

SOURCING OF IT SERVICES – INDUSTRY TRENDS

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This article is an attempt to sum up the trends in the sourcing of IT services during the last decade and to forecast how the industry will develop in the coming years. A substantial part of the article concerns the trend of offshoring IT services and the experiences of those companies that decided to move part or whole of their IT operations offshore. The author analyses the outcomes of this phenomenon and shows possible new trends in this field. The role of Poland on the global offshoring market is also mentioned in the article. A short description of cloud computing as an important new IT outsourcing technology is also provided.

Keywords: IT outsourcing, offshoring, multisourcing, cloud computing

1. Offshoring – a new trend at the beginning of the second millennium

There are several methods and models of sourcing IT services by enterprises. IT services can be partially or fully provided by the in-house IT department in which case we have the insourcing model or they can be partially or fully outsourced which means they are provided by an external company. In the last decade another factor has been taken into account by companies deciding where their IT services should be placed – geographical location. For various reasons some companies decided to offshore their IT functions from the country where the company has its headquarters (usually North America or Western Europe) to another company in a different country or even continent.

At the beginning of the millennium we could observe offshoring of IT services as a new trend in the industry. Moving such services from the onshore

premises of companies to offshore contractors was a direct implication of cost cutting tendencies perceived by many companies as a necessity, especially in the IT domain. Cost calculation for offshore services showed direct saving opportunities for North American and Western European corporations. The main points were usually the cost of labour which was much lower in the most popular offshore locations like Asia or Eastern Europe and, most probably, tax savings. For some companies offshoring operations resulted in a great success as far as their targets were concerned, for others it was rather a more difficult experience.

After a decade of observing how these trends developed, we can now sum up the outcomes of offshoring as well as the lessons learned by the different companies that decided to move away part or entire IT services. We can also try to answer the question if this trend will continue to grow or not and what will be the possible role of new IT technologies like cloud computing in the shaping of IT services in the future.

2. Lessons learned- problem areas

As offshoring was mainly meant to bring about considerable **IT cost savings**, let's look first at this aspect of the whole operation. The companies interested in moving their IT operations to different countries were mostly interested in cutting a substantial part of their labour cost. Market studies showed that the level of wages for IT specialists in Asian and Eastern European countries was considerably lower than, for example, in the US or Western Europe. As it appears the most successful offshoring users may not even have saved 30% of cost [1]. The cost of labour in the countries to which the IT services were moved was lower indeed, but there were other factors that required bigger investment. These factors included the onsite equipment and hardware, communication, security and travel to the remote locations.

As for the labour costs – when the first outsourcing deals were made there was a really huge gap between the wages in countries like India or the Philippines and the likes of the US. Nowadays the differences still persist, but they are constantly diminishing which makes this factor somewhat less attractive.

The second area which posed some problems for the offshoring users was the **quality of service** and its perception by their customers. Many customers used to the local service found it hard to communicate with the offshore staff and complained about the language level which understandably was not as great as that of the native speakers [2]. The quality of service problems also resulted from the fact that the outsourcing organizations suffered usually from the high turnover of workers. The majority of work outsourced being repetitive and usually below the qualifications of the hired staff – it attracted mostly young people just out of school who then went onto search for more ambitious jobs and thus left the company.

The movement of some core business functions like, for example, strategic development projects requiring highly collaborative work or business processes was also in many cases not a good idea, because the outsourcing companies were not able to deliver the same level of know-how as the in-house teams [1]. Additionally pay for good IT analysts and product developers in India and China has been rising by up to 30% a year because of their scarcity on that market so to achieve a similar level of proficiency in more advanced projects than just basic IT support functions, the outsourcers would have to pay more and more similar wages to those in Europe or America [3].

Another possible source of problems can be **the technological gap** between the current time and the moment when the outsourcing contract was signed. A study performed by the outsourcing consulting company Alsbridge on 250 senior IT managers from the Western European companies showed that more than 35% of them found the existing outsourcing models “a barrier to new technology adoption”. Another interesting claim by these managers was that they did not believe their suppliers were motivated enough to implement new technologies as, for example, cloud computing which could reduce their bottom lines [4]. That is because if the outsourcing company based its pricing for example on the effective number of servers – this company would probably not like to move to cloud services which could reduce the cost of service and at the same time their revenue. The possible result of this problem can be the shift from the long term contracts towards more flexible short term ones with more freedom of decision-making about the technologies for the outsourcing users. The implications of cloud computing technologies for outsourcing contracts will be presented further in the article.

All the problems described above result in the trend some market observers have already labelled as “the death of offshoring” [5]. Rightly so or not – we need to look at this phenomenon closer.

3. Offshoring services – coming back home?

According to a recent survey by HfS Research, a business and IT consultancy, more and more companies are finding that high quality IT work is more likely to be achieved under in-house control. This shift in perception is already taking place in the USA and is another outcome of this survey [5]. Some of the early adopters of the offshoring idea are bringing the work back to their companies as they discovered that looking after customers and developing new IT tools are more of the “core” parts of their business. The possible trend known as “reshoring” can increase the demand for local labour in the developed countries, especially concerning the high quality, educated workers. An example here can be the

General Electric multinational corporation, whose former CEO Jack Welch was one of the pioneers of the offshoring trend. The company is currently moving back a substantial part of its IT services to their new centre in Michigan, US and hiring some well skilled, highly trained IT engineers [6]. Taking into account its offshoring experiences, the company found that the IT department was losing too much technical expertise and that the offshore services provider was not responding quickly enough to changing technological needs [7].

As the Nobel prize winning economist Joseph Stiglitz argues – the result of several years of offshoring of IT services from the US to the developing countries is a drop in wages even for the well skilled workforce in the US. Countries like India and China are producing more engineers than America and, with the possibility of the remote work in the IT sector, they are now quite a strong competition for the local specialists [8].

Recent research by the Hackett Group shows that the close to 1.5 million IT jobs that existed in 2002 in North America and Europe will be eliminated by 2017. The factors that contribute to this phenomenon are, first of all, offshoring (concerning mostly the roles in maintenance and development of applications as well as infrastructure support), but also new technologies driving better productivity and the general low-growth business climate [9].

This is why there can be even some political reasons for bringing work back to the countries of origin. This is the case with Bank of America (BoA) who has signed some major contracts with the Indian subcontractors: Tata Consultancy Services Ltd and Infosys Ltd – India's top two software developers. BoA will bring some of its IT projects back to the US either to some service providers or to their own company. One of the reasons is the will to “ward off political backlash against jobs being outsourced to India” [10]. This decision shows that there will probably be other factors taken into account by the decision makers in the IT departments apart from the costing factor. As it appears, the general image of the company and its social responsibility for the community in the country of origin starts to play some role in the decision process. We will see if this trend persists in the coming years.

There are other examples of companies that have already shifted their work from their offshoring partners or at least have started to think about doing it. General Motors, having billion dollar contracts with Indian and other foreign providers, announced that close to 90% of its IT projects will be moved to their in-house staff in three to five years. Wal-Mart and JPMorganChase are also in the process of moving some portions of their IT operations back to the US. Therefore some increase of business for the onshore providers can be expected in the near future [11].

The trend might be reinforced by the perception in the level of professionalism and skills of US workers versus their offshore counterparts. According to another survey performed by HfS Research this perception is more favourable for US workers. 82% of the surveyed IT managers agreed that US specialists were strong in cultural and communication skills compared to only 33% expressing the same opinion about their offshore staff. "Taking initiative" was the American quality according to 77% of the respondents versus 40% who found the offshore workers mastering this virtue. Concerning the term "innovative", the results were respectively 77% and 45% [12]. These are other examples of "soft" factors (other than cost or professional expertise in the offshore locations) apart from the political ones described above which start to play a role in the IT departments' strategies of sourcing of their services.

It will be interesting to observe what kind of impact the "reshoring" trend (if it persists) will have on the local and offshore markets. As far as the labour cost is concerned it could cause an increase in relative wages for the highly specialised IT experts in the US and Western Europe and at the same time the higher cost of IT operations. The cost can be nevertheless balanced by the introduction of new IT services organization models and technologies which will be described later in the article.

4. IT outsourcing services in Poland

As one of the most popular offshoring locations in the world, Poland definitely deserves a mention in our analysis. Whereas the leaders in outsourcing services offshore still remain India and China, Poland takes a very good third place in the world and is the unquestionable leader in Europe as far as foreign investment in outsourced services is concerned. IT services are the second most common part of business outsourced by foreign companies to Poland after finance and accounting [13].

During the last year Poland overtook India as far as annual growth of new jobs in the outsourcing services sector is concerned. From 2008 this growth has represented 20% year on year and there are no signs of it slowing down in the coming years. Therefore Poland can remain an exception in the growing "reshoring" trend described above. The main attraction factors for foreign investors in Poland are the availability of a well educated workforce with very good level of foreign languages and, at the same time, comparatively lower wages, as well as a constantly developing infrastructure and office space accessibility. The outsourcing services sector in Poland already employs 110,000 people with the main three cities for the location of these services being Cracow, Warsaw and Wroclaw [14].

As far as workforce skills are concerned, the future of outsourcing centres in Poland looks rather bright especially in technological domains. The number of students at technical faculties is constantly growing and international rankings put Polish students ahead of America's in subjects like science and maths [15]. Many industry experts forecast that in the coming years there will be more advanced services moved to Poland requiring more technological knowledge which would be very beneficial for the country and IT specialists, as far as the general technological development is concerned. Currently the country takes second place in Europe concerning IT services after Russia and according to the Antal International representative Poland will be the leader in Europe even before 2015. There are an estimated 4,000 new jobs currently being created in the sector in preparation for the development of such services as research and development, shared services centres, nearshore and offshore [16].

Worth mentioning is the fact that more and more Polish companies specializing in IT services are present on the international market. Three of them - Asseco, Comarch and Ericpol – already have a strong position in the Eastern and Central European region. Asseco Group created an international holding structure grouping subsidiaries from several countries of the region and also from Western Europe and Scandinavia. The strategy of the company for the following years will be to achieve a high level of specialisation within the group and therefore there will be competency centres created which is a form of concentrated insourcing of IT services within the organization. This strategy follows the following scheme: expanding internationally - taking over the know-how concerning the local market – optimizing process and consolidating [26].

5. Industry perspectives

Taking into account all the business factors and trends what can we expect the global IT services sourcing strategies to look like in the coming years? Few trends are definitely worth observing:

- As far as offshoring of the services is concerned, according to CIO.com surveys on this matter, low cost locations will still remain important but local support for customers will be given more attention. With onshore costs becoming relatively competitive more and more companies may decide to create their IT support centres in the US or Western Europe [17]. This will especially concern the core IT functions and projects that should be performed by the in-house teams. The simple and repetitive tasks as well as the basic support will possibly remain the domain of the offshoring providers. The

general business environment and technological advancement will play an important role in decisions concerning the relocation of IT services.

The table below shows benchmarking of different countries as far as general IT industry competitiveness is concerned. The factors presented in this table can be taken into account by companies planning to relocate their IT activities back to their country of origin or elsewhere.

Table. IT industry competitiveness by country

		Overall	Business Environment	IT infrastructure	Human capital	R&D development	Legal environment	Support for IT industry
Rank	Category weight		10.0%	20.0%	20.0%	25.0%	10.0%	15.0%
1.	USA	80.5	95.3	76.5	74.1	74.3	92.0	87.2
2.	Finland	72.0	98.2	71.0	52.1	67.3	89.5	78.6
3.	Singapore	69.8	91.0	65.2	51.8	67.2	81.5	82.3
4.	Sweden	69.4	90.1	83.3	46.4	54.9	85.0	81.6
5.	UK	68.1	93.2	74.0	57.5	46.7	88.5	80.0
6.	Denmark	67.9	95.1	87.2	47.9	42.0	90.5	79.0
7.	Canada	67.6	88.3	76.9	53.4	47.6	79.5	85.4
=8.	Australia	67.5	92.3	82.4	60.4	32.7	92.5	82.1
=8.	Ireland	67.5	96.0	59.3	54.8	55.9	85.0	83.9
=9.	Netherlands	65.8	90.1	84.3	43.8	43.8	90.5	74.6
=9.	Israel	65.8	81.3	64.4	47.2	71.3	73.0	68.1
10.	Switzerland	65.4	88.3	89.9	40.7	41.3	88.5	75.0
...28.	Poland	44.6	76.5	42.8	42.6	18.1	70.0	55.9
...32.	India	41.6	61.8	5.8	52.8	42.9	53.5	51.0
...35.	China	39.8	54.5	18.1	60.4	25.6	59.5	42.2

Source: Benchmarking IT industry competitiveness 2011, BSA
<http://globalindex11.bsa.org/>

As we can see, the US remains a strong competitor in all the most important factors influencing the attractiveness of that particular country for IT investors. Taking into account only the human capital (availability of IT talents), the ranking of the countries is somewhat different but nevertheless interesting. The top 10 countries in this respect are: US, China, Australia, South Korea, UK, New Zealand, Ireland, Taiwan, Canada and India [18].

- For the outsourcing companies dealing with more business-oriented projects and more sophisticated problems and change management, the new service level agreements (SLA) should include more qualitative values related to the customer satisfaction and business outcomes of the operation. The managed services model will become more popular for services like data centre and data storage [19].
- The multisourcing model will be more popular among the outsourcing users. In this model, IT services of a company are contracted to a number of vendors and can also include some in-house elements of the IT organization.

The purpose of this solution is to maximize the effectiveness of IT operations by making sure that the different elements are sourced from the best possible providers. The possible benefits of the multisourcing model are better competition between the service providers resulting in better quality and innovation of the services delivered. Companies using this model are also often using a related model called service integration in which one outsourcing company is managing several IT providers working for one company. According to recent statistics, US corporations are already working with, on average, 13.5 IT service providers and the management of these represents quite a big challenge. Therefore the service integration model offers better coordination possibilities and also flexibility in terms of the contract [20].

- More flexible outsourcing contracts should enable IT organizations to adopt new technologies like cloud computing which in turn should help to reduce the cost of IT infrastructure and to further concentrate on the core functions of the company.
- The importance of virtual teams will grow. Members of the particular teams will not necessarily be placed in the company premises or in the outsourcer or offshorer office, but will work remotely from their home, hotel, etc. and will even be placed in different countries and collaborate using new technologies such as cloud computing. The virtual team providers based on a similar model as the elance.com website will develop as a new and more powerful form of outsourcing.

6. Cloud computing – a new and effective outsourcing technology?

Cloud computing technology has become more and more popular during the last three years and according to industry observers this trend will continue to rise. Experts claim that during 2013 the cloud will make up 27% of all new IT spending [5]. To characterize it briefly – it is a technology enabling the customer to pay for the use of a particular IT service, for example a server or a piece of software, without having to buy additional hardware or a licence. This means a so called virtualization of the IT infrastructure where the infrastructure itself is provided by a third party and a final customer has access to it via a special interface.

This new technology offers several benefits to the company using it. We can point out the most important ones:

- More flexible costing model – cost of IT services is based on consumption of these; the company does not only depend only on its own IT infrastructure investment which then can be used only partially. At a lower cost the company is able to get more advanced features that could be difficult to obtain

using the traditional model. It can also pay only for the features of the software that are needed for its business. That represents an important advantage for small to medium sized enterprises that cannot otherwise afford the advanced IT infrastructure.

- Lower maintenance requirements – cloud computing service providers take care of the infrastructure and software as part of their delivery contract.
- Easier scalability – for the growing business it is possible to expand the services used without substantial investment. It is also easier to adjust to seasonal shifts or other changes in the business [21].
- Mobility of workers – they can access the IT services wherever they are, also in the BYOD (bring your own device) model, the only requirement is access to the Internet [22].

As an example of a successful cloud deployment on a bigger scale we can mention the company Ricoh that developed a private cloud working with Indian IT service provider Infosys at the beginning of this year. As for now the benefits of the operation appear substantial. The company consolidated nine data centres into two, which cut the IT infrastructure costs by 30% by eliminating 1,000 servers. Worth mentioning is also the environmental impact because, thanks to the implementation of this cloud, the carbon dioxide emission was reduced by 16,800 tons [23].

On a less positive note there are some concerns expressed by potential cloud users concerning data security in this model. The latest revelations by former NSA worker Edward Snowden concerning the agency's electronic surveillance PRISM program have created a perception that US government has an unlimited access to the data stored on the servers of companies like Google and Microsoft. That in turn provoked some worries about data safety and according to a recent survey by the Cloud Security Alliance, a non-profit organization, 56% of respondents (different company officials) said that they would be hesitant to allow US firms to handle their data [24].

Nevertheless we can expect that when more mature standards concerning the data security are achieved, cloud computing will gain more importance as one of the models of IT services outsourcing. The yearly report *BSA Global Cloud Computing Scorecard* evaluating “the international policy landscape for cloud computing” in 24 countries stated in its 2013 issue that the conditions for implementing cloud computing solutions in most countries are improving. The top three countries ranked in this report regarding the security and privacy legislation as well as broadband penetration in the country and the general support for a digital economy were Japan, Australia and the US. Poland is ranked 12th in this report, a slip of one place from 2012 due to “the small increases in the privacy policy and infrastructure development” [25].

To sum up, we can say that cloud computing can be considered an important new way of outsourcing IT services. It enables the companies not only to outsource

the infrastructure, but whole processes of management and administration of the IT systems including hardware and software used by the company. It also represents substantial cost savings and gives the opportunity to the small to medium sized enterprises to tap into their potential without requiring significant financial investment.

7. Conclusions

Summing up the analysis provided in the article we can conclude that there are some important changes in the strategies of sourcing IT services for all types of companies. The trend of cost cutting as a business priority that we have observed during the last decade is fading and instead we can see a tendency that we can consider as a more mature approach to cost optimization but without compromise on customers' perception, quality, core business needs and technological development. Therefore the decisions concerning the sourcing of IT services are also taken with consideration to these factors. The sourcing of IT services in offshore locations will still remain an important part of the business, but after some lessons learned by the early adopters of this solution we can expect some considerable improvements to be introduced in the coming years. The outsourcing users have also spotted the importance of differentiating the core business functions and more "routine" tasks. Core IT functions will probably tend to be performed in-house or, if outsourced, they will not be placed in very remote locations like India or China but instead the notion of nearshoring will become more common. The second category, "routine" projects and basic IT support that not represent the core value for companies, will most likely remain outsourced or even offshored but most probably with stricter service level agreements, not only on a basic quantitative level, but also on a qualitative one as well. The importance of flexibility in adapting the new technologies will also change relationships between the outsourcing users and their providers mostly regarding the type of contracts signed. The companies will also embrace new development opportunities resulting from dynamic technological changes that we have already observed in the form of various cloud computing solutions.

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