



Outsourcing Software Development

A Discussion Document

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1. Introduction

Milan Outsourcing have been in discussion with a number of clients to provide a number of IT Solutions.

One subject of discussion has centred on the concept of *outsourcing* and in particular to setting up of offshore centres, in countries such as India.

There are now many well-documented examples of the use of offshore labour and the subsequent benefits, that this subject merits a deeper look.

This document serves to make companies aware of outsourcing and outsourcing models.

Finally it shows how Milan Outsourcing can help them achieve the benefits of outsourcing via the use of its DualShore outsourcing model.

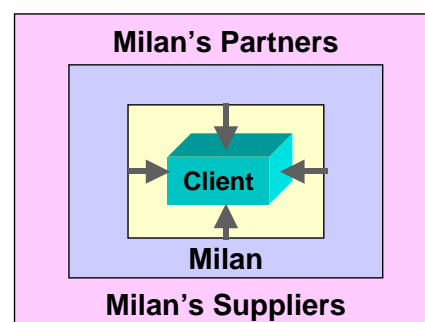
2. Milan Outsourcing

Milan Outsourcing was formed in 1999 to provide IT effectiveness solutions to industry. The initial focus was in banking and finance, but thanks to increasing demand from other industries, we are moving to offer a broader spectrum of services to a wider clientele. Our mission is to

“Provide lower cost and high quality Software, Services and Resourcing solutions to companies worldwide by using the best skills available locally and globally”.

2.1. Business Model

Our business model allows us to serve both small/medium and also large global organisations. To complement our own business and technical abilities, we have formed a number of specialist key supplier/partner relationships worldwide. These relationships allow us to scale up for large assignments and also give us access to specialist technical skills. Many of our partners are based in offshore environments and this aspect allows us access to a vast pool of IT professionals at a reasonable cost. Where possible, we pass on these cost savings to our clients, thereby making our services even more attractive.



Our partners always work with us seamlessly in a Milan team and share the same values, ethics and customer service focus.

2.2. Solutions Offered

Milan offers outsourcing solutions across the software and IT services spectrum. For a fuller description please visit www.milansolutions.com.

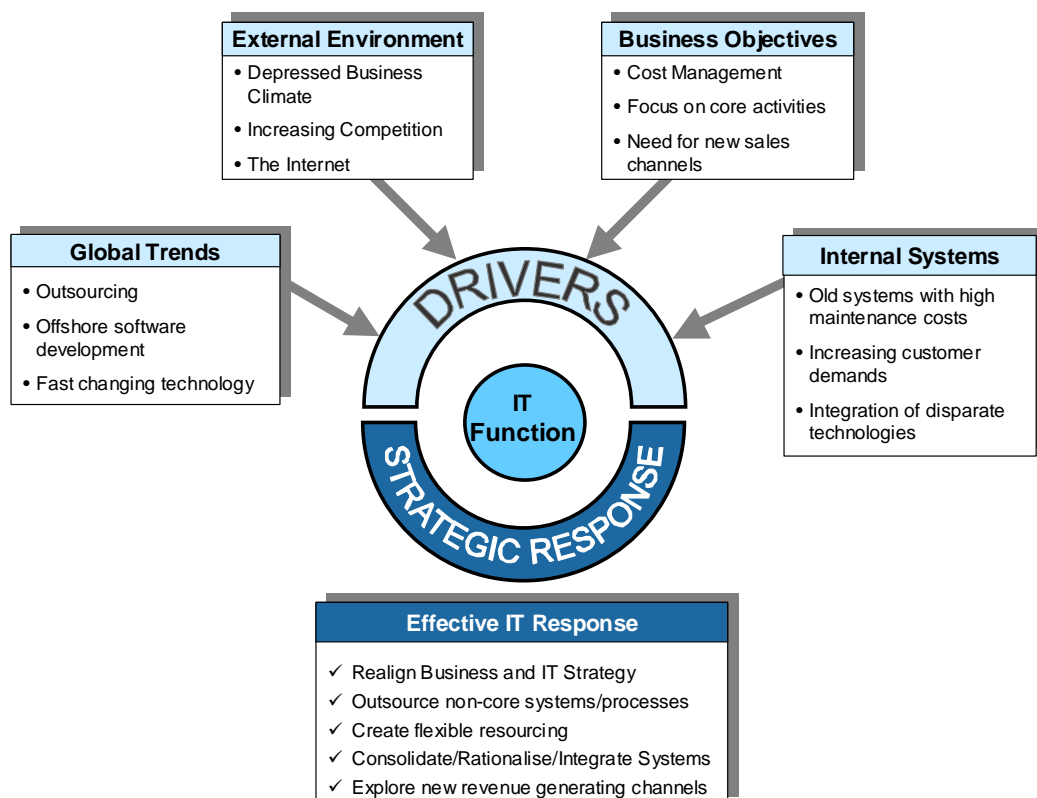
3. Outsourcing – an Effective Response

3.1. Internal and External Drivers

We live in a complex world, where conventional wisdom is being increasingly challenged by new paradigms. Businesses have increasingly turned to Information Technology to effectively deal with this changing worldview.

Being effective means dealing with the pressure of a complex web of internal and external factors and constraints. This pressure is perhaps at its highest now, as technology is moving at an increasing pace to make the world more interconnected and thus smaller.

We see four broad areas that provide drivers for the challenge that the IT function faces today. These relate to: *Global Trends*, *External Environment*, *Business Objectives* and *Internal Systems*. The diagram below illustrates how these drivers act on the IT function to elicit an intelligently coordinated response.



It is clear that a coordinated response is required to meet these challenges. One response that has proven effective over the last ten years is that of **Outsourcing**. According to the Gartner Group:

“ Outsourcing, as a business strategy and a relationship model, has evolved over the past decade to become a dominant force in the IT industry”

3.2. Role of Indian Companies in Outsourcing

Indian software companies have carved out a niche for themselves in this marketplace. This is illustrated by the following statistics from NASSCOM (National Association of Software and Services Companies), India:

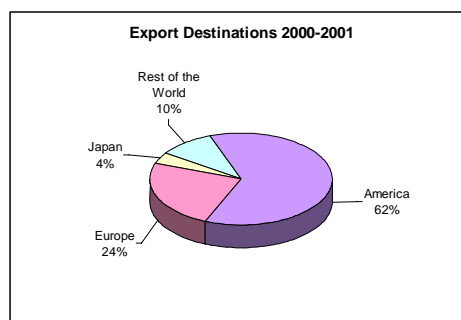
- In 1999-2000 more than 185 of Fortune 500 companies, i.e. almost two out of every five global giants, outsourced their software requirements to India. This figure must be close to five out of five now!
- India's software exports gross \$32 billion for 2007-2008
- The benefits of software outsourcing to customers from a cost management perspective alone is worth 25-45% of their cost base.

Furthermore outsourcing comes with *increased quality*:

- Out of companies worldwide holding SEI CMM Level 5 certification, 75% are located in India. SEI CMM stands for - Software Engineering Institute Capability Maturity Model, a higher quality guide than the traditional ISO9001 certification.

3.2.1. Outsourcing from Europe

- During 2000-2001, the Indian software exports were estimated to be 62% to North America (USA and Canada); 23.5% to Europe; 3.5% to South East Asia; 3.5% to Japan; 1.5% to West Asia; 1.5% to Australia and New Zealand; and 4.5% to Rest of the World.



- Europe is fast recognising the competitive advantage that would accrue to its economy by aligning with Indian software companies. The shortage of skilled manpower in Germany, Austria, UK, France and Italy has resulted in the process of liberalisation of work permit requirements and sourcing of skilled manpower from India.
- In fact the UK was the most favoured destination of Indian software exports to Europe.

3.3. Benefits of Outsourcing

There are significant benefits to outsourcing. Some of these are:

- **Reduction in costs:** Outsourcing models bring cost reductions to the tune of 25-45%
- **Scaling up/down:** Scaling up and down of resources is easy with an outsourcing partner. Often companies may commit only to a core team on long-term basis.

- **Freeing of resources:** The customer is able to re-deploy its precious key resources into other productive areas rather than running day to day IT chores.
- **Access to vast skill sets and services:** India has the second largest pool of technically qualified English speaking manpower (second only to the United States) available at a comparatively low cost. In addition, India's advantage is that it can offer a wide range of software services from clerical/support/data processing to sophisticated software systems.
- **State-of-the art technologies:** Indian software companies have been at the forefront of the use and application of the latest technologies such as the latest in customer-networking, e-commerce, Internet and IP based communication software.
- **Location advantage:** Due to India's location there is a time related advantage for western companies. In Europe the advantage is of half a day (approx 5.5. hrs), this means that when work/queries are sent to Indian operations in the evening, the answers are usually there by 0900 the next day UK time.
- **Project management skills:** Indian companies have a rich experience of working with large global software companies. The forced subcontracting of large Y2K projects has also provided Indian companies with substantial experience in handling and executing large sized projects.
- **Infrastructure facilities:** Though India does not have the best infrastructure in the world; the IT industry has enjoyed the use of satellite links and high-speed communication links of 32-256 kbps, connecting them with their customer's abroad.

4. Outsourcing Models

Some outsourcing models that are in operation today are discussed below. It is wise to distinguish between **outsourcing models** (project, resource split and organisation) and **Software Development Methodologies** (the process followed to carry out the work – whether in the UK or offshore). Here we only discuss outsourcing models in reference to the UK. The variables that come into play when devising outsourcing models are:

- Quality of service and delivery
- Potential cost and cost savings
- The nature and complexity of the work and service required
- Communication mechanism

Outsourcing models have grown and are now entering the fourth generation.

4.1. 1st Generation - everything onsite/in the UK

In this model, the primary driver is to maintain high quality of service delivery. The vendor is situated in the UK, with a large onsite team at the customer's premises.

SWOT	Analysis
<i>Strengths</i>	High quality of service provision
<i>Weaknesses</i>	High costs, reduced benefits due to usage of space at customer office, benefits only realised in very large operations in the longer term.
<i>Opportunities</i>	Can pass on own staff to vendor, with minimal change in their working conditions, easier communications
<i>Threats</i>	Reduced benefits in cost and time/locational advantages, difficult business case

Examples are outsourcing to companies such as EDS and IBM and these are best used for data centres and where significant staff need to be transferred.

4.2. 2nd Generation - everything offshore

In this model, everything is offshore. The primary driver is to reduce costs to a bare bone. In this scenario, there is a bidding war and the lowest price wins the day (assuming all other things are equal). Cost savings can be 50% and even higher if the numbers of staff are higher.

SWOT	Analysis
<i>Strengths</i>	Lowest costs, everything offsite, internal staff and space savings
<i>Weaknesses</i>	Service quality, communications, potential production disasters, too much time spent in reviews and performance measurement
<i>Opportunities</i>	Chance to get rid of drudgery work
<i>Threats</i>	Lost opportunity in terms of using outsourcing partner, as a partner in terms of ideas, adding value etc. They will slowly reduce the quality of the staff over time as best staff will be allocated to higher revenue generating assignments

Examples include early outsourcing adopters. Now best used for mostly low value operations such as the outsourcing of call centres and email support centres. These are called *IT enabled services* and include things like medical transcription.

It seems natural to find a middle ground. And yet, so many companies adopt the lowest cost model and then get their fingers burnt.

4.3. 3rd Generation - a mixture of onsite/offsite and offshore

The middle ground solution provided by Indian offshore companies is working to a large extent and many companies have reaped the benefits of outsourcing to Indian offshore companies. But a good model is not sufficient to succeed, it is only a pre-requisite.

Even in this scenario – there are complex issues, not least in deciding what to keep here in the UK and what to send offshore. In our experience one scenario that has worked is as follows:

- Local account management via Indian company’s UK offices
- Local and offshore project management
- Initial local business analysis
- Offshore domain knowledge
- Local learning using offshore staff
- Offshore development, unit testing, documentation
- Onsite integration and implementation testing
- Strong QA offshore
- Frequent local visits by offshore management
- Clearly defined communication channels and progress meetings

The Local Element

Even Indian outsourcing companies have realised the importance of local contact and have started to open up offices in the UK. But there are clear hurdles in using Indian staff in a UK operation. There are cultural and business style issues, which are critical in terms of communications and ultimate service.

SWOT	Analysis
<i>Strengths</i>	Good cost savings with relative maintenance of high quality of service, can outsource in stages after gaining comfort
<i>Weaknesses</i>	Use of offshore staff in UK offices is sub-optimal, domain knowledge is offshore, which is traditionally weaker than in the country being outsourced from.
<i>Opportunities</i>	To build on the operation and to iron out weaknesses
<i>Threats</i>	Tie in to one offshore company longer term can have its risks; significant management overhead and ‘trust’ issues

Examples include, a very large number of successful operations today, such as British Airways. There are a number of Indian companies with UK offices, primarily staffed with Indian staff on assignment here.

4.4. 4th Generation outsourcing

Milan has studied the deficiencies of the above models and has devised, what we believe is a *superior* model, and one that addresses *ALL* the concerns whilst passing on advantages to the customer.

The 4th generation outsourcing model uses UK trained, UK based local staff and has a number of key features. Some key features that make it different from the 3rd generation are:

- **Local UK company:** We firmly believe that a local UK company, staffed with UK staff is required to offer truly excellent service and communication. The financial world, in particular is mission critical in its nature due to the nature of the product it is handling – *money*. There can be no compromise on quality, *as the price of a single failure can often outweigh the savings due to outsourcing in the first place*.
- **Local domain knowledge:** Finance in particular is a difficult domain and specialist staff are hard to find and retain in any event. Service quality will suffer via the use of only Indian staff. We aim to use UK trained banking staff with experience in the specific domains necessary – in this case front office, back office, derivatives, equities, etc.
- **Local Account and Project Management:** We use high quality account and project managers, with experience of UK based companies in the financial domain. Our Local UK based account managers can come onsite to the bank at short notice, and work with the bank in a partnership to jointly identify further work and iron-out problems in the existing operation.
- **Reduced management overhead:** Though there is some overhead in managing any external supplier, and we naturally will be one, we aim to manage the offshore operations ourselves and supply audit and progress reports to the bank.
- **Local contracts and IPR protection:** So often, contracts are based in the offshore domain, creating hassles for UK customers. IPR protection can be a real issue. Milan is accountable in UK law, and will provide guarantees for IPR protection, as necessary.
- **Reduced dependence on single offshore providers:** Our business model means that we have our own offshore company plus we work with partner companies to harness their strength. Very often, an offshore company will claim to be able to do anything, just to win the business. We have experienced this ourselves as ‘buyers’ of using offshore services. By dealing with us, you insulate yourselves from the offshore aspect, whilst enjoying the benefits. We will bring you the benefits by combining the best teams and using the best available infrastructure. This provides you with an opportunity to scale up, as no one company can become a constraint.
- **Maximum use of local staff:** In our experience it is best to harness the benefits of local staff in their environment. This is where they are best. We have teams of people who act as the glue between these two environments. These people are a mix of UK and Indian staff, but have real UK user experience.

Other standard features of this model brought over from the 3rd generation are:

- Local UK account and project management
- Local business analysis and specifications
- Local learning onsite and off site of mixed local and offshore staff
- Offshore development, unit testing, documentation

- Onsite integration and implementation testing
- QA at both places
- Frequent local visits by offshore staff
- Clearly defined communication channels and progress meetings

SWOT	Analysis
<i>Strengths</i>	Maximum benefits with maintenance of highest quality of service. Local accountability and communication can outsource in stages after gaining comfort. Reduced management overhead for customer.
<i>Weaknesses</i>	Slightly reduced savings – due to UK involvement, but these grow with the size of the project. Reduced benefits are best seen as QA costs and heavily offset by improved robustness, reliability and smoothness of operation.
<i>Opportunities</i>	Can derive maximum added value, from working styles of both countries, and build a long-term relationship. Can scale up significantly due to reduced dependencies.
<i>Threats</i>	None that we are aware of

This model is validated by companies such as MBT (Mahindra British Telecom) and HCL Perot (Hindustan Computers Ltd and Perot Systems) who have set up subsidiaries with UK based staff.

4.5. When not to Outsource

There are also times when outsourcing is not a solution. Some of the areas that are not suitable for outsourcing include:

- **A highly productive area:** that is delivering excellent results and outperforming its competitors should be left undisturbed.
- **Core Competencies:** A core competence defines what a company is about, what sets it apart from its competitors, and what makes it successful.
- **Systemic problems:** Many IT organizations and companies suffer from systemic problems, complicated politics, or internal "rot" that extend beyond departmental, functional, or process boundaries.
- **Unrealistic expectations:** Before outsourcing, an IT organization must fully, and realistically, understand the responsibilities and benefits of an outsourcing relationship. If the organization expects unrealistic levels of performance from its outsourcer, or fails to appreciate its responsibilities to support the outsourcer, the relationship is doomed to failure. Typical errors include establishing draconian performance requirements, setting cost structures that preclude the outsourcer from making a profit, and placing operational constraints on the outsourcer's improvement efforts ("That's the way we've always done things here, and you'll do it the same way!").

5. Offshore Development Centres

By experiencing the benefits of outsourcing, many clients graduate to Offshore Development Centres (ODCs). ODCs can range from small teams of 10 people to very large dedicated sites housing hundreds of IT staff. An ODC can be set up to within a vendor's premises, or by a wholly owned operation or a joint venture.

5.1. Virtual Teams

The globalisation of corporations has created the need for 'virtual project teams' to operate cohesively across the world.

In multinational corporations, very often the users are in one part of the world, and the technical staff may be in another. In that sense, most organisations are already operating *virtual teams* with some success.

Such teams allow corporations to harness their skills base, wherever they are in the world. This is an effective solution (though sometimes expensive) to managing expertise and deploying it where needed.

5.2. ODCs

An Offshore Development Centre (or ODC) allows you to harness the benefits of virtual teams, and yet minimise the cost, by basing it offshore. The most common use of ODCs is to Develop, Test and Maintain IT software, but their use is growing in other areas. Some recent examples include their use for:

- Airline ticketing
- Call Centres
- Email Help Desks
- Information conversion
- Business process outsourcing such as:
 - Insurance claim processing
 - Accounting and reconciliation functions
 - Credit card application processing

ODCs allow access to highly qualified staff at a fraction of the price. The quality of work can be and usually is, of a higher quality than normal, but this has to be achieved by constant attention to good work specification, progress monitoring and management of time and cultural issues to create a common 'team spirit'.

An ODC usually comprises of a:

- Dedicated facility to a client's work
- Dedicated team of people
- Dedicated hardware and software infrastructure
- Dedicated high-speed communication equipment
- Physical and network security
- IP protection mechanisms
- Well defined offshore development software facilities

Examples of successful ODCs

One very good example of such an operation is Citibank. Citibank has set up COSL (Citicorp Overseas Software Ltd) to centralise the outsourcing in India. In fact COSL staff are seconded all over the world in Citibank IT offices. An extract from their web-site says the following on the method of working:

“The methodology adopted includes a mix of on-site and off-site activities. The feasibility study, requirements gathering and analysis are activities that are typically performed on-site in close interaction with the customers and end users. System design, construction and system testing are performed off-site in Mumbai, Hyderabad and Chennai. COSL also participates in the User Acceptance Test and Implementation of the system on-site. A strong focus on processes and adherence to standards ensures that the quality objectives are always met for the delivered solution.”

In fact COSL has just merged with another Citibank division to form a new company called ‘Orbitech’, which is planning an IPO. It will then offer its services to other financial companies.

Other companies that have successfully created ODCs include:

- Lucent Technologies
- AIG
- American Express
- British Airways
- Nortel
- Capital Bank
- Prudential
- Citibank
- General Electric
- Microsoft
- Hewlett Packard

5.3. Benefits of an ODC

Owning your own facility, can often bring greater benefits than traditional outsourcing. Due to the dedicated nature of the set-up, clients can enjoy:

- Improved security
- Increased staff continuity
- Improved knowledge retention
- Increased corporate commitment
- Improved control of the system development lifecycle process
- Benefits arising out of the creation of a similar culture
- Access to better talent in the longer term, as many staff wish to work for a large multinational company, with the ensuing benefits
- Lower costs in the medium to longer term

6. Outsourcing for you

This being discussion document, its purpose is to raise awareness of outsourcing and ODCs. We see enormous benefit for companies.

In the initial stages, we would encourage companies to try the standard outsourcing route to start experiencing the benefits of offshore software development.

In parallel or some time later, an ODC arrangement can be established, where a dedicated team of people can be set up, ring-fenced and run with standards equal or better than theirs.

6.1. Potential Outsourcing Candidates

Initially any of the following activities could be outsourced:

- Software development
- Maintenance
- Set up a team to assist projects globally
- Testing activities
- Migration work

Later candidates could be:

- Accounting services
- Resourcing services
- Credit card processing

6.2. How Milan Outsourcing can help

Milan Outsourcing is a UK based company specialising in bringing the benefits of outsourcing to UK and European clients.

We can help companies understand and take advantage of the skills and resources of the Indian sub-continent. In a way, **we bring the world's resources to you, locally**. We achieve this by offering a local service and an in-depth business domain understanding.

Very often western companies can be frustrated dealing with Indian companies directly. Our use of the latest 4th generation outsourcing (see section 4.4 above) allows us to harness the power of the offshore environment, but deliver it in a way that you are used to – **high quality at lower prices**.

We have our own subsidiary in India, and have relationships with other suppliers. This allows us to access to more than two thousand highly qualified IT professionals.

7. Summary

Today's IT manager is under tremendous pressure. The demand for new applications and major enhancements to existing applications is growing faster than ever before, yet reduced budgets and skill shortages make it extremely difficult to meet these demands.

To many *outsourcing* offshore is the only effective strategy to address this problem. Some companies have realized **80% to 150% increases in IT value generation by outsourcing IT development to India**. Offshore application development has "crossed the chasm" from an early adopter phase to a mainstream mode of development.

We at Milan Outsourcing are pleased to bring you these services, in a manner that no offshore company can. This is because of our business model, which allows us to combine the best of UK and European talent, with that from India.

We offer what our mission statement says:

"Provide lower cost and high quality Software, Services and Resourcing solutions to companies worldwide by using the best skills available locally and globally".

Milan Outsourcing.