ICT Outsourcing – models and experiences

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Abstract. *ICT Outsourcing is the way in which many companies are trying to manage their ICT or parts of it. Many different reasons drive companies to choose this particular way of managing their ICT. Various models of ICT Outsourcing can be identified; some more successful than others. Also, there are many different experiences with ICT Outsourcing: some successful and others less successful ones, which in some cases lead companies to In source ICT back into companies. There are certain important areas that need to be considered carefully during ICT Outsourcing decision making process and during maintenance of ICT Outsourcing process, to assure successful ICT Outsourcing*

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1 Introduction

The way of managing organisations is changing constantly – markets are changing, companies are faced with a challenge to operate on global markets and to compete with more and more competitors. In those conditions managers and organisational strategists are trying to find the best way how to organize and lead the companies to be able to deliver values and results

ICT is a very important part of the business organizations in all industries. Due to the constant change in the business strategies and technologies, ICT managers and companies' managers are trying to find out best way of organizing and managing ICT in a constantly changing environment. Expectations from ICT are growing. Delivering the best of breed ICT services and at the same time decreasing ICT costs is an ultimate goal for ICT managers.

Getting better value from IT is increasing business value within company and vice versa (Fig.1) The efficiency and effectiveness of an organization's IT function has become a source of competitive differentiation

Figure 1. IT & Business value chain[1]

As a result, many companies are considering one of the possible ways of organizing and managing ICT departments within companies - outsourcing all ICT department or some of ICT services to the external partners.

Within last 15-20 years ICT outsourcing has become very popular and there exist different outsourcing models. Some outsourcing deals are very successful, but there are also examples where outsourcing ICT was not so successful and companies made decision to insource ICT back into organisation. It is possible to identify reasons for such decisions and also to identify what needs to be considered prior to making decision to outsource ICT to mitigate issues and risk, and to have successful ICT outsourcing.

2 Main reasons for making decision to outsource ICT

Many business organisations are deciding to take into consideration a possibility to outsource ICT to

external partner(s). Common reasons for such decisions are:
- Companies are focusing on their 'core' business
- IT is too complex and technology is changing constantly
- Cost savings and cost control
- Managing IT is demanding

It is not too hard to imagine that a company which is producing toys or plastics for example does not want to manage complex and expensive IT when they need to focus on delivering their innovative new products or services to the market faster than their competitors, and are therefore considering outsourcing models and decide that ICT outsourcing suites them.

For example Scotiabank hired IBM Canada in an outsourcing deal worth 578.3 million over 7 years. IBM manages the bank's domestic computer operations including data centres, branches, automated teller machines (ATMs) and desktop PCs for 24000 employees. Scotiabank decided to outsource key IT functions because it wanted to focus on its core business, which is delivering financial services [2,19].

Some companies have tactical reasons for outsourcing their IT and some consider outsourcing as it is popular and in trend, which usually leads to an unsuccessful deal (without getting expected value – costs are not decreasing and/or services are poor and Service Levels are not delivered).

Beside those two types of companies, there are others for which ICT is a competitive advantage and a strategic function, and it is not likely that they will decide to outsource their ICT.

Outsourcing IT is not a simple decision and lot of aspects needs to be taken into account to avoid making a wrong decision and wasting a lot of time and money.

2.1 Expected benefits

Companies are starting with such significant change process to get some benefits from doing the business differently in one or the other way. They are also expecting benefits from IT Outsourcing.

From a different point of view (buyer/supplier or company which is receiving services/outsourcing partner), there are some expected benefits from both parties, and of course, there are some common benefits.

2.1.1 Buyer (customer)

Expected benefits form a buyer's perspective are
- Enabling the organisation to focus on its core business
- Possibility to focus on new business development
- Ability to change faster
- Quality and service expertise
- Financial advantages (lower IT costs)
- Flexibility and Control
- Improved service

2.1.2 Supplier (provider)

In the outsourcing relationship suppliers can have their own benefits:
- Revenue growth
- Focus on a core competence and greater specialisation in the service provisioning
- Economies of scale
- Ability to deliver improved IT support
- Acquire additional competences
- Move to be more competitive

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3 How to mitigate the risks of making wrong decision

From the beginning of the preparation for the decision making process it is necessary to define all phases of the project, try to predict possible points of failure, identify risks, prepare analysis how to mitigate them, evaluate vendors, define service levels and contract.

It is proposed to all organisations that, prior to making a decision on outsourcing, they consider some very important issues such as the following:
- setting initiative as a project
- defining and understanding the objectives
- selecting outsourcing candidates
- benchmarking
- business case analysis (with options, benefits, cost analysis, affordability analysis, commercial case and risk management)
- developing communication strategy (in-house and outside)
- staff transfer – very sensitive
- choosing service provider evaluating all aspects
- defining service levels
- contract maintenance, etc.

It is very important form the early beginning to analyse 'what if' worst case scenario happens – e.g. a customer wants to break the contract because of poor service provided or any other objective reason – it is necessary to have a back up plan for those situations.

By identifying all possible risks from the beginning of the process of consideration of the outsourcing possibility, throughout the project decision making process, the formalisation, the realisation, the managing of the relationship and monitoring performance phases, companies will be able to find out how best to avoid those risks and be prepared for such situations (putting all conditions into contracts and formalizing them).

Fig.2 shows how organizations are satisfied with some of the outsourcing ICT process phases. According to this Gartner analysis from 2006 the lower rate of satisfaction is identifiable for outsourcing strategy development, assessment and risk analysis, and higher rates for evaluation and selection of outsourcing vendor(s).

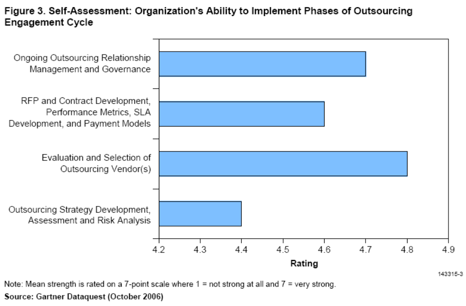


Figure 2. Self assessment – outsourcing engagement cycle [3]

4 ICT Outsourcing models with examples

There exist various ICT outsourcing models with new models being developing constantly. Fig.2. illustrates what is considered as ICT outsourcing (Busines Process Outstourcing (BTO) and IT Outsorucing ITO)

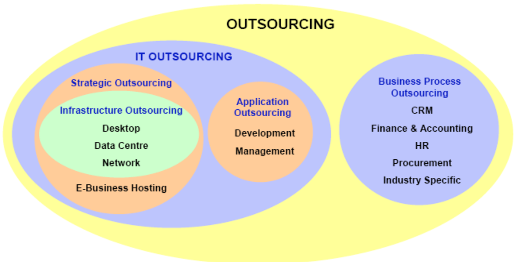


Figure 3. Outsourcing structure [1]

ICT outsourcing models are evolving and many different terms have been adopted to describe various sourcing models.

4.1 Facilities management

In this model IT assets are owned by a customer, but services and maintenance of those assets (all operational and system programming tasks, but not the development of applications) are provided by an external service provider. IT staff is transferred to the supplier.

This model is sometimes not regarded as a true outsourcing model (assets are not transferred and innovation trough application development).

Example: BT awarded a $40 million managed services deal to Unisys to run and maintain its growing consumer voicemail. Unisys is able to offer expertise and lower per-user costs. It provides 24-hour management and maintenance

4.2 Selective outsourcing

This model is the most common one. In this model only a part of IT functions is outsourced (usually infrastructure management and support).

This model if flexible and leaves customer organization to perform a lot of work by themselves and it is less risky than the total outsourcing model (when more than 80% of IT is outsourced).

A possible disadvantage of this model is spending too much time and money in managing the outsourcing projects separately.

Example: The high street bank HSBC signed a multi-million pound outsourcing deal with systems integrator Dimension Data Logistic. The 3-year contract covers procurement and technical support for the bank's Cisco network in 78 countries.

4.3 Tactical outsourcing

This model of outsourcing is referred to as contracting out or out-tasking. This type of outsourcing is adopted as a rapid and a short term solution to a particular need or a problem.

This model can be applied to specific problems that are difficult to resolve using in-house resources without delays (example: infrastructure upgrades).

Example: Archstone-Smith Trust, a real estate firm based in Colorado, outsourced a revenue management application. The application was outsourced because it requires a Unix host with an Oracle database on the back end, while Archstone-Smith uses Windows NT and SQL server for its other internal systems

4.4 Strategic sourcing

By working with one or more suppliers, the customer organisation is aiming to achieve a significant improvement in business performance rather than short-term costs saving alone.

In this model, the customer and supplier identify and work towards a mutual interest which is commonly referred to as a partnership. Both the supplier and the customer are sharing the risk and reward and are working together to achieve success.
Example: Ordanance Survey decided to spend 9 million pounds to replace its business software and implement new internal processes. A 5-year contract was awarded to Siemens Business Services to replace the existing system with enterprise resource planning and customer relationship management applications from SAP.

4.5 Transformational outsourcing

This model combines outsourcing of an IT department with a comprehensive reorganisation. In this model IT department can be 'spin-of' from the company in separate business or completely transferred to an external provider (all internal IT employees became external provider (supplier) employees).

Example: Industrial group Invensys signed a 10-year deal worth up to $100 million per year with IBM Global Services to provide application management, help desk services and support for 29,000 workstations in several countries.

4.6 Transitional outsourcing

Companies are using transitional outsourcing to introduce major changes such as moving from one technological platform to another. In this model any of the following three phases can be outsourced:
- management of legacy systems
- transition to the new technology
-. operation and management of the new platform.

It is usual that management of legacy system is outsourced to allow internal IT stuff to focus on new technology and develop skills.

Example: United Technologies underwent a complete IT infrastructure overhaul and consolidation that cost $4.5 billion but is expected to save the company $1 billion trough efficiencies over .the next 15 years. The project was outsourced to CSC and included a roll out of 45 000 PCs, standardizing on a single back-up and recovery platform and consolidating the business critical workloads from 20 major data centres down to three. Every critical system now has a disaster recovery plan.

4.7 Business process outsourcing

Organisations are bringing specialist service companies to manage the entire business processes. This is not limited only to IT but also to the business process which is supported by IT.

The Entire function, assets and staff are transferred to an external service provider, and commonly outsourced functions include helpdesk, call centres, document processing and storage, payroll and internal auditing.

Example: Lloyds signed a 7-year, multi-million pound deal with BT Ignite to provide a range of services spanning all areas of the business including Internet banking, key financial services and service delivery. The overall aim is to improve customer service. BT provides a fully managed customer contact centre that is integrated with the bank's customer database.

4.8 Joint ventures

Some customers are deciding to set up separate joint venture organisations together with suppliers instead of classical outsourcing. The new company has its own management and both organisations are providing IT staff to work in the new company.

Sometimes joint venture organizations may be given the freedom to investigate new sources of revenue. Both organisations are responsible for the supply of resources to meet the objectives

Example: Barclays Band and LloydsTSB set up Intelligent Processing Solutions (IPSL) with Unisys to outsource the banks' cheque processing. The 80 million pound business was founded with the commercial freedom to investigate new sources of revenue such as electronic bill payment. IPSL has proved very successful and HSBC joined as an equity partner.

4.9 Benefit-based relationship

In this model the arrangement is based on both parties making an up-front investment in the relationship and they are sharing, risks and benefits.

This model is relatively new and therefore it is hard to measure its benefits and share rewards.

Example: The UK government's Employment Service formed a Public Private Partnership with EDS to deliver IT services trough a network of 1,000 job centres and 35.000 staff. The deal links the use of IT to securing business benefits as well as a payment methodology that links EDS's reward to realizing those benefits.

4.10 Insourcing (backsourcing)

Some companies retain some of their IT activities and functions in-house. There are also some examples when companies insource their IT departments back after unsuccessful outsourcing deals (in which is some other model was used)

In this model, the customer and the supplier identify and work towards mutual interests, and commonly this is referred as a partnership. Both, the supplier and customer are sharing the risk and rewards and they are working together to achieve success.

Example: JPMorgan outsourcing contract with IBM was worth $5 billion and it was signed in 2001. In 2004 JPMorgan merged with Bank One (Chicago), and company made decision to insource operations back to the company. Because of conditions signed in contracts and penalties in case of breaking the contract, this was the case of a very hard insourcing process.

4.11 Offshore Outsourcing

It is common to outsource programming and software development industries to countries like Russia, Israel, India, China, Ireland, Israel... Some other IT functions like system integration, legacy system maintenance can be offshore.

At the end of the 20th century, it was very popular to outsource to similar countries, but the expectation were not met – costs were higher than expected, way of developing software was not as good as companies were expecting. Still some big world players outsourced parts of their function to those countries

There is also nearshore outsourcing trend – outsourcing to countries which are close in the region or share a similar culture, time zone and a possibility to travel.

Example: In the UK, Channel 4 signed a multi-million pound outsourcing deal with an Indian offshore software developer to update its legacy systems.

5 Common reasons for ICT Outsourcing failure

Outsourcing is a complex business venture and it is difficult to get it right. Most organizations are not satisfied with services that they are receiving from the outsourcing partner due to various reasons (big expectation, provider failures to deliver good services...)

It is possible to identify different reasons why outsourcing fails.

5.1 Unsatisfactory outsourcing relationship

Major failures in outsourcing deals are due to a breakdown in the overall relationship between the stakeholders in the outsourcing agreement. Lot of different reasons are within this:
- loss of shared vision
- staff changes may influence in not sharing common understanding
- operational concerns dominate – less value add of outsourcing and service improvement missing
- lack of good communication from the beginning – outsourcing may be considered as a treat in customer organisation
- customers are complaining fro not getting sufficient attention from provider
-when financial and legal consideration are dominating relationship

5.2 Changes in the business environment

Majority of outsourcing contracts do not have the capability to accommodate the changes to businesses that will occur over the life of contract. Outsourcing deals are usual long term contracts (5-10 years) which is too long a period and changes are expected during that period. It is almost impossible to predict future company structures, mergers or acquisitions, forecast the impact of new technologies on the development of the market place.

Significant changes to business strategy and directions are resulting with changes of objectives for IT services. Contract and agreements needs to be built to facilitate continuous change which is not so simple to achieve.

5.3 Unsatisfactory outsourcing contracts

A clear, financially viable and practical contract defines the parameters of the outsourced services, performance measures that facilitate effective monitoring and procedures for processing changes and resolving problems. There are number of pitfalls in this area:
- having a fair deal that represents proper balance between parties – if for example, supplier pushes too hard to deliver high levels of services with low profit margins
-having clear service expectations and understanding between customer and supplier organisation.
- proper sponsored outsourcing deals (from top management) and proper specialists included into negotiations, customer IT department support is also important

5.4 Lack of flexibility

Lack of the flexibility within an outsourcing contract also may cause pitfalls. It is necessary that the contract allows both, the supplier and the customer to instigate changes and to be aware that it is not possible to forecast everything during the long term contracts.

5.5 Higher costs than anticipated

When organisations are outsourcing IT services costs are more visible then they were internally (internal costs like salary and overheads sometimes are not seen by senior management). Particular problems arise when the customer organisation finds out that they are paying extra for services that they believed were covered by the outsourcing contract. Some companies are finding out that costs are higher than expected and they are considering insourcing IT back into organisation.

5.6 Poor service levels

It is necessary for customer organisations to monitor supplier's resource levels and business knowledge to avoid delays and protracted difficulties in resolving service issues. It is not unusual that suppliers change support teams and with that decrease business knowledge to provide proper service to customer

5.7 Unsatisfactory performance measures

As it was emphasised earlier, it is necessary that proper performance measures are in place and that they are constantly monitored by customer. Adopting unsatisfactory and inappropriate measures can have damaging impact to the overall relationship.

5.8 Inadequate contract management

To have a successful IT outsourcing which delivers benefits, a customer needs to focus to have proper governance structures in place, supported by sufficient resources. Poor contract management arises in different cases.

5.9 Monitoring user satisfaction

As mentioned earlier, managing ICT outsourcing relationship and monitoring are very important parts of the outsourcing and without it, it is likely that the relationship will not be successful.

The relationship is based on contract(s) but those contract(s) and fulfilling the conditions needs to be managed regularly and controlled to assure good services.

It is necessary to measure satisfaction with provided services and it is interesting to see result of Garther research on Fig.4.

Table 1. Mean Satisfaction Ratings for IT Outsourcing: Global Respondents (N = 838)

Attribute Evaluated	Mean Satisfaction Rating
Overall Relationship With Outsourcing Provider	4.9
Service Quality	4.8
Performance to Service Levels	4.8
Problem Resolution	4.7
Price of Services	4.4
Flexibility in the Contract	4.4
Cost Savings Achieved	4.4
Technical Innovation	4.4
Note: Mean satisfaction was based on a 7-point scale, with 1 = not at all satisfied and 7 = extremely satisfied.	

Source: Gartner Dataquest (October 2006)

Figure 4. IT Outsourcing – satisfaction rating [4]

6 New delivery models and their impact on Business and IT organisations

In the era of new technologies like virtualizations, new approaches like software as a service (SaaS) and other IT utility service will probably significantly influence on all IT organization.

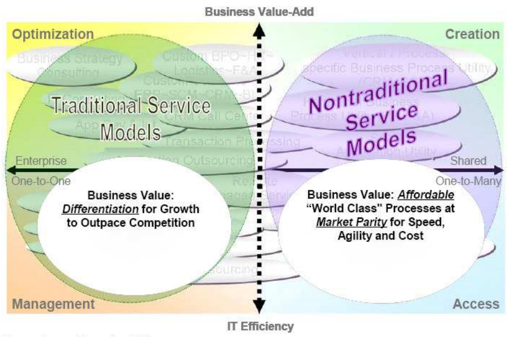
Gartner identified 14 new delivery models:
- Business process utility
- Capacity on demand
- Communication as a service (CaaS)
- Community source
- Grid computing
- Infrastructure utility
- Remote management services
- Software as a service (SaaS)
- Software streaming
- Software based appliances
- Storage as a service
- User-owned devices
- Utility computing
- Web platforms [3]

All those delivery models are still not fully developed, but they will evolve and influence all ICT – outsourced or not.

IT outsourcing partners (suppliers) need to prepare a strategy for those delivery models to be able to react to buyers' demand for some of those new delivery models, and consider in which way and in which period to adopt this new models

Figure 5 is showing differences between traditional service models and non-traditional ones which are becoming more and more present.

Figure 1. Outsourcers' Heritage Is Based on Traditional Service Models



Source: Gartner (September 2007)

Figure 5. Comparison of service models [5]

7 Conclusion

It is quite hard to say whether the ICT outsourcing is a good or a bad model for managing ICT. The most important step, which each company which is thinking to start process of ICT outsourcing, needs to take is a careful evaluation of possible outsourcing models, their benefits and associated risks. A decision needs to be made only after a serious analysis has been made and it shows that that expected benefits are more significant than possible risks.

ICT outsourcing is present and it will be present in future. Although we do not have a crystal ball to predict the future, available research predictions are that the number of outsourcing deals will rise in near future.

We are living in interesting and challenging times in which changes are frequent and new models are evolving constantly– it will be interesting to compare outsourcing models of today and those of five to ten years from now.

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