



# System and Process Analysis of IT/IS Outsourcing in Japanese Market: Opportunities for India

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## Abstract

*The economic melt down in North America has taken a toll on most Information Technology/Information Systems companies in India. In response, Indian IT companies are looking towards untapped opportunities in other parts of the globe. The IT outsourcing market of Japan is the second largest market of world after USA. Based on a case study of a large transnational IT firm, this article examines the IT outsourcing process of Japanese firms and attempts to identify the lower level of Indian penetration to the Japanese IT outsourcing market using tools like SAP-LAP analysis, Porter's five force analysis, Root Cause Analysis and SWOT analysis. Grounded in available knowledge on outsourcing relationship and process theory as well as a resource-based view of the IT resource capability, a conceptual model is composed to examine the causal structure of capability, process flexibility, and relationship in IT outsourcing. By proposing a framework developed through a case study, this article will assist management of Indian IT companies to obtain the benefits from the IT/IS outsourcing market in Japan.*

**Keywords:** SAP LAP analysis, outsourcing, information technology, process flexibility, Root Cause Analysis

## Introduction

As we all know today that there is a huge opportunity in the IT outsourcing market for India. The total export of IT service market is expected to be in the range of \$80-90 billion by the year 2009. And almost \$50 billion would come from the export market. And to get maximum portion of this market, every IT company is trying hard. Today all the major IT companies are present in India and they are also willing to be a part of this big opportunity. The IT outsourcing part is a big factor to all of these IT companies. IT outsourcing market of Japan is the second largest market of world after USA. So every company is trying to penetrate that market and India is giving a tremendous opportunity to each of these companies to setup their bases in India and serve the Japanese IT service market. IBM among other companies is also trying hard to get a big portion of this market. In this paper through a case study, we shall try to understand the process that IBM (India) is following to execute the Japanese projects and its strategy towards

successful completion of Japanese projects. Here in this article we shall discuss about the IBM India's operation and its competitiveness that is where it stands now compare to other IT companies. In this article we shall try to analyze the causes of lower penetration of IBM India for Japanese outsourcing project. We shall also discuss about the ongoing process that is being followed by IBM (India) for executing the Japanese projects. The idea is to understand the problems that are being faced by IBM (India) in different sections in executing the Japanese projects successfully. We shall also use some of the analysis tools like SAP-LAP analysis (Sushil, 2001), Porter's five force analysis, Root-Cause analysis, SWOT analysis etc to find out the reasons for the lower level of penetration to the Japanese outsourcing market despite the fact that there is a huge potential for the Japanese outsourcing market. For outsourcing to be effective, firms must exhibit flexibility in their strategy and operations. Flexibility theory implies that the firm has a larger set of future positions (or options) at any given level of cost (Jones, R., and Ostroy, J., 1984). The fundamental objective

of this case study is to understand that how the whole process of executing the Japanese project goes on in IBM India and what are the different problems that IBM (India) is facing now to execute the Japanese project and how to come up with the successful solution of these problems. Further we assess where IBM(India) stands now when compared to other IT companies.

## Literature Review

IT outsourcing has generated considerable interest among the industry as well as the researchers' community since last few decades. de Looft (1997) defined Information System outsourcing as "the commissioning of some parts or all of the information system activities of an organization, or transferring the associated human and other IS resources to one or more external supplier". The use of outsourcing continues to grow as a strategy in organizations. Organizations use outsourcing to lower costs and sharpen focus by specializing in the core tasks. This case study proposes that firms need to consider both their internal organizational stability and flexibility when developing outsourcing contracts in the information systems/technology (IS/IT) areas. Addressing these important factors can assist in obtaining improved satisfaction and better service with the outsourcing project.

*One of the traditional reasons for firms to outsource is to remain flexible in a volatile labour market.*

Organizations need diverse and high quality information services to survive and excel in the rapidly changing business environment (Barney, 1991; Ives and Learmonth, 1984; Willcocks et al., 1993). The future of an organization relies heavily on the quality of information services it is using, which would result in sustainable competitiveness. An organization's overarching objective in managing its information resources, then, should be to maximize flexibility and control in order to pursue different options as its circumstances change (Lacity et al., 1995). To accomplish this objective, more and more organizations look to IS outsourcing by external service providers rather than pursuing in-house development. Abrahamson (2004) discussed how Cisco outsourced, integrated, and again outsourced a particular project over a 2-year time span. Dyer et. al (1998) have observed that Japanese companies make a distinction of outsourcing as to whether it is based on an arm's length or a strategic partnership basis. Watson et. al.(2004) offer a useful theoretical framework for examining the performance implications of outsourcing strategy. Many companies make outsourcing decisions by evaluating only a few options on the basis of their previous experience and by what their competitors are doing (Farrell, 2006).

## IBM India and its Competitors

The growth rate of IBM India is the fastest among the other multinational IT companies present in India. In terms of revenue IBM is the global leader, almost twice as bigger as EDS which is the second biggest company in this sector.

The total headcount for IBM Globally is about 330000 as of 2005 and it has gained \$7990million net profit globally. The revenue per employee for IBM is also higher than its counterpart. In terms of headcount, revenues, net profit, and revenue per employee IBM is the global leader in all these parameters. IBM is way ahead of any Indian IT company. Its closest Indian rival is TCS. In the international scenario, as far as market capitalization is concerned, EDS can be regarded as the second biggest IT Company.

## Japanese IT and ITES Market

The Japanese market for Indian IT industry has a huge business potential. The Indian IT Industry is looking ahead to make an impact in Japanese IT outsourcing market. The Indian IT companies either planning to open office or already having office in Japan or is in the process of scaling up their presence. There are approximately 70 such organizations. Around 52 companies (like TCS, Wipro, IBM, HCL, Infosys, Patni, Perot Systems, NIIT, Clarity Technologies, Systems & Software, Indicus Software) already have presence in Japanese market or have large projects with

Japanese clients. Most of the Indian IT companies are now a days trying to have a presence in the Japanese outsourcing market. The Indian IT companies are overly dependent on US and European market, and hence focusing on other market will definitely help them to de-risk their business. Further the potential for Japanese IT outsourcing market is huge so the Indian IT companies are trying their best to get into the Japanese outsourcing market and to get a good proportion of revenue from this market.

## Indian Presence in Japanese IT Market

- About 75 % of the Indian software companies have office in Japan and 25% have executed at least one project for their Japanese client.
- About 37.5% of the Indian companies are mainly focusing on Manufacturing and BFSI industries.
- About 25% of the companies are focusing on the IT Service area.
- And only 17.5% of the Indian companies are focusing on Retail, Energy, Media, Telecom and Communication services etc.

## Major Services Offered to the Japanese Clients

Indian IT Industry offers variety of services from low end to highly specialized services to Japanese clients, mostly in offshore software development model. Workflow automation, Legacy modernization & maintenance, System Integration, Japan specific software products, Infrastructure deployment & management, Application development – CRM, ERP, SCM, Embedded Software, Design & Development, Engineering (CAD/CAM/CAE), E-Commerce, GIS and Spatial solutions, Telecom, Wireless business application, Entertainment, 3D modeling, animation, special effects etc.,

Security – Penetration testing, Security policy development, User authentication systems, Security audit, high end Consulting are some of them. Almost 75% of the Indian software companies which are already present in Japan are planning to scale-up their operation. It is only recently that Japanese companies are more open to outsource their IT services from India due to prevailing tough economic conditions at home. Outsourcing can improve operating efficiency and can also improve business performance. Many Japanese companies are now aligning themselves with cost reduction policy therefore bringing the outsourcing opportunities to Indian IT industry.

The local Japanese IT companies are not able to meet above requirement due to high cost of software development & shortage of skilled personnel. As a result, Japanese companies are now more open to outsourcing their IT services to outside parties than before. Almost every player in Indian IT industry foresee that Japanese industries are inclined to outsource their software service work to outside parties and India potentially meets the expectations of their needs.

*Outsourcing makes available to a firm the value added expertise on a transaction-by-transaction basis, so that the firm can avoid the long-term commitment to any specialized knowledge or a fixed price.*

### Japanese Industries Inclination to Outsource to India

Today most of the Japanese industries are inclined to outsource their work to the Indian IT industry. Quite a few Indian companies have successfully completed complex projects. The main reasons to outsource IT work to India can be explained through the following points:

- Japanese companies are aware of Indian IT capabilities in terms of execution of projects and quality of services.
- The Japanese companies have been slow to adopt the outsourcing model but have started recognizing the significance of offshore delivery process and are slowly accepting this.
- The Japanese market is extremely cost & quality conscious as well as lays a lot of emphasis on confidentiality & on-time delivery of programs/projects. Indian IT companies have
  - > High emphasis on quality & processes.
  - > Highly skilled workforce.
  - > On-time execution of complex & large projects.
  - > Been able to bring the learning and vast experience from European and US markets.
  - > Developed software for Japanese companies operations in English speaking countries.

Because of the above discussed reasons the Japanese companies are very much inclined towards outsourcing from Indian IT companies. And this trend is growing in a much faster pace since last few years. As a result most of the IT companies based in India are not getting adequate people knowing Japanese language and Japanese culture.

### Breakdown of Export Market for Indian Software Industry

According to 2005 data the total Indian software export was about \$17 billion. Most of the export was into the North American market. Although the export of the Indian software is heavily dependent on the USA market (about 60%) and the EU market (about 23%) Japan is also rapidly catching up as a favorite export destination for the Indian IT export market. The Japanese market now contributes only 4% of the total export of Indian software to different destination. So there is a tremendous chance of growth of export of Indian software services to the Japanese market as more and

more companies are focusing their attention to the Japanese outsourcing market as to reduce the over dependence to the US market. Figure 1 shows the Indian software industry's export to the different countries of the world.

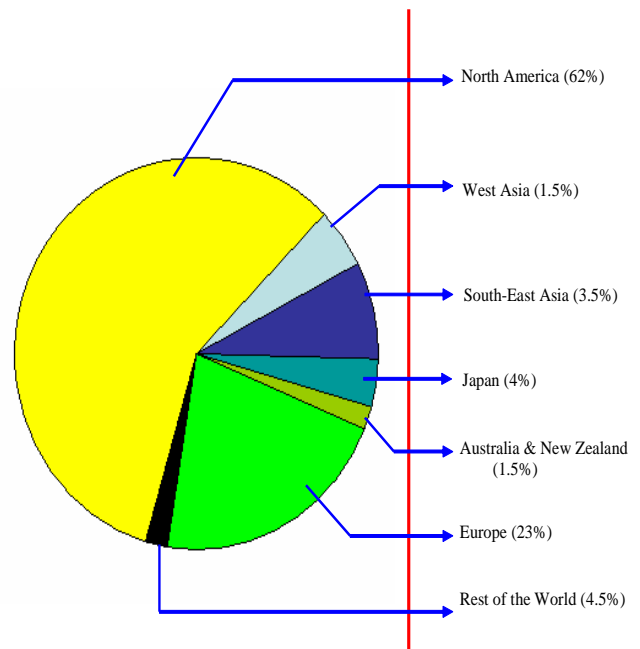


Figure 1: Indian Software Export Destination

Source: IBM Internal Database, 2009, © Reserved

### IBM India's Delivery Hierarchy for Japanese Project

The delivery model of IBM India can be seen as a hierarchical structure and can be presented as a pyramidal model. Here the pyramid can be divided into five levels. At the top of the pyramid there is the delivery project manager who is based in Japan. He actually acts as the main communication channel between IBM India and IBM Japan for the Japanese project. In the pyramid the next level is occupied by the account manager who is based in India and he is in charge for the entire Japanese project in India. Below him is the project manager. There may be multiple project managers for a single project if that the project is a large project. Below him is the team leader who actually leads

the team for a particular project. And at the bottom of pyramid there are team members those are larger in number and contribute for the project enormously. Below in figure 2 the different levels of the pyramid structure are shown below.

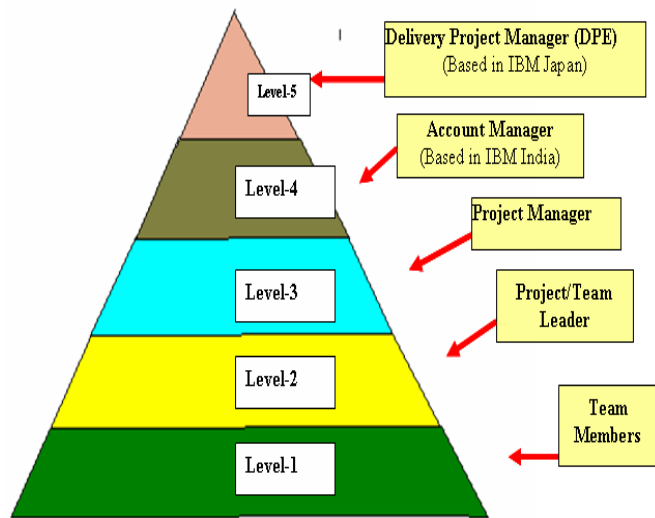


Figure 2: Delivery Hierarchy Model

Source: IBM Internal Database, 2009, © Reserved

### Porter's Five Force Analyses

#### Suppliers

- The IBM Japan is the supplier of order to the IBM India for the Japan related project.
- There is no competition between the IBM India and IBM Japan for capturing the Japanese related project.
- IBM Japan actually decides as to who the outsourcing order is to be given, IBM China or IBM India.
- There is no direct competition between IBM China and IBM India. But there is indirect competition among them.
- Generally the projects which require more Japanese language skills go to the IBM China.
- The project that required more technical knowledge skills goes to IBM India.

#### Buyers

- The Japanese Industries.
- The manufacturing sector, automobile sector and the electronic sector give the maximum outsourcing order to IBM Japan.
- The Government of Japan also outsources some of their requirements from IBM Japan.

#### Substitutes

- There are several small and big software companies present in Japan.
- The Indian IT giants like TCS, Infosys, Wipro are also present in Japanese market through their subsidiaries.
- Also there are several low cost outsourcing companies present in Japan and the customer may incline towards them.
- Some of the smaller Chinese outsourcing companies those are present in Japan get a significant chunk of order from the Japanese customers.

#### Potential New Entrants

- Many new software companies are investing in Japan through their subsidiaries.
- All the big IT companies like TCS, Infosys, Wipro are present in Japan.
- About 37.5% of the Indian companies are mainly focusing on Manufacturing and BFSI industries in Japan.
- About 25% of the Indian companies are focusing on the IT Service area. And this number is increasing day by day.
- The Chinese IT companies are also planning for entering into Japan in a new way.

#### Rivalry among Existing Competitors

- The IBM China is the main competitor for IBM India. Because once the outsourcing deal happens between IBM Japan and the Japanese company that wants to

### The Process Flow

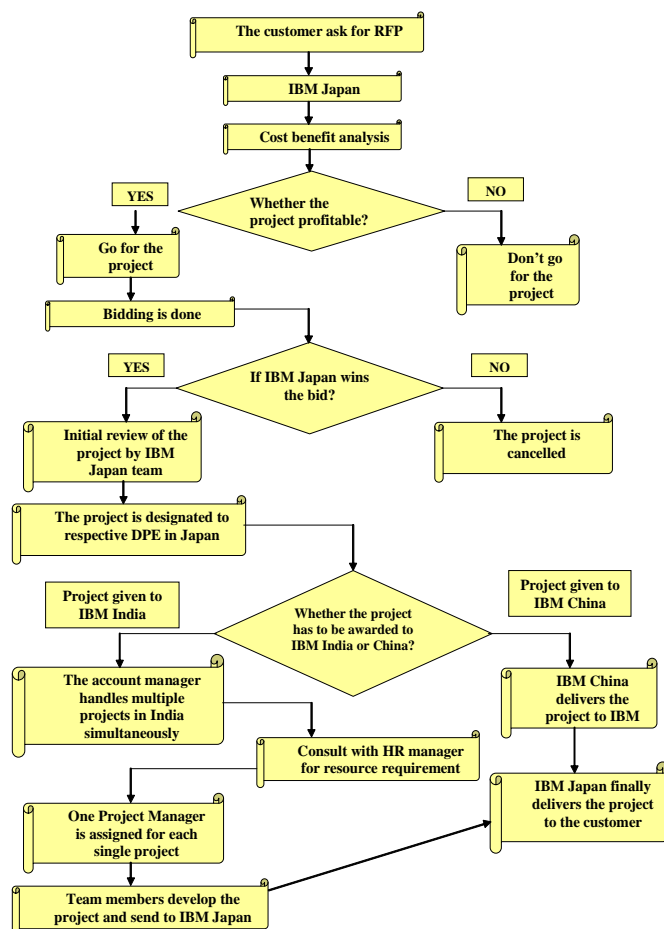


Figure 3: The Process Flow Diagram

outsource their software service from IBM Japan it is almost sure that it will go to IBM India or IBM China.

- Though there are some high value outsourcing deals that happen between the IBM Japan and the company that wants to outsource goes directly to IBM USA. But this number is relatively small.
- But in home IBM Japan faces stiff competition from the Japanese software companies.

### SWOT Analysis

#### Strengths

- **Cheap labor cost:** The cost of qualified personnel being lower in India than the Japan and other western countries is attracting several offshore partners to make investments in India. India ranks high in areas such as qualifications, capabilities, quality of work, linguistic capabilities and work ethics. Though the China is also competitive in terms of labor cost but the quality of software professional is steel lower than India.
- **Highly cost efficient:** By outsourcing to India an organization can save as much as 40-50% percent of costs compared to what it would cost in Japan thus allowing an organization a great competitive edge.
- **Availability of Software Professionals:** In India a lot of talented software professionals are available than any country in the world.
- **IBM India's advantage in terms of larger investment:** IBM India has required talented mass to complete the projects on time. It is also hiring greater number of software professionals and has decided to invest \$6 billion over the next three year starting from 2006.
- **Strong management support:** IBM India has a very efficient management team to execute the Japanese project.
- **Quality service:** IBM India is capable of giving quality service to its Japanese customers.
- **Integration:** IBM has the capability to give integrated end to end solution to its customers.
- **World class telecom service:** India administers one of the largest telecom networks in Asia. And has 123,000 route kilometers of fiber optic cable network. Also the bandwidth cost is moderate in India.
- **Brand building:** The Indian software companies have already established their brand in the world market and that also encouraging the IBM Japan to outsource much of their outsourcing requirement from IBM India.

*In a dynamic technology and labor environment, firms making long-term commitment to specialized technology or personnel may experience diseconomies of scale or scope, internal slack, or a higher fixed cost.*

#### Weaknesses

- **Understanding language:** The disadvantage that IBM India is facing is the language problem. There are very

few technologically savvy people in India who knows the Japanese language well.

- **Managing communication:** As the number of Japanese language speaking people in IBM India is very few (presently it is about 20), as a result there are problems to understand the customer requirements.
- **Cultural differences:** Though India and Japan has a cultural relationship from the ancient time but there are lot of cultural differences among the two countries.
- **Infrastructure:** There are some infrastructure problems in terms of bandwidth cost, first implementation of ongoing projects etc that IBM India is facing.
- **Lower number of middle level manager:** In a recent survey by nascom there is a huge requirement for middle level managers for handling the software projects. In case of Japanese related project by IBM India this problem also exist.

#### Opportunities

- **More investment in India:** Though, there are three or four Japanese projects are simultaneously going at IBM India, Pune delivery centre but this number is increasing day by day. As a result IBM India is investing huge amount of money for infrastructure creation and also to develop proper productive human resource.
- **Large number of new recruitment:** The total number of Japanese language known people in IBM Pune now standing around twenty, which may go up to five hundred within the next five years.

**Government Initiatives:** The Government of India has taken many initiatives to encourage

the IT sector. Also the relationship between India and Japan is improving tremendously. As a result more Japanese companies are willing to outsource there software service requirements from India.

- **New Location:** There are many new locations those are coming up within few years from now and hence the Japanese projects can be carried out at multiple locations simultaneously.
- **Larger number of software professionals:** Though there is a shortage of Japanese speaking people in India, but there are plenty of talented software professionals those are available in India and the human resource expense is much lower compare to other countries.
- **Relationship between Japan and China:** The political relationship between China and Japan is not so good as compared to India and Japan and this may encourage IBM Japan to give more projects to IBM India.

#### Threats/Challenges

- **Higher attrition rate:** The attrition rate is increasing rapidly as a result the people involve in Japanese project

may go to the other organization and as a result the concerned project may get delayed.

- **Rising employee costs:** The employment cost in India is rising at a 10 to 15 percent rate annually as a result the total project cost is increasing. As a result new emerging countries such as Philippines, Vietnam etc are also catching up fast with their Indian counterpart.
- **Political instability:** In India whenever there is a change in Government, certain initiatives taken by previous Government are changed. So it harms the IT sector. And the Japanese counterpart may think twice before giving project to India.
- **Other competitive players:** TCS, Infosys, Wipro etc IT companies are looking very aggressively to the Japanese outsourcing market. Hence IBM is facing a lot of challenge to get the Japanese project. But still it is the biggest player in the Japanese outsourcing market.
- **Emergence of other low cost countries:** Except India and China there are quite a few low cost emerging countries in south-east Asia like Philippines, Vietnam etc those are trying to penetrate the Japanese outsourcing market.
- **Shortfalls of IT professionals:** It is projected that by 2010 there will be a sharp shortfall of IT professional in India. The demand will suppress the supply for IT professionals.
- **Lower number of Japanese speaking software professionals:** Also the number of IT professionals knowing Japanese language is not increasing as compare to the Japanese projects coming to India. So these things are becoming a concern not only for IBM India but for all the IT companies across India.

*The Japanese market for Indian IT industry has a huge business potential. The Indian IT Industry is looking ahead to make an impact in Japanese IT outsourcing market.*

### SAP-LAP Analysis

The SAP-LAP Analysis has been done to find out the relationship between the situation-actor-process and with the help of them the learning from this analysis, the action required to improve the performance of the system. The SAP-LAP model (**Situation Actor Process-Learning Action Performance**) is an innovative and holistic framework for case analysis (Sushil, 2001). In this model, the case is analyzed with respect to the mentioned heads and their interdependence is studied to gather learning from the case. Following questions help in gaining the understanding of the different stages of the model.

#### Situation

Q1. How IBM India is managing the Japanese related projects?

IBM India has a Global Delivery centre in Pune from which it is managing its Japanese related projects.

Q2. What is the current situation?

IBM India is facing acute shortage of human resource having proper Technological skills and knowledge about Japanese language. And the number of Japanese related project coming to IBM India is sharply increasing. So the

demand-supply gap is increasing day by day.

Q3. What is expected to happen?

Many actions have to be taken by the IBM authority to improve the demand supply gap. If immediate action is not taken the following are the consequences, which could happen

- Many Japanese related projects those are coming to India may be shifted to China.
- There may be delayed for the existing ongoing Japanese related projects.
- Further the company (IBM India) may loose revenue for this reason.
- Other rivalry companies in India may get subsequent Japanese related project and IBM India may loose its supremacy.
- The Chinese domestic IT firms may start to penetrate more in Japanese related project as they have the required language skills.

#### Actor

Q1. Who are the actors?

- The management of the IBM Corporation.
- IBM India management team and strategic experts.
- The employees of the IBM India who have already acquired the Japanese language skills.
- Other competitive companies (both Indian IT

### Tabular form of SWOT Analysis

<p><b>Strength</b></p> <ul style="list-style-type: none"> <li>• Cheap Labor Cost</li> <li>• Availability of software professionals</li> <li>• Execution of complex project on time</li> <li>• Strong Management support &amp; Integration</li> </ul>	<p><b>Weakness</b></p> <ul style="list-style-type: none"> <li>• Understanding Language</li> <li>• Managing Communication</li> <li>• Infrastructure</li> <li>• Cultural Differences</li> <li>• Middle level Manager</li> </ul>
<p><b>Opportunity</b></p> <ul style="list-style-type: none"> <li>• Heavy investment in India</li> <li>• Government Initiative</li> <li>• New Locations</li> <li>• Larger recruitment</li> <li>• Political differences between China&amp;Japan</li> </ul>	<p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Rising Labor Cost</li> <li>• High Attrition rate</li> <li>• Emergence of new low cost countries</li> <li>• Shortfall of IT Professionals by 2010</li> <li>• Other competitors</li> </ul>

Figure 4: The Summarized SWOT Analysis

companies and Global IT companies) those are concentrating on Japanese Outsourcing Market.

- The Chinese domestic IT players.
- The Indian technological / management institutes those run the language courses.
- The management of IBM Japan that is primarily responsible for giving the Japanese related project to IBM India.

Q2. What are their views?

The following are the various views:

- **The management of IBM:** To recruit people having technological skills as well as the Japanese language skills in India and directly recruit people from Japan to work for IBM India.
- **IBM Japan authority:** To give more and more Japanese related project to IBM India to reduce the cost and increase revenue.
- **The technological/management institutes in India:** To introduce more Japanese course into their curriculum. Some institutes have made mandatory to learn a foreign language in their curriculum and Japanese language may be the hot favorite if proper awareness are made among the students.
- **Authorities at IBM India:** To create more awareness in institutes regarding Japanese related projects and its opportunities in the coming years.
- **Other competitive companies:** Hire more people in India having Japanese skills as well as hire people in Japan. Also training them in Japanese language for certain technological aspects.

*It is only recently that Japanese companies are more open to outsource their IT services from India due to prevailing tough economic conditions at home. Outsourcing can improve operating efficiency and can also improve business performance. Many Japanese companies are now aligning themselves with cost reduction policy therefore bringing the outsourcing opportunities to Indian IT industry.*

Q3. Is there freedom of choice available?

- An employee, having adequate Japanese exposure and technological skills can work on-site or off-site depending upon the project requirement as well as his comfort.
- Also the employee can work for multiple challenging projects at a time if he/she is capable and comfortable to do multiple projects simultaneously.
- Also the employees can Join IBM Japan for betterment of his career prospect.

### Process

Q1. What is being done?

- The IBM India is hiring persons having Japanese language skills as well as technological know-how.
- To increase the number of Japanese language skill person IBM India has started recruiting people from

Japan directly. But it is becoming more expensive and economically not to much viable.

- The authority is also trying to encourage its existing employees and new recruits to undergo the Japanese language skill tests like JETRO/JLPT exam.
- Also to cope-up with the short fall, the IBM India is also trying to recruit employees from language institute directly and giving them the technological training. But in most of the cases the person in this category is not interested or scared to learn the technological skills.

Q2. What should be done?

- The IBM India authority should concentrate more on recruiting more people having Japanese language skills.
- They should also give some extra benefits to the employees who are willing to take the Japanese Language skill tests like JETRO/JLPT etc.

- IBM India should run some courses jointly with the premier institutes with adequate exposure to Japanese language as well as Japanese culture and those student willing to take the course can directly join IBM India for Japanese related project.

- To encourage the employees related to Japanese projects, they should also be given chance to visit Japan so that they can properly understand their culture.
- Also the authority should focus their attention to recruit experience persons with adequate Japanese exposure inorganically from other companies giving them more incentives and more challenging projects.

Q3. What else should be done?

- IBM India may start a language school in collaboration with the premier institutes like IITs / NITs etc. And the pass out from this school can be directly recruited in IBM India as the Japanese language expert.
- Also there should be frequent interaction with the IBM India employees and IBM Japan employees, not only in the managerial level but also in the lower level.
- There should be some feedback mechanism so that the employee in IBM India doing Japanese related project can express their willingness and suggestions to improve their language skills as well as their expectation from the company.
- Also IBM India can recruit some employees from other south-east Asian region for language purpose because they will be cost effective (as compared to recruiting Japanese people) as well as they will be able to learn

Japanese language quickly as compare to Indian employees.

- The IBM India should take IBM Japan into its confidence so that they are able to get more projects for IBM India.
- They should also closely observe about the strategy their competitors are taking to match the demand and supply gap.

### Learning

Q1. What is the key issue related to the situation?

The main learning issue can be pointed out as follows:

- Lower number of people in India having Japanese language skill as well as having technological know-how.
- Increasing number of Japanese related project.
- People are scared to learn Japanese language as if it is too much difficult.
- Students are unaware regarding the scope of Japan related projects and the advantages they would gain after being learned Japanese language.
- High attrition rate of persons knowing Japanese language as well as having technological skills and adequate IT experience (normally 10-15 years).

Q2. What are the key issues related to the actors?

- Management of IBM India are aware regarding the shortfall of Japanese language known people but they are not able to cope-up with this situation.
- The project managers are facing problem to execute the Japanese project on time because of unavailability of proper persons.
- The competitors are aggressively recruiting the people knowing Japanese language as well as having technological skills as a result the cost of recruiting of proper person is increasing which is directly impacting the profitability of the project.
- The employees who are related to Japanese project are demoralizing if they are not given better initiatives than their counterpart. But if they are given more and more initiatives then their counterpart may also be demoralized.

Q3. What is the key issue related to the process?

- Deficiency of the Japanese language known people in India having adequate IT exposure.
- Higher number of Japanese related projects coming to IBM India and other similar organizations.

- Unawareness of the students as well as existing employees regarding the scope of Japan related project.
- High attrition rate of Japanese language known people having adequate IT experience.
- High competition from IBM China.

### Action

Q1. What should be done to improve the situation?

- Make awareness regarding the Japan related projects among the students.
- Give extra incentive to the students having Japanese skill set.
- Make sure that IBM India giving the maximum benefits among their competitors to their employees engaged in Japanese related projects.
- There should be some agreement between the institutes those are interested of opening up Japanese language course and IBM India regarding the mutual co-operation between them.

Q2. What should be done to improve the actors?

- The IBM India employees working on Japan related projects should be given some extra incentives.
- There should be some online training courses exclusively for IBM employees who are interested to learn Japanese language and are willing to work in Japanese related projects.

- The employees should properly be informed regarding the opportunity for Japanese related project.

- The employees should be given chance to go in Japan and learn their culture it may further encouraging them to involve in Japanese related projects.

- IBM India can open Global Delivery Centre exclusively for Japanese related projects that may motivate the students and other employees to join there and also it may also attract attention from the other persons regarding importance IBM India is giving regarding Japanese Projects.

Q3. What should be done to improve the process?

- Attract more and more people in Japan related project.
- Recruit people organically and inorganically so that there should be no shortage of Japanese language knowing people.
- Create more awareness among concerned persons.
- Ensure all the Japanese projects should complete on time.

*The Japanese market now contributes only 4% of the total export of Indian software to different destination. So there is a tremendous chance of growth of export of Indian software services to the Japanese market as more and more companies are focusing their attention to the Japanese outsourcing market as to reduce the over dependence to the US market.*



Performance

Q1. What will be the impact on the situation?

If all the proper actions be taken on time then the performance of the overall system will improve tremendously and the company can have the following advantages:

- More and more Japanese project will come to India.
- IBM India will earn more revenue and the profit will increase.
- IBM India will get an edge over IBM China.
- It will encourage IBM Japan to outsource more projects to India which in turn would increase the profitability to the IBM Global.

Q2. How will the actors be affected?

- The employees would get opportunity to work in more challenging Japanese projects.
- They will get more benefits by working in Japanese projects.
- The employees would get exposure to work in different culture.
- IBM India can diversify its footprint into different geographic locations.
- More and more people will get employment in IBM India for Japanese projects.
- Also if there be any agreement between institute those are interested in starting Japanese language and IBM India then those institutes will not have to think regarding the financial aspects and the student will get assurance regarding their employment and IBM India would get well prepared students who are able to execute the Japanese projects and will be productive from day one. Hence such agreement will benefit all the concerned parties.

*The SAP-LAP model (Situation Actor Process–Learning Action Performance) is an innovative and holistic framework for case analysis.*

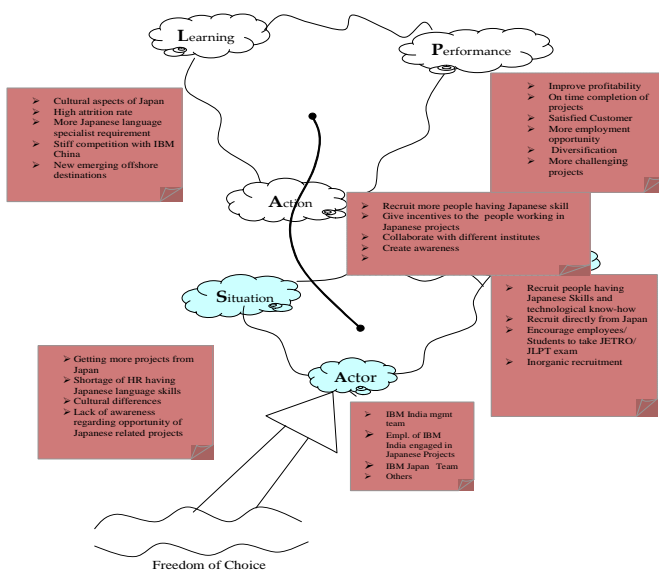


Figure 5: SAP-LAP Analysis

Root Cause Analysis

The root-cause diagram is a tool by which we can find out and analyze the different reasons of a problem. Here in this case though there is a huge opportunity in the Japanese market but IBM India still do not have a very good market share of the Japanese outsourcing market. So now we shall discuss the reasons behind this lower penetration of IBM India in the Japanese software service outsourcing market. The reasons can be discussed as follows:

- **Lack of resources:** Here the human resource is the main factor. Though there are numerous Japanese projects are coming to India specially IBM India, but because of the shortage of people having Japanese language skills with proper technological capability IBM India is facing major problem.
- **Infrastructure problem:** Though the telecommunication sector in India is booming for a quite few years but still the band-width cost in India is quite high and as a result it is increasing the overall cost of delivery of the project. Also the Government bureaucracy and slow progress in decision making and implementation of infrastructural project is also another problem. Also the communication between India and Japan is quite bad. There are only few direct flights between these two countries compare to China and Japan so it is also another reason for poor penetration to the Japanese outsourcing market.
- **Threats from industry competitors:** Today there are various competitors of IBM India to get the Japanese outsourcing project. Though the Chinese counterpart is getting little bit advantage because of the geographical proximity and cultural and lingual similarity but they lack the quality of manpower. Also the Indian IT Giants have opened up their offices in Japan to get the outsourcing projects so there is a little bit threat from these players. So there is a quite big portion of Japanese software outsourcing contract is going to these Indian player. Also day by day the number of competitors from the other South-East Asian countries is looking aggressively to the Japanese software outsourcing market. So a big amount of outsourcing orders is going towards these countries.
- **Difference in culture:** There is a big difference between the Japanese working style and Indian working style. Also these two countries have problems in understanding their language. The Chinese people have much more advantages than the Indian people in this regard. In India a very few people know much about the opportunity, available in the Japanese outsourcing market. So the information about Japanese culture and the market potential for Japanese outsourcing market is known by a very few people. So these are some of the barriers that IBM India is facing for handling the Japanese outsourcing projects.

- **Operational hazards:** The operational hazards in executing the Japanese projects are the outcome of the above discussed problems and all these contributes to the lower penetration to the Japanese market by IBM India which has been shown in the following figure.

**The Root-Cause Analysis**

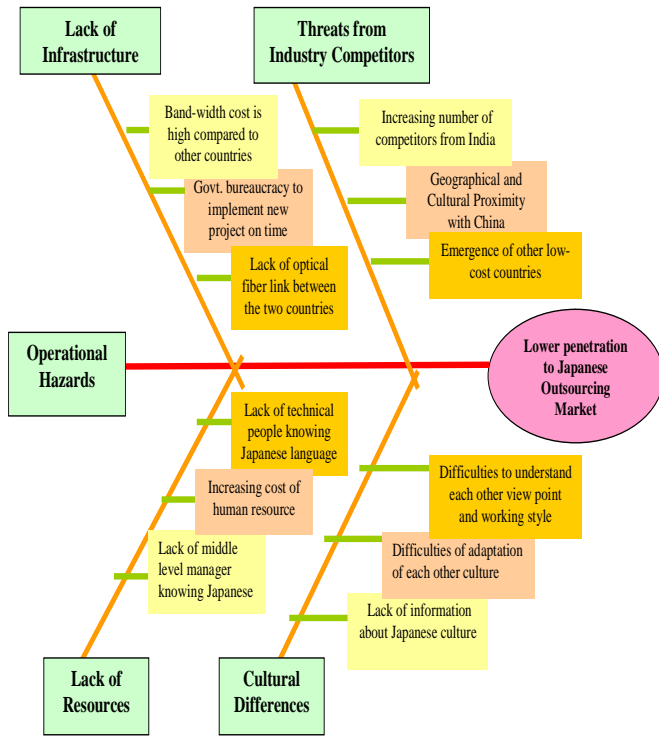


Figure 6: The Root Cause Diagram

**Managerial Implications**

There are many challenges faced by multinational companies in working with the developing countries. There are certain advantages that those companies enjoy which are truly global in nature. And IBM is one of such company that is global from each and every aspect. For most companies, the biggest challenge is ensuring the vendor has tools, processes and competencies that are consistent across their operations and with the clients'. Other major challenges are effective governance of the work as well as risk mitigation between and within countries. Since IBM has been a global company for decades, it has experienced operating in a consistent, stable manner around the world.

As discussed in this article, IBM India is getting various Japanese projects from IBM Japan but it is now facing problems as the resource is limited and the attrition rate is increasing year after year also the salaries of the employees are increasing very rapidly. As a result the cost overrun and

*For most companies, the biggest challenge is ensuring the vendor has tools, processes and competencies that are consistent across their operations and with the clients'. Other major challenges are effective governance of the work as well as risk mitigation between and within countries.*

the problem of completion of projects at stipulated time period is becoming a great concern for IBM India. Here below the various problems IBM India is facing to execute the Japanese projects successfully have been listed.

- Deficiency of the IT professionals having adequate Japanese language skills.
- High attrition rate. (It is happening across the IT industry; in 2005 the average attrition rate was about 10%)
- Non availability of middle level manager having experience of handling the Japanese projects.
- Increase in salary of employees, particularly to the middle level manager. (In 2004 the average increment of middle-level manager was 20% and in 2005 the average increment of middle-level manager was about 40%)
- Project cost and duration overrun. (The average Japanese project that has been executed so far in IBM India at Pune is about 4 to 6 month)
- Non availability of proper resources at the time when it is desperately needed by the company for execution of the project.
- The other competitive companies are strongly focusing on the Japanese outsourcing market and they are opening up their subsidiary in Japan to tap the market.
- The IBM China factor is giving IBM India greater challenges.
- The differences in the culture between India and Japan and the similarity of culture between China and Japan.

**Measures to Improve Efficiency of Japanese Projects**

There are various kinds of necessary actions those can be taken to increase the efficiency of the process. The followings are some of the actions that can be taken by IBM authority:

- Increase the number of technical specialist having Japanese language skill set.
- Train the existing IT professionals into Japanese language.
- Increase the opportunity of IBM professionals to visit onsite projects in Japan.
- Create Japan specific department.
- Hire more Japanese professional to fulfill the immediate demand.
- Brand IBM India as an outsourcing hub for Japanese outsourcing projects.
- Concentrate more on completion of project on time with quality output.
- Try to bridge the cultural gap between IBM India team

and IBM Japan team by frequent visit to each other countries.

- Create much awareness among fresh IT graduate towards the opportunities available in Japanese outsourcing projects.

### The Recommended Future Plans of IBM India for Japanese Projects

Here we briefly discuss about some of the future plans that IBM India should focus on. The future plans of IBM India can be summarized as

- To make IBM India the biggest outsourcing centre to execute the Japanese projects.
- To have a much bigger size of Japanese speaking people in their delivery centre.
- To start some of the short as well as long term Japanese courses.
- To have more onsite IT professionals based in Japan.
- To make the IBM India a brand which is capable of execute any type of Japanese project that may require any type of skills i.e. Japanese language skills as well as technical skills.
- To make aware of its existing employees about the opportunity available in Japanese IT outsourcing projects.
- To give more importance to the quality of work.
- To make sure that, not only IBM India acts as a low cost destination for inferior Japanese projects but also it can execute high quality Japanese outsourcing projects.
- To arrange more tours of IBM India employees into Japan to get the ideas of Japanese culture and their working styles.
- To give more emphasis on proper resource deployment and completion of Japanese project within the specified time period.
- To reduce the fair about learning of Japanese language among the interested candidates.
- To bring more and more Japanese projects having bigger sizes.
- To get some periodic feedback of employees, who are working on Japanese projects, and take necessary actions according to their feedback.

*This article serves as a useful frame of reference to analyze the Japanese outsourcing opportunity and the problems faced by IBM India to execute those Japanese projects.*

operate with a level of flexibility commensurate with the uncertainties faced in the external environment. Marketers need to assess the flexibility of their client's information system organizational structure. Lack of intermediate and long-term goals in the information system function can hinder information dissemination.

In 2005 the total turn over of IBM Global was approximately \$90 billion and India's share was about \$1.5 billion that is about 1.5% of the total turn over. On the other hand IBM Global services turnover in 2005 was about \$47 billion and India's share was about \$1 billion. Out of about 3, 00,000 employees, India accounted only about 40,000 employees i.e. about 16% of the total head count. It is forecasted that by 2010 the total head count in India would be about 92,000 and that will be about 30% of the total headcount of IBM Global. Further contribution of IBM Global service as a percentage of total turnovers would rise from now about \$50 billion (i.e. about 50% of the total turnover) to \$85 billion i.e. about 67% of the total turnover. Experts believe that the Japanese market will make a significant part of it.

The SAP-LAP analysis, SWOT analysis and the Root-Cause analysis, all these tools have been used in this article for analyzing the outsourcing phenomena focusing on the Japanese outsourcing projects and the different types of problems faced by IBM management to cope up with these problems. This article serves as a useful frame of reference to analyze the Japanese outsourcing opportunity and the problems faced by IBM India to execute the Japanese projects.

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### Conclusion

An increasingly competitive environment is forcing many organizations to evaluate the feasibility of outsourcing the information system function (Audley Harris Larry C. Giunipero, G. Tomas M. Hult, 1998). Organizations need to



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### Key Questions

What is the motivation for Indian Companies to be a part of the Japanese IT/IS Outsourcing Market?

What are the possible risks and benefits for Japan to outsource from India?



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