accommodate changes in the business environment or regulations in involved countries, this will be another risk for global delivery organizations. The viability of enforcing the contracts if the service provider is in a geographic dispersed location may raise issues.

Operations risk such as service quality, cost overruns or business interruptions. Information security risk and compliance risks are a type of risk that is not unusual in outsourcing, however in global delivery the impact is more significant and mitigation plans are different.

Compliance risk: the sanctions and/or material loss of any kind that any organization may experience if it fails to comply with the set of laws, industry standards and internal requirements that govern its environment/sector. For the purpose of this definition, reputational risk is considered part of material risk. (Source mentioned in **Offshore Outsourcing: a Risk Management Perspective**" CIO article [11]: Basel Committee on Banking Supervision — April 2005).

Geographically disbursed delivery organizations will experience additional complexity in managing business continuity and disaster recovery due to multiple locations used by virtual teams. Business Continuity Risk: the risk associated with a global organization's ability to recover and/or restore interrupted critical function(s) within a predetermined time after a disaster or extended disruption is a major consideration.

The article elaborates on outsourcing and explains the lifecycle's four overarching stages, each with its own series of actions. The outsourcing life cycle is composed of Preparation, Implementation, Operation and Review. The outsourcing begins with strategy development where senior and business management evaluate and determine the business case and whether it will be profitable for the organization to outsource, off-shore outsource or create an off-shore captive centre. The business defines the governance and a strategic steering committee to manage the initiative, develops an outsourcing Project Management Office (PMO) governance office to operate the exploratory initiative, and determines which business/IT functions or service would be profitably outsourced, off-shore outsourced or managed by an off-shore captive centre.

The article concluded that information security has a significant contribution to make to this outsourcing/off-shoring lifecycle. It is critical to performing risk assessments to address confidentiality, integrity and availability of information assets to be outsourced, analyzing the security controls of the service providers and performing site audits of the selected service provider's security control environment. Tracking and control are essential for the outsourcing. An organization should ensure processes for incident reporting, management and ongoing monitoring for security and compliance purposes to allow for corrective actions and SLA attainment.

The article keeps focusing on security and elaborates that failure to involve information security in the outsourcing and off-shoring lifecycle may result in cost impacts for retroactive controls implementation, insufficient and non-empirical metrics and performance standards, dispute over intellectual property ownership, lack of control on the service provider organization or 3rd party involvement, difficulty managing cross border data flow issues, and inadequate security of intellectual property.

"Organizations need to be prudent in their pursuit of cost savings and efficiencies. The strategies that maximize profit must include risk management and compliance components. Senior management needs to ensure that the potential benefits associated with outsourcing are balanced with the costs associated with risk management. Including security and compliance considerations into the outsourcing lifecycle will ensure that the pitfalls outlined above are avoided."

Mahalingam (May 2007) [15] presented the growth and position of TCS as one of the top global delivery organizations. Annual revenues crossed the \$4-billion mark which is an incredible billion dollars a quarter, making TCS the 11th largest player globally. In terms of market capitalization, TCS is ranked 4th globally among companies such as IBM and HP.

This is an example of the growth of global delivery and the stability that outsourcing service providers have established in the past few years. TCS has demonstrated strength and weakness.

STRENGTHS:

- **Scale:** 89,000-plus employees. TCS today is among the top five companies worldwide in terms of headcount;
- **Global:** acquisitions in the UK, Chile and Australia and its Chinese joint venture, TCS is better placed than many of its Tier-I peers when it comes to a global delivery model;
- **Emerging service lines:** global consulting, Infrastructure management, and assurance services fetched 18 per cent of revenues in Fiscal Year 2007 up from 10 per cent in the previous fiscal year; and
- **Product focus:** an example of this is that its acquisition of FNS plugged a hole in its banking services offerings by acquiring a core banking solution.

WEAKNESSES:

- TCS not listed internationally: the only Tier-I Indian player that is not listed in the US;
- Branding: Compared to Accenture or IBM, TCS is not yet a well-known brand;
- Investor relations: TCS has come a long way. There's a lot more transparency on performance, however compared to Infosys, TCS is still a notch behind; and
- Margins: TCS' margins are smaller given its huge revenue base.

Sarkis et al (2007) aimed, in their research "**A strategic model for agile virtual enterprise partner selection**" [24], to provide a model that can be used to help virtual enterprises. Their model integrates many factors, tangible and intangible, strategic and operational, for decision-making purposes.

In 1950s and early 1960s, management theorists proposed decentralization of large organizations in order to better manage the workplace. Subsequently, in the 1970s, more firms disaggregated their operations. This finally led to the development of the Agile Virtual Enterprise (AVE).

The results provided a robust model that can facilitate the decision making process in agile virtual enterprise organizational structures. The paper introduces a conceptual model with an illustrative validating example. Analytical Network Process (ANP) can require significant managerial input for its application, potentially causing fatigue for decision makers. Practical implications include a partner selection tool and framework. This work expanded the number of factors and interrelationships among these factors that other models have not addressed for the agile virtual enterprise structure.

The formation and management of supply chain organizations is critical to this environment. To form an Agile Virtual Enterprise (AVE), a number of factors need to be considered. The factors need to be organizationally focused, and include both strategic and operational levels of analysis, along with tangible and intangible measures.

The research developed a framework and methodology for Agile Virtual Enterprises (AVE). The proposed model is based on the Analytical Network Process (ANP). The tools and methodologies proposed in this paper help industries, managers, resource managers and other involved stakeholders to develop a toolset to improve the management system. The methodology and model have demonstrated some

disadvantages, as the questions that need to be answered by the decision makers are too many.

The proposed technique demonstrated another limitation. The final solutions may not be clearly defined, so secondary and multi-phased approaches may be needed to incorporate secondary criteria. Given the limitations and managerial implications, there are a variety of extensions to this model that can be considered as future research.

1. The sensitivity of the weights at various decision-making levels needs to be investigated, i.e. how the variation in these weights affect the final outcome of the process?;
2. A more comprehensive set of factors needs to be considered in an actual application of this methodology. Specific inter-organizational compatibility criteria (e.g. trust, time to form partnership, communication relationships, and technological standards) can be investigated; and
3. Consideration needs to be given to ensure that participants in the AVE receive fair, impartial and adequate distribution of tasks and revenues.

The methodology's relationship and role within a broader AVE formation life cycle from market opportunity identification, partner evaluation, partner selection, AVE operation, to AVE dissolution, can be investigated.

The CIO report "**How to Say No to Outsourcing**" [20] indicated that in 2005 alone, 47 percent of companies have prematurely ended an outsourcing arrangement. This was based on a research by Diamond Management and Technology Consultants. Forty-three percent of them brought the work back in-house.

"Outsourcing, onshore or offshore, if not done right or done for the right reasons, can tip things the wrong way," says Chris Jones, principal of consultancy Source Renaissance. "It can have negative effects on IT, on the business and, ultimately, your customers."

In order to create outsourcing strategy it has to align with the business strategy, and be diligent in assessing the costs, service levels and other factors necessary to make informed decisions between sourcing options. *"These outsourcing decisions are still going to be made," says Gartner's Anderson as mentioned in the CIO report. "But you can at least force the business to take a breath. When these mandates come down, you'll at least have some initial argumentation. Worst-case scenario, if the decision proceeds, you have all the data to do a baseline comparison to what the provider is pitching you."*

The report indicated that investing time and money in a detailed examination of sourcing options can partially attract decision makers toward outsourcing. *"There's a certain momentum to the process and some may feel the obligation to follow through and set up an outsourcing relationship," says M. Kaplan, managing director of consultancy ThinkStrategies " Overby 2006 [20], "But it's a healthy exercise and can be successful even if you don't end up outsourcing anything. It's best seen as an opportunity to evaluate internal requirements and external opportunities."*

A good sourcing strategy should be revisited at least once a year as recommended in the report. *"You need to keep an eye out on a continuous basis,"* says Kaplan. *"Your own business and the IT services market is changing so rapidly."* *"Even if outsourcing is not on the table, start building your case,"* says Gartner's Anderson. *"Not to defend against it necessarily but to be prepared to have that discussion based on a business case."*

4 Research Design and Data Collection

The analysis will focus on major issues and suggest various options. The SWOT technique will be used to support the analysis and provide the vehicle to identify the strategies and recommendations for this study. The SWOT analysis is an extremely useful tool for understanding and decision-making for all sorts of situations in business and organizations. SWOT is an acronym for Strengths, Weaknesses, Opportunities, and Threats. The SWOT analysis headings provide a good framework for reviewing strategy, position and direction. The full analysis will suggest the various strategies related to Strength/Opportunities, Weakness/Opportunities, Strength/Threats and Weakness/Threats factors.

The following are key considerations used in designing the research plan:

1. This applied project study will examine strategic outsourcing and the impact of global delivery. The research will assess the benefits and impact on the level of service, technology and infrastructure, human resources, culture, communication, operations, and work relationships;
2. The study will provide recommendations for IT outsourcing organizations that are involved in globalization. The recommendations will be based on the strategies that will be defined based on the TOWS analysis;
3. The source material used for this analysis includes background updates on the outsourcing industry, global resources trends, service offering categories, and industry governance;
4. The information is collected from various sources including, the AU Library, IBM W3 Intranet, IBM Knowledge Management system, and IT analysts such as McKenzie, Gartner, and CIO reports;
5. The study will focus on examining the documentation that is identified during the proposal phase and others that will become available during the course of analysis; and
6. The following are the sources of information and material used for the study:
 - AU Library;
 - IBM W3 Intranet;
 - Internet; and
 - AU Course material for Strategic Planning and Project Management.

5 Analysis

The high volatility of customer demand and constantly changing customer needs have placed intense pressure on IT outsourcing service providers to satisfy these demands. Organizations are faced with lots of challenges to meet customer expectations of acceptable service in a timely and efficient manner without impact on their organizations such as re-engineering or streamlining their operations to better serve their clients.

5.1 SWOT Analysis:

The SWOT analysis method is used to facilitate the examination of various factors that will define the strategies based on the strengths, weaknesses, opportunities, and threats. This analysis will suggest high level strategies that global delivery organizations would be encouraged to adopt for their success. In table 4, the analysis suggests some strategies. The following are the Strengths, Weaknesses, Opportunities, and threats that have been identified for this analysis.

5.1.1 Strengths

1. **Strong skill set and talents in Global Delivery (GD) countries.** GR countries have been demonstrating a highly educated and qualified generation. The limited career opportunities in these countries years ago encouraged young people to expand in their education to increase their changes in the job market. As a result, the ratio of highly educated and experienced resources has significantly increased. From a size perspective, IBM India comes second to the U.S.
2. **Lower cost rates for Global Delivery GD human resources.** As mentioned earlier, the rates for Indian IT skill sets is approximately 30 percent of the same Canadian or US resource. Some research suggested that although the rates are lower for resources, there are transition costs, productivity dips, management overhead, and cultural implications (just to name a few) that have to be factored into the cost-benefit equation. It sometimes can be more cost-effective to send IT work abroad, but it's not as cheap as many executives think. Overby (2007)[21] elaborated more in her article "Is IT Off-shoring Actually More Expensive Than Domestic Sourcing". The perception in the outsourcing industry and global delivery is that IT work costing \$100 an hour in the United States can be done for \$20 to \$30 an hour in Bangalore or Beijing. The truth is that no one saves 80 percent by shipping IT work to any of the GR countries. Few can say they save even half that. As just one example, United Technologies, an acknowledged leader in developing offshore best practices, is saving just over 20 percent by outsourcing to India. Review "Inside Outsourcing in India," www.cio.com/printlinks;
3. **High resource availability.** The high population of GR countries such as India, China, or Egypt and the high ratio of highly educated resources results in a huge number of skills available. As an example, TCS [15] is ranked the 5th in the global pecking order in terms of headcount with 89,000-plus employees. During the last financial year, TCS hired 32,462 people: that's 89 employees hired every day of the year, or three fresh faces an hour.

4. **Uninterrupted delivery/service time (round the clock work time).** Many service providers have established GR delivery centers that are spread across several geographies in various time-zones. Some of the service providers can demonstrate 24/7 non-stop service operations.

5.1.2 Opportunities

1. **Increasing market demand.** Most IT executives are following the investment of the global service providers which are flowing offshore. All signs point to global delivery. Industry decisions will be driven by cost savings. In India, as an example, clients get highly qualified support from people who cost one-quarter to one-third of the equivalent skill-set in Canada or the U.S.
2. **Technology breakthrough.** A few years ago, when work was provided from global delivery countries, communication lines and bandwidth availability were a major challenge. A huge investment was required to overcome these barriers. With the ongoing progress of the network engineering, communication technology, and infrastructure engineering, the Internet has made remote locations a non-issue.
3. **Increasing interest and recognition by client** organizations. Since 2002, global delivery conditions and characteristics have evolved. More work has been transitioned to global delivery countries.
4. **Cost savings:** In India, as an example, clients get highly qualified support from people who cost one-quarter to one-third of equivalent skill-set in Canada or the U.S. However, a recent whitepaper "Offshore Outsourcing: Quantifying ROI " [12] by a leading offshore outsourcer, in collaboration with a top tier industry analyst, reported that their return on their outsourcing model takes into account benefits from cost savings, efficiency gains and revenue improvement. The bulk of the benefit actually comes from revenue improvement rather than tangible cost savings.

5.1.3 Weakness

1. **Communication lines and Network** bandwidth limitations. Despite technology advancements, network bandwidth and disk space are some of the potential technology inhibitors. In addition to the technology inhibitors, communication of virtual teams brings more requirements for collaboration systems and tools to address the impact of distance and culture on communications;

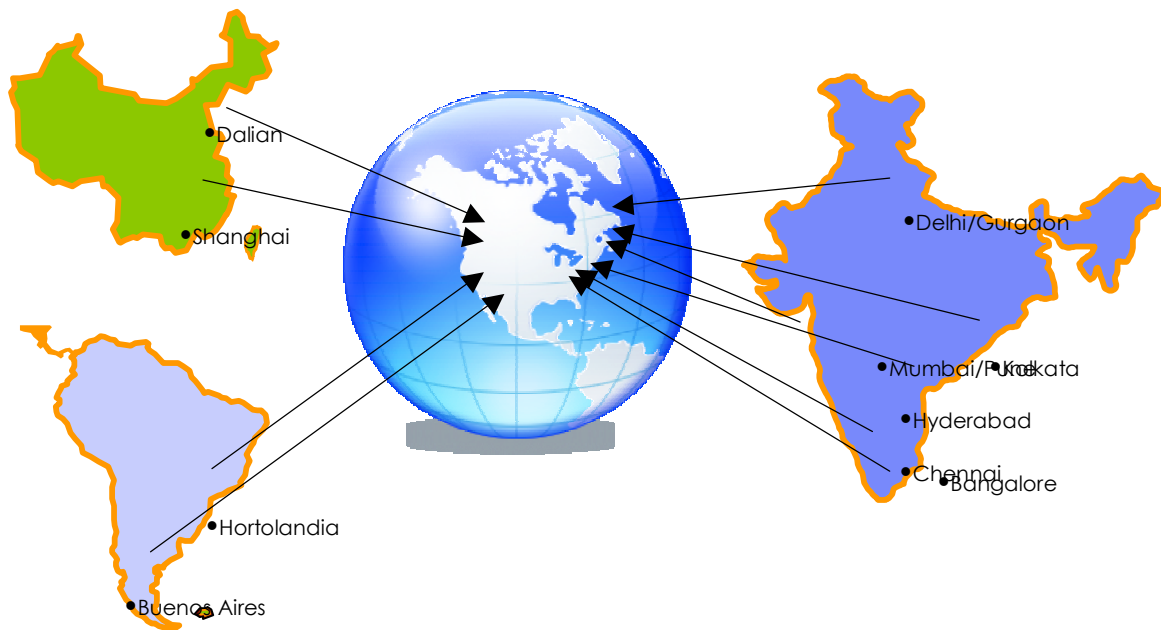


Figure 4: Network Infrastructure for Off-shore communication

2. **Culture and language challenges.** Culture, enabling or disabling, can impact everything in an IT organization, from recruiting to productivity to job satisfaction to retention. In this evolving GR model, many resources reside in their geographies without much opportunity to exchange other's cultures of those receiving their services. If we take IBM as an example, it has active global delivery centers in many countries such as India, Romania, to South American countries such as Argentina, and Mexico.
3. **Time-zones of various teams.** Although the time zone difference of various global delivery countries are considered an advantage to provide a non-stop service or support, the communication between teams across time zones is a major factor that would affect life style. Some project meetings will take place at 2:00 AM in NA which would be 2:00PM in India or 6:00 AM in Romania. This will cause social impact and will require an adjustment for communication management. Work-life balance for local management will also be affected.

5.1.4 Threats

1. **Slower economy:** a new report by Gartner predicts the current economic slowdown will accelerate the off-shoring of IT jobs to countries such as India. In the CIO report "**Gartner Economic Slowdown Will Accelerate IT Job Off-shoring**" [23], Gartner notes that many U.S. companies are taking steps to speed up their off-shoring programs in order to contain their labour by sending more of their IT jobs offshore. In the worst-case scenario, the slowdown will turn into a prolonged recession that will indefinitely delay non-critical projects and lead to enhancement and innovation projects being cancelled, Gartner says. Gartner in

the same report highlighted those global delivery countries such as India which have been losing some of their lustre as an offshore destination because of rising wages, which have recently seen annual increases between 10 to 15 percent. However, even with the increasing wages in global delivery countries, IT is very valuable asset to offshore. "Additionally, says study author Allie Young, employing an Indian IT worker costs about a third of what it costs to employ an American IT worker.

2. Competition: Gartner, in it's recent report, recommends that companies considering off-shoring work to India either look at branching out their off-shoring facilities to more countries, or that they negotiate multiyear annuity-based outsourcing contracts with vendors that let them raise rates by between 3% and 5% per year to account for employee salary increases.
3. Technology Change: The technology breakthrough and new developments provide much better facilities and capabilities than were available a few years ago. Network infrastructure and bandwidth capabilities have evolved to provide capabilities to handle network traffic and data transfer. Storage media and server consolidation technology add more capacity and space to manage data globally.
4. Local resource instability and low motivation: The more organizations increase global outsourcing, the more IT resourcing in North America and Europe will experience rising anxiety and lack of motivation. As organizations increase transition rates to GR, the unemployment will be a threat which will have direct impact on performance and productivity.
5. Increase unemployment rates in receiving countries. Gartner analysis suggested that one out of every 10 jobs with U.S. based IT vendors and service providers will be staffed off-shore by 2005 as per Datz (2004) in the World Tour 2004 Report [6]. In her article "**Should IT Workers Get Paid To Do Nothing?**" [17] on December 17, 2008 - Network World, Linda Musthaler brought our attention to the jobs bank that the auto industry was forced to create in the 1980s which has provided hundreds of millions of dollars to auto workers who have been displaced by automation, so that those workers can continue to collect paycheques. Should the IT industry create a similar program? History can tell that this growing trend of globalization will impact the job market in receiving countries such as the USA, Canada, and West Europe.

5.2 Research Scope

The research questions focused on three main areas, where their impact on IT outsourcing and global delivery will be analyzed. These main areas are communication, culture impact, and potential structure. The areas of analysis will be structured to cover the three main focus areas in the following order:

5.2.1 Communication:

Communication has become a complex concept in our modern, high-tech workplace. Various organizations have established communication procedures, protocols and

programs, and communication systems. The growing use of off-shoring has increased the demand for more ways of communication, both from a technology point of view and for plans and practices.

The Stern School of Business and the Wharton School of the University of Pennsylvania survey [28] indicated that IT employees in technical job functions (e.g. programmers, software developers, etc.) where there is little customer interaction are at the most risk from global delivery outsourcing.

In all IBM outsourcing accounts where global delivery has been increasing, client facing roles showed a downward trend in client satisfaction. In some roles, IBM had to provide local client facing individuals to manage the communication between the client and global delivery teams. In the early adopter outsourcing service accounts, local project managers in Canada were positioned to represent various active projects that were delivered through teams in India, China or Eastern Europe to Canadian clients. The Stern School of Business and the Wharton School of the University of Pennsylvania survey surveyed 6,700 workers across a variety of occupations and more than 3,000 hiring managers and human resources professionals. The research looked at a spectrum of occupations, including technology.

Good communication practices help management get the outcomes they desire. Developing good communication habits takes some conscious attention, but once they become familiar, can be the secret to improving relationships, increasing productivity and advancing careers. Understanding and practicing good communication habits creates a foundation for the kind of credible and dynamic leadership sought by most organizations. The following are some basics:

Communication management techniques and strategies (change due to virtual communities)

Due to the new team structure and geographical challenges for communication, the use and demand on communication tools and systems has been increasing over time. Many products came to the market or have significant increase in demand. The following are some examples of communication or collaboration systems advertised to support off-shoring operations:

- Nicholson Facilitation: Certified Professional Facilitator, Meetings, Mediation and Training
www.NicholsonFacilitation.com
- Virtual Phone Service:
www.voicemailtel.com
- Web Conferencing Services: Audio and Web Conferencing with recording facility
www.GlobalConference.com
- Global Virtual Teams: Managing or Leading Global Teams
www.tmaworld.com/globalteams

- Virtual Office:
www.Qwaq.com
- Virtual Team Know-How: Resources for managing virtual teams.
www.ProjectConnections.com
- Telecommuting for SMEs:
www.ScatterWork.com

IBM has invested in collaboration tools and systems to improve its ability to manage geographically disbursed teams across the globe. IBM Lotus Sametime's reservation-less online meetings mean that a person's password protected meeting room is always ready and a Web conference can be started instantly. Meeting minutes, slides and other documents can be stored in this personalized meeting room for future use. In addition, advanced audio and video features are included, allowing people to select the collaboration style best suited for the task at hand. Once recorded, these files are saved in open formats making them easy to edit and playback.

The new IBM Lotus SameTime comes with a new Web 2.0 look and feel and a redesigned Web 2.0 tool kit that makes it easy for enterprises to build key communications capabilities into their business processes. For example, IBM Lotus SameTime makes it easy for a business to include presence, instant messaging and click-to-call features on their Website. Meeting participants with inquiries could start a conversation with one click from the Website. See the IBM Unified Communications & Collaboration link at www.ibm.com/lotus/uc2.

5.2.1.1 Impact on work relationships

Employee involvement, teams, and employee empowerment enable people to make decisions about their work. This employee involvement, teambuilding approach, and employee empowerment increases loyalty and fosters ownership. These links tell you how to do team building and effectively involve people.

Employee Empowerment: Employee empowerment is critical strategy for virtual teams. As a philosophy, it enables employees to make decisions about their jobs. Employee empowerment helps employees own their work and take responsibility for their results. Employee empowerment helps employees serve customers at the level of the organization where the customer interface exists.

Team Building: People in every workplace talk about team building, working as a team, and my team, but few understand how to create the experience of team building or how to develop an effective team. Many view teams as the best organization design for involving all employees in creating business success and profitability. Team building helps to enable the success of work teams and team work.

Employee Involvement: Employee involvement is creating an environment in which people have an impact on decisions and actions that affect their jobs. Employee involvement is not the goal nor is it a tool, as practiced in many organizations. Rather, employee involvement is a management and leadership philosophy about how people

are most enabled to contribute to continuous improvement and the ongoing success of their work organization.

Virtualization adds additional layers of complexity to the IT environment, especially with respect to discovery and tracking of resources. Effective configuration management in virtual infrastructures will be critical to operations, security and the enforcement of standards and policies in these dynamic environments.

Project Management and project structure

The role of the Project Management Office (PMO) achieves significant importance. The PMO has to ensure that the offshore program runs smoothly and also ensure that savings are generated.

- **Resource utilization responsibility:** Resource availability and utilization across projects are considered major challenges. Since requirement documents are submitted to the client, in most cases, it's not possible to manipulate resources and have them stand by until receiving the client sign-off.
- **Aligning outsourcing strategy with company strategy:** The PMO needs to have long term planning for its outsourcing strategy. In addition, it has to work towards shifting corporate attention from non-core business functions to core business functions.
- **Process Management and Compliance:** The PMO will need to maintain documented processes for managing the process delivery. Due diligence audits / reviews will be required to assess practices being conducted to ensure compliance to the processes in different geographies.
- **Relationship Management:** The PMO should map the key vendor organization drivers to escalate issues. New stakeholders are added to the project environment that will require additional communications and relationships to integrate the global resources in the process.
- **Data communication:** Optimize the communication links and distribute costs across multiple points within the client organization.
- **Client Project Manager Role:** Ensure that Project Managers are aligned to encourage them to off-shore. The knowledge and practical experience managing projects with global resources is a new experience for client organizations. Coaching and training client project managers to understand additional requirements in their roles and responsibilities
- **Client responsiveness:** Timely review and approval of project documentation and deliverables is being done by the respective project owners. The additional global delivery organizations are adding new challenges on delivery time. Client response time is one of the critical areas that would have impact.
- **De-risking strategy:** The additional risks that are added into the scope of risk management would require new strategies and techniques to mitigate these risks. Some of the risks will be the responsibility of IT executives, of the outsourcing

organization and others can be managed at each project level by project managers and sponsors.

5.2.2 Culture: Impact of Cultural Differences in offshore outsourcing organizations

Successful global out-sourcing is all about clients and service providers and within the service provider, the local team and global resources team meeting each other halfway. That goes beyond the exchange of technical skills and business knowledge. Communication and cultural awareness are key factors to maintain clarity, appreciation, productive relationships, and service high performance.

Employees' behaviour in global delivery organizations vary by country and culture. This situation has direct impact on points of view that are related to their work scope and technical decisions. Global outsourcing organizations shouldn't overlook behavioural and cultural differences of their diverse staff [30].

Employee behaviours vary by country and culture and have a direct bearing on the threats posed to corporate data. Moving to global delivery, there is a critical need to understand the cultural differences in the various delivery geographies. Cultures have an impact on the judgment of technical matters. The offshore outsourcing survey looked at the Impact of cultural differences.

Goby's [8] research presents a practical example on differences and needs. In her article, Goby presented a small empirical study of the business communication needs expressed by post graduate students in a North Cyprus university and compared it to similar studies conducted in the United States and Singapore. The findings reveal that there are differences between the needs expressed by students in these different countries. In addition, the multicultural environment of the North Cyprus University studied suggests that multicultural interaction increases a students' sensitivity to the need for a non-ethnocentric approach to international communication. The findings also indicate that respondents in multicultural settings may be more inclined to engage in groupthink because of their heightened awareness of cultural differences and their wish to avoid conflict.

The culture impact survey [30] compared workers in several countries, where a significantly larger proportion of end users in China (42 percent), Brazil (26 percent) and India (20 percent) altered the security settings on their company-issued laptops. Just 2 percent of those surveyed in the U.S. said they had done that. Similarly, more than 60 percent of the workers surveyed in Brazil and China said they had transferred company documents to and from their home computers while working remotely. This proves the variance in standards across different cultures. Similar signs were observed when IBM India project managers reported on issues and risks. Their judgement was very different from North American clients and local IBM project managers. Culture has an impact on the judgement of people on issues and actions.

5.2.3 Growth and Structure:

5.2.3.1 Managing Risk and Planning for global outsourcing growth

Global delivery and off-shoring is adding new risks that outsourcing organizations should establish risk management plans to address their impact [11]

- **Political and country risk:**
Since a significant portion of the IT service is outsourced to global delivery countries, these countries' political stability and environment will impact their continuity and productivity. The political position of these countries will be also a factor that may have some consideration with regard to security. It will be necessary to examine the political environment of the service provider's country.
- **Cultural risk:**
Culture risk is introduced with language differences, varying communication protocols, differing work ethics and cultural norms. Organizations may be vulnerable to different types of ethics associated with information sharing.
- **Contractual risk:**
Governing rules are not country specific and contractual conflicts are not dealt with through the local judicial system. If contracts are not specific or flexible enough to accommodate changes in the business environment, the organization may face conflicts and risks.
- **Operations risk:**
Organizations face the risk of sub-par service quality, cost overruns, business interruptions, and Information security risks.
- **Compliance risk:**
This risk area will include the sanctions and/or material loss of any kind that any organization may experience if it fails to comply with the set of policies, standards and internal requirements that controls its environment.
- **Business Continuity Risk:**
The business continuity plans of organizations, both domestic and globally, should be designed to accommodate this set-up and should be aligned and integrated. The risk associated with the organization's ability to recover and/or restore interrupted critical function(s) within a predetermined time after a disaster or extended disruption needs to be defined.

All these new risks are the result of this trend and will contribute to the hidden cost of global delivery.

5.2.3.2 The impact on work structure and team design

To assess the impact of global delivery on delivery organizations, the following is a strategic outsourcing example illustrating the structure, roles and responsibilities, HR relationships, and escalation procedures.

The Account Management Team was composed of the following eight Offices / Teams that collaborate on the delivery of Requests For Service (RFS).

1. Outsourcing Account Project Executive Office
2. Business Office
3. Requests For Service (RFS) Office
4. Project Management Office (PMO)
5. Finance
6. Delivery Organization(s)
7. Enterprise Architect
8. Resource Deployment Manager (RDM)

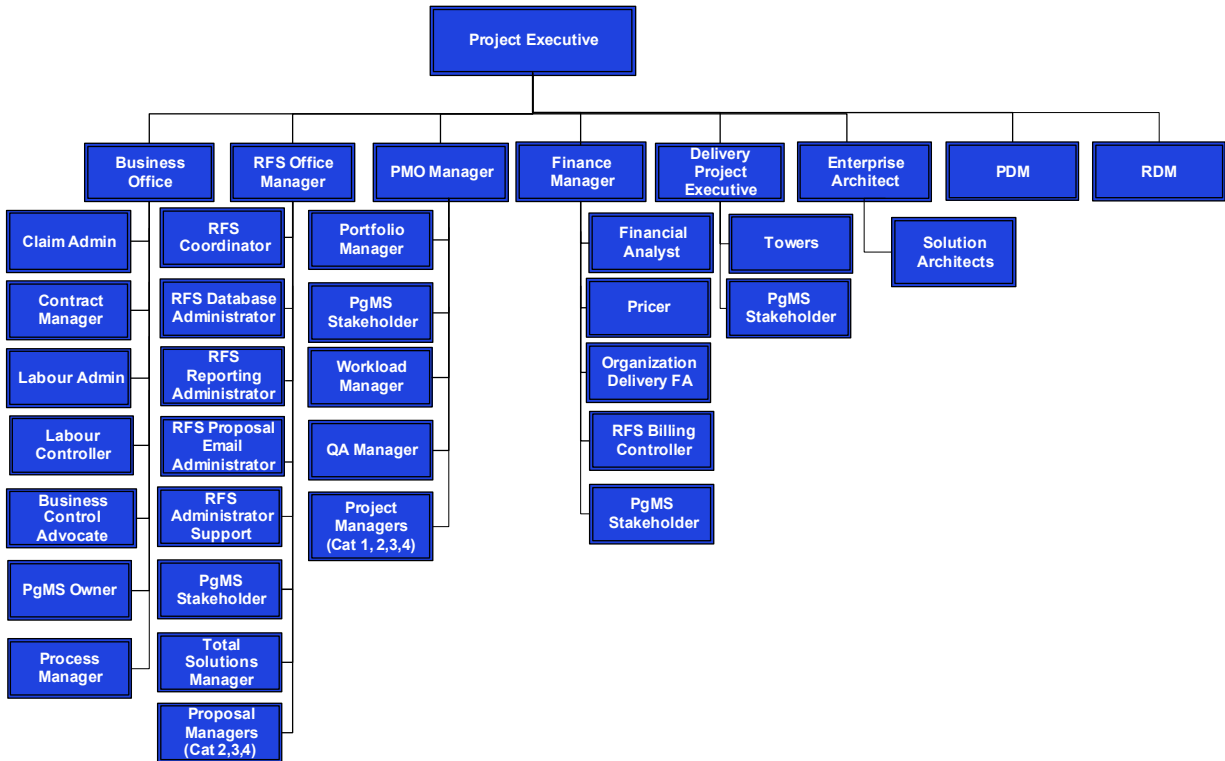


Figure 5: Outsourcing standard structure

Source: IBM W3 Strategic Outsourcing - Best Practice Methodology

Three of the business areas were described in this model with the support of their corresponding sub-organization charts (Project Executive, Request for Service (RFS) Office and Project Management Office (PMO)).

The conventional model mentioned above, did not accommodate any stakeholders beyond the local environment and team. Since global delivery transition started, this model could not accommodate the necessary communications. Serious issues started affecting delivery due to team work, risks that started to materialize, issues such as holidays, language, security compliance, etc. The project teams started demonstrating low performance, poor utilization, inconsistent quality, duplication of efforts and finally client satisfaction concerns.

With the demand of adding Global Resources in IT application delivery and support as well as steady state infrastructure support, the account organization needed to change to provide the necessary governance to support the model.

The recent growth of global delivery in the infrastructure support and application development areas raised concerns and gaps that affected the delivery performance. Changes in the account structure and global delivery contents, along with goals and objectives of this restructure are required to provide:

- Greater flexibility and a variable staffing model, afforded both by outsourcing practices (that can be increased or decreased as needed) and by differing labour rates that allow IBM outsourcing accounts to find the right skills at better cost;
- Lower-cost labour that can offset budget cuts and cost reductions, as well as supplement existing teams so they can expand their focus;
- Access to a broader set of skilled workers;
- An ability to leverage specialized skill and experience to address new requirements or innovations in specific areas; and
- An ability to gain a competitive edge -- to increase speed and decrease costs -- by leveraging skilled but lower-cost resources, experienced outsourcers, and overlapping time zones.

Critical Success Factors and gaps:




- Global coordination and oversight
- Well-defined and consistent workflows
- Managed information, assets and artefacts
- Effective communication, to promote team building and social networking.
- Establish a flexible, adaptable IT infrastructure and architecture. Specific considerations should include:
 - Client access to network;
 - Security and the ability to restrict access to artefacts as needed;
 - An ability to interact and integrate with other tools and platforms in a heterogeneous operating environment;
 - Support for team collaboration; and
 - An ability to support necessary languages and code.

The following are challenges that will cause an impact on conventional work structures and systems:

- Misunderstood or mismatched processes between teams may lead to mistakes in work transfer, increased rework, and decreased productivity. By some estimates, productivity in a Global Delivery Center (GDC) project can drop up to 50 percent, with rework two to five times greater than for a collocated project;

- Communication issues that may lead to misunderstandings, omissions, errors, and rework;
- Cultural issues, such as language barriers and differences in work customs or communication styles, can cause delays and affect working relationships;
- Coordinating work across multiple sites and time zones is more time-consuming and costly than for a collocated project;
- Visibility into and control of the development activities at all sites can be challenging, especially when collaborating with other companies or with teams in different time zones;
- Project metrics can be inconsistent and difficult to obtain from heterogeneous infrastructures, different processes, or company security boundaries, making it difficult to measure success;
- Political issues both within the company (organizations that fear losing work or resent the overhead of remote sites) and externally in the country or region, lead to hidden agendas and conflicting goals; and
- Infrastructure and development tools require an alignment that was not designed for geographic disbursed teams.

Table 4: Strategic Outsourcing Globalization TOWS Analysis

<p>Opportunity-O</p> <ol style="list-style-type: none"> 1. Increasing market demand 2. Technology breakthrough 3. Increasing interest and recognition by client organizations 4. Cost savings 	<p>Strength-S</p> <ol style="list-style-type: none"> 1. Strong skill set and talents IN GR countries 2. Lower cost rates for GD human resources 3. High resource availability 4. Uninterrupted delivery/service time (round the clock work time) 	<p>Weakness-W</p> <ol style="list-style-type: none"> 1. Global infrastructure, communication and network bandwidth limitation 2. Culture diversity 3. Time-zones differences of global delivery resources 
<p>Threat-T</p> <ol style="list-style-type: none"> 1. Slower economy 2. Competition 3. Technology Change 4. Local resource instability and low motivation 5. Increase unemployment rates in receiving countries 	<p>SO Strategies</p> <ul style="list-style-type: none"> ▪ Market penetration Strategy: New markets development introducing IT service lines. (S1, S2, S3, O1, O2, O3) ▪ Product/service development: Expand scope of GR offerings. (S2, O2, S4) ▪ Concentric diversification: New acquisitions of GR branded service providers. (S1, O3, S4) 	<p>WO Strategies</p> <p>Backward strategy: Engage new business partners and 3rd parties specialized in communication and network carriers. (W1, W2, O3)</p>
	<p>ST Strategies</p> <ul style="list-style-type: none"> ▪ Concentric diversification: focuses on adding new, but related, services. Expand support beyond infrastructure support to include application support, development or business consulting. (S3, S4, T1, T2) ▪ Market Penetration: Increase market share for present services in present markets through marketing efforts. (S3, S4, T2) 	<p>WT Strategies</p> <ul style="list-style-type: none"> ▪ Revise the organization structure of both Local and GR, and implement reorganization plans to lean the organization and improve integrity (W1, W2, T5) ▪ Increase management resources and client facing positions (W1, W3, W4, T5)

6 Conclusions

The globalization of IT services and outsourcing is a win for both strategic outsourcing providers and clients. Off-shoring is not panacea for all ills, but companies feeling economic pressures have more options than they did years ago. The growing capabilities in global delivery countries are adding new options and advantages for both the outsourcing service providers and clients.

Global Delivery Service providers are expanding in an effort to mimic their multinational forbearers in IT outsourcing. Some are also starting to offer infrastructure optimization consulting services. The globally-based service providers may exert as much influence as they receive.

IT outsourcing service providers in the strategic outsourcing industry will continue transition plans to global delivery countries to meet clients' expectations of less cost for IT service [12]. Global delivery companies have no plans to scale back, and are committed to keeping new hires.

Despite the low cost of skill-sets available globally, hidden costs should be included in any global outsourcing business case assessment before making cost based decisions.

Despite the financial crisis and the new U.S. President's agenda [27], global delivery providers are not expecting a negative impact because they have evolved far beyond the initial business models, which relied so heavily on bringing people onsite in a staff augmentation mode. The foundation of Global Delivery IT service providers is no longer just providing labour arbitrage; it is now deeply entrenched with business models and services based on productivity increases, faster time-to-market of products, quality improvements, and intellectual property.

The current economic slowdown will accelerate the off-shoring of IT jobs to global delivery countries. Gartner notes that many U.S. companies are taking steps to speed up their off-shoring programs in order to contain their labour by sending more of their IT jobs offshore.

Global delivery and outsourcing will require many strategies to deal with the challenges facing this industry.

Communication strategies should address the risks and client satisfaction issues related to global delivery resources in client facing roles. The Stern School of Business' survey [28] provided statistical analysis that supports the need to consider a local interface layer and roles to manage the client relationship.

Good communication practices help management get the outcomes they desire. Developing good communication habits takes some conscious attention, but once they become familiar, they can be the secret to improving relationships, increasing productivity and advancing careers.

Understanding and applying good communication habits creates a foundation for the kind of credible and dynamic leadership sought by most organizations.

Due to new team structures under a global delivery model and teams that are geographically disbursed, the use and demand for unified communications and collaboration suites is very important. These tools will enable enterprises to build suitable communications capabilities into their business processes and to include presence.

Collaboration tools should include instant messaging and click-to-call features on Websites to allow better communication systems. Participants with inquiries should be able to start conversations with one click from the Website.

Due to new organizations where resources of the same team are geographically disbursed, there is Impact on work relationships such as employee involvement, teams, employee empowerment, and the ability of people to make decisions about their work. This employee involvement, teambuilding approach, and employee empowerment increases loyalty and fosters team members' commitment.

The project management and delivery model will require suitable systems to manage several areas that will be affected due to new team structures. The role of the Project Management Office (PMO) has to be structured to ensure that the offshore programs run smoothly and ensure that savings are generated. The Project Management Office in the global delivery model should manage resource utilization (locally and globally), align outsourcing strategy for each project with the organization strategy, manage compliance with multiple standards in various geographies, and maintain relationships between all stakeholders, including off-shoring team members.

The impact of cultural differences in offshore outsourcing organizations has a major impact. Employees' behaviour in global delivery organizations vary by country and culture. Global outsourcing organizations shouldn't overlook behavioural and [cultural differences](#) of their diverse staff. Moving to global delivery, there is a critical need to understand the cultural differences in the various delivery geographies.

Global delivery and off-shoring creates new risks. Risk management should include risks such as political and country risks, cultural risks (e.g. language differences, varying communication protocols, differing work ethics and cultural norms), contractual risks, operations risks, compliance risks, and business continuity risks.

Critical success factors on work structure and team design will require adjustments to manage programs globally and leverage PMO processes and procedures to align the program to the overall account management model and performance management (Financials, Procedures, Templates, Quality Assurance, Client Satisfaction measurement programs, etc.).

7 Recommendations

In order to address the issues and impact of global delivery on outsourcing in communication, culture, growth, risk management and work structure areas, I recommend the following, based on my analysis and TOWS assessment.

The TOWS analysis suggests the following high level strategies that will address communication, culture, growth, risk management and work structure.

Weakness/Opportunities Strategies-Backward strategy:

1. Engage new business partners and 3rd parties specialized in communication and network carriers. (W1, W2, O3).

Weakness/Threat Strategies:

1. Revise the organizational structure of both local and GR teams, and implement reorganization plans to lean the organization and improve integrity (W1, W2, T5); and
2. Increase management resources and client facing positions (W1, W3, W4, T5).

7.1 Communication Management:

1. Design and implement a communication management plan to include all communication requirements of all stakeholders, locally and globally. Define all communications that will be required during all delivery stages. Communications will include status reporting, reviews, meetings, performance reviews, quality reviews, news letters, and announcements. The plans will define the communication owners, the input and output of each communication, and frequency;
2. Implement a local program manager role to manage communications between the client, local project resources and global delivery resources;
3. Design and implement programs to measure client satisfaction and capture trends of client satisfaction issues;
4. Implement communication and language training programs for all resources that are frequently needed to interact with the client;
5. Establish a project culture that will improve the communication and appreciation of all stakeholders, locally and in global sites. Establish good practices and habits that promote clear and effective communications. Team building plans will be the vehicle to deliver this culture;
6. Increase network infrastructure bandwidth and fibre optics communication lines to allow the speed and capacity for file transfers, data and communications. Allow network and disk capacity to handle the needs between geographies and allow capacity for disaster recovery and business continuity;
7. Implement collaboration information systems and tools that can support communication requirements. Such systems should be able to provide instant

- communication means, virtual meeting forums, email, document management, etc;
8. As organizations take an increasingly global approach, international HR and benefits strategies are evolving from piecemeal handling of individual ex-pat and mobile workers' needs into a strategic function in support of overall business goals. As HR becomes an international undertaking, employers need to align with other countries' rules and regulations. HR departments should establish training plans for managers and team leads to learn and improve employee empowerment techniques, team building, and enhance employee involvement; and
 9. Define and document roles and responsibilities for all stakeholders. Develop an integrated organizational structure define the relationship of all members of delivery, including local and offshore resources. Define escalations paths and relationship governance. Implement training plans to communicate new roles and responsibilities to all members of each program.

7.2 Culture:

1. Implement two-way training to exchange culture differences and values of both local and global resources. Employees' behaviour in global delivery organizations vary by country and culture. Global outsourcing organizations shouldn't overlook behavioural and cultural differences of their diverse staff;
2. Establish exchange programs and boot-camps for some resources that will be client facing to allow resources from these global delivery countries to understand receiving country language, habits and life styles. These regular exchanges will allow both sides to get used to working together; and
3. Define detailed procedures and policies that are more comprehensive to strengthen corporate governance regarding various actions and judgements. This type of governance will eliminate misunderstanding across geographies regarding critical decisions that may be affected by culture. Regular on line training will allow staff to certify and confirm their understanding of this governance.

7.3 Managing Risk and Planning for global outsourcing growth

1. Define an advanced global risk management template for risk management activities across the outsourcing accounts and programs. Risk management procedures and templates should be designed to measure the political and country risk, cultural risk (e.g. language differences, varying communication protocols, differing work ethics and cultural norms), contractual risk, operations risk, compliance risk, business continuity risk and define risk management plans for each. Risk management should be assessed regularly and reported at each account/program level;
2. Review and update Business Continuity Strategy (BCS) and Disaster Recovery Plans (DRP) for the global outsourcing account. The plans should be aligned with contractual recovery requirements and support Service Level Assurance (SLA). Ensure that recovery testing is conducted regularly;

3. Implement a global quality management system that consolidates and integrates various quality systems, procedures and standards adopted across various stakeholders' organizations (i.e. global delivery units, local outsourcing programs and the client). Quality audits should be organized and carried out formally. Corrective and preventive actions and plans should be managed; and
4. Implement measurement systems and performance dashboards to track and report on performance, risk management, issues, changes, quality, Service Level Assurance (SLA) attainment, Mean Time of Recovery (MTR), resource utilization, disk space, network availability, etc.

7.4 The impact on work structure and team design

1. The project management and project structure will need suitable systems to manage several areas that will be affected due to the new team structure. Figure 5 illustrates a structure for outsourcing global service programs. The traditional role of the PMO is altered to ensure that the all programs including offshore delivery run smoothly;
2. Implement Engagement Management Office: The Engagement Management Office (EMO) in the global delivery model should manage resource utilization (locally and globally), align outsourcing strategy for each project with the organization strategy, manage compliance with multiple standards, and maintain relationships between all stakeholders, including new ones that come with off-shoring;

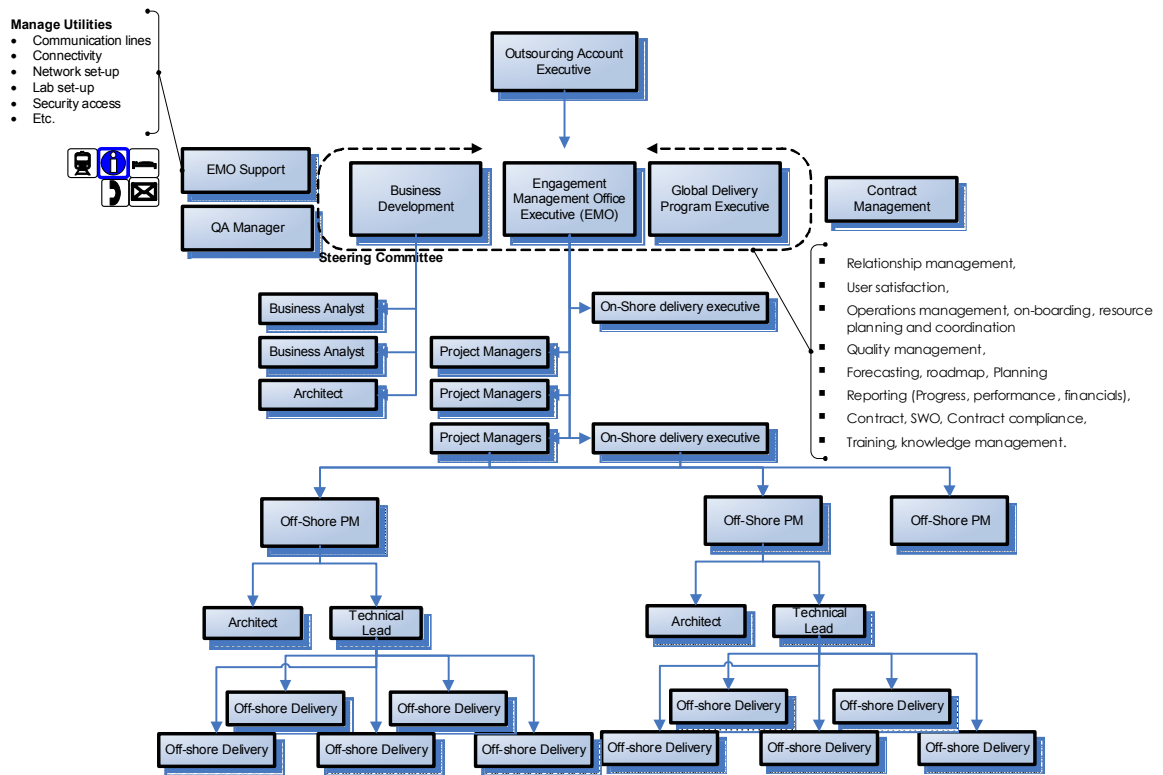


Figure 6: Engagement Management Office EMO-created as a result of the analysis to suggest management model for global delivery organizations

3. Link the EMO to account governance and leverage PMO processes and procedures to align the program to the overall account management model and performance management (financials, procedures, templates, quality assurance, client satisfaction programs, etc.;
4. Ensure that a common interface is provided which will handle items above the project manager/team leader level in a uniform manner, instead of providing multiple management interfaces between IBM and the client organization from project to project which can cause variations;
5. Define tools and templates to support the global management system and control governance;
6. Staff the EMO with both client and outsourcing organization staff;
7. Mandate the EMO to manage the relationship, user satisfaction, operations, quality, forecasting, reporting, contract compliance, etc; and
8. As part of the EMO process, ensure that a steering committee with members from both the global outsourcing project management and client organizations meets regularly to ensure the engagement remain focused, on track and meeting established service level targets.

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