# Innovation Seeking Strategy of IT Outsourcing on e-Europe

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**Abstract.** In this paper, we emphasize the opportunities concerning the implementation of an intelligence receptive organizational culture, that allows the fast and flexible response of companies' strategies in the competitive e-business. Due to the promotion of an an intelligence receptive culture, e-Europe software companies start to see the Romanian IT firms as extremely attractive targets for outsourcing projects that suppose not only NOT the creation of specialized software, but also the overtaking of maintenance or suppoert services. The creation of a website designed to facilitate the outsourcing projects will assure the increase of the Romanian IT companies' visibility in e-Europe.

**Keywords**: outsourcing, information technology, website, intelligence receptive culture, e-Europe

## 1. Introduction

The global economy entered in a new era, in which the new information and communication technologies accelerate the companies' expansion in e-business, affecting the competitiveness components and generating new sources for the economical development. The new economy implies another business approach and an orientation towards customers. The strategic objectives of the companies as well as the processes developed in their departments are submitted to significant changes, which determine the adaptation of the top-management to the business environment challenges.

## 2. Outsourcing

Outsourcing can be defined as 'the strategic use of some external resources for the development of some activities which are traditionally carried out with internal personnel and resources'. Outsourcing represents a strategy by means of which an organization entrusts major functions to some external providers, specialized in certain services which become 'valued business partners' (services provider's partners with added value).

Nowadays, most of the IT managers consider outsourcing as the most convenient solution for a company interested in becoming more efficient by means of the costs reduction and the access to the latest technologies, without wasting significant funds for research and development. Moreover, outsourcing constitutes the simplest solution for the problem of the specialists' deficit the occidental countries are confronted with.

Outsourcing is not a completely new concept. The companies have always rented services from the exterior for different types of internal operations in order to accomplish some tasks they couldn't have carried out on their own, no matter if there were buildings, technology, people or

other resources. However, the difference between the simple ' subcontract' of some resources and outsourcing consists in the fact that the last one involves a more efficient restructure of certain business activities, using external partnership with companies that have the necessary competences.

e-Outsourcing designs the rent of some IT products and services – from a source or a variety of sources on the Internet – which can be adapted to the internal needs of a company. For example, a company can appeal to a web hosting services provider to create and keep the web site, to an applications provider for specific applications of front office (CRM) and back- office (ERP), or to a security company for the arrangement and administration of a firewall or a private virtual network (PVN). Practically, these companies operate for the respective firm as an IT internal department which takes care only of its main problems. The services presented above can be bought under the form of a package offered by a single seller who overtakes these services offered by other sellers.

e-Outsourcing presupposes providing IT services and products which can be adapted very easily to the internal needs within the company that buys such packages.

**Outsourcing at the first level**- a company entrusts processes to another company in a direct way.

**Outsourcing at the secondary level** - the company which provides services and products that are subcontracted by outsourcing subcontracts in its turn the transmission of these services and products to other companies in a modular or integral way.

The outsourcing term has other forms as well such as:
- **Off-shoring** represents the outsourcing process by means of which a company is subcontracted from another country to the contracting company.
- **Out- tasking** is defined by means of the externalization of a well defined part within the internal product.

The studies referring to the externalization decisions of the IT projects are based on the following three principles:
- The externalization must allow the possibilities of economies;
- The contractual dimension is essential, containing clauses such as the reversibility or the quality guarantee;
- The externalization must be accomplished only for those domains which do not represent the main activity of the company.

A subject that was very little approached at the world level refers to the studies of the potential loses regarding the innovation opportunities due to the externalization of the information services.

**From the target point of view**, we distinguish between:
- Tactical outsourcing. It is limited in complexity and time and has as a purpose the rapid costs reduction in order to face some actual challenges of the market.
- Strategic outsourcing. It presupposes a long term collaboration in which the beneficiary is concentrated upon his own business and externalizes the rest of the processes.
- Transformational outsourcing. In this case, a partnership between the outsourcing company and the internal teams of the organization is had in view, having as a purpose the share of knowledge, competences and complementary experiences.

**From the approach point of view**, outsourcing can aim at:
- *The integral approach* ( the functions are exclusively accomplished by the external personnel)

- *The partial approach* (the functions are accomplished by a mixed team, made up of internal employees assisted by external specialists)
- *The partnership* ( the functions are accomplished in cooperation, by the integration of the external and internal teams, thus, sharing the competences, the knowledge and complementary experience)

The main **advantages** of the outsourcing projects are:
- **Reduced costs of exploitation**

The most important reason why the companies appeal to outsourcing is the reduction of the exploitation expenses. Moreover, the companies that want to do everything on their own must support larger expenses for research, development, marketing and launch. The access to a more profitable structure from the costs point of view offered by an external provider, as well as the advantages due to the specialization are actually the most important tactical reasons for which the companies appeal to outsourcing.

- **The company's focus on the business processes is improved**

The companies can concentrate on a larger variety of business divisions, while some operational details are given in an external expert's charge. For many companies, the only reason they appeal to outsourcing is the fact that different types of activities require a lot of the time and attention of the company's leaders. Most of the times, the solving of the problems generated by these activities are blocked somewhere in a so- called 'decision gridlock', at the middle management level. This fact generates financial loses that will affect the company's future.

- **The increased access to capabilities**

Appealing to the services of some specialized providers, the companies have an implicit access to their investments in technology, methodology and people – investments accomplished during some considerable periods of time. Among the capabilities of these providers there is the experience gained in that respective domain by the work with different clients with similar necessities.

- **Internal resources that are available for other purposes:**

Most of the times, the people are the redirected resources by outsourcing. By entrusting the adjacent operations to some external companies, the company can redirect these employees to other activities with a higher added value. The employees, whose powers were leading towards the interior, can now direct themselves towards the exterior, directly to the client.

- **Non-critical business functions**

Outsourcing is the way in which the capital that must be invested in the business' adjacent activities can be reduced. Every company has the possibility to choose: it can acquire the necessary resources by large expenses in a short period of time and with uncertain results or it can delimitate exactly the costs involved following some specific procedures, according to a project that was previously discussed and approved during a well determined period of time. More than that, the existence of some guarantees for the project in development is an extremely important factor when a company chooses the outsourcing way.

- **The risks' division (sharing)**

The companies that appeal to outsourcing become in a short time more flexible, dynamic and willing to change in order to face the new transformations imposed by the present economy. The risks associated to the investments a company makes in different business areas are enormous. The markets, the legislation, the competition, the financial conditions and the technologies change with a tremendous speed. To keep the rhythm with these changes- especially if they involve significant investments in resources- is very difficult. The moment the companies appeal to outsourcing, these risks are divided between more of them. A

specialized services provider doesn't make investments in the name of a single company, but in the name of all his clients. By the division of these investments, the risks undertaken by a single company are considerably reduced.

- **Scalability**

A profitable solution that starts moderately can be developed exponentially without the increase of expenses and the human resources. The projection of such a product may be performed in a modular way so that the future concept adding or adjustments should be easily implemented. The costs can be easily followed and divided and the rejoining to another scale of already existent solutions becomes a much easier process with a more reduced final estimate. The major benefits can be registered not only in what concerns the costs' reduction, but also the companies' receptiveness. In other words, the job redefinition and a better use of people and resources at the company level have chances to play an important role in taking a decision regarding the entrusting of certain internal processes to specialized companies.

Professor Erran Carmel, expert in software outsourcing at the global level, author of the book: "*Global Software Teams"*, makes the distinction between the software  exporting nations, in his study: "*Taxonomy of New Software Exporting Nations*" (published in Electronic Journal on Information Systems in Developing Countries, vol. 13, May 2003):

I.        "*Major software exporting nations*" – most of the nations OECD members, like: United States, Canada, UK, Germany, France, Belgium, Holland, Switzerland, Finland, Denmark, etc.
II.       "*Transition software exporting nations*" – only Russia and China
III.      "*Emerging software exporting nations*" - Brazil, Costa Rica, Mexico, Philippine, Malaysia, Sri Lanka, Korea, Pakistan, Romania, Bulgaria, Ukraine, Poland, Czech Republic , Hungary, etc.
IV.      "*Infant stage software exporting nations*" - Cuba, Salvador, Jordanian, Egypt, Bangladesh, Vietnam, Indonesia, Iran.
V.       "*Non-Competing*" – most of the countries less developed in IT domain.

As we can observe, Romania enters in the group of *Emerging software exporting nations.* The countries from this category register massive software exports by the means of SME specialized clusters with high qualified human resources.

Romania's outsourcing potential cannot be compared with China or India, but this sector is the most important promotion instrument for IT industry and services offered by Romanian companies on the international market. Nowadays, 97% of Romanian IT market is focalized on the services outsourcing and only 3% on software products with high value-added. The development of an industry based on licenses in Romania needs a financial mechanism, marketing and sales support. The foreign companies outsource their services as a strategic approach. As the new business model characteristic to the global economy is extended, more and more companies are forced to search outside the boundaries high qualified human resources. This is a reason for which the majority of companies from Western Europe concentrate their attention on software developers from Eastern Europe, in order to find an ideal balance between high quality programming services and efficient solutions from costs perspective.


## 3. Offshore outsourcing business model

In order to implement an outsourcing strategy a company has to decide what objective their organization hopes to accomplish. They need to analyze the most appropriate pattern and prioritize areas or functions that could be a match for offshore outsourcing. For each opportunity, they should state the objectives, define the benefits and improvements that are

needed, try to understand how offshoring will affect operations, and, most important, how this change will affect customers[1].

Having the right end-to-end project management skills is also very important. Just before businesses decide they can benefit from offshoring, they must not forget of transaction costs in an offshore market (they invest time and money in choosing a vendor, and negotiating a contract, and the cost to operate in a different cultural organizational environment-the most difficult costs to predict). They cannon in any case be sure that they will benefit from the offshore strategy and it is impossible to raise barriers against the long run opportunist behavior of the chosen local low cost partner.

## 4. Current outsourcing experience on IT market

The greatest IT companies transfer offshore a part of their software development operations, targeting in this way the offer of East European IT companies. Far from being a simple trend of the moment, the migration towards "offshore programming" opens new opportunities for e-Europe IT companies, looking for cost cutting which allow the reduction of the price on the market and a better positioning on it.

In short run, from this point of view, outsourcing can be considered a very efficient weapon in the fight with competitors. The successful strategic behavior instead, urges another perspective which can be defined "from cost reduction to knowledge seeking" pattern.

In the last years, we observed in IT domain the implementation of the concept Rapid Application Development (RAD). This tendency was determined by the high demands from the part of the software market, linked with the shortage of project development periods. In view to reach this goal, RAD environments are not useful without a serious training that supposes money, human resources and time, which represent the advantages of outsourcing. Actually, services outsourcing model doesn't suppose training and the recruitment of supplementary personnel doesn't represent a problem.

Two-three years ago, the general tendency was to consider India as the implicit destination for outsourcing, but in the present, the things are changing faster, because the majority of Indian companies started to increase their prices as they become more accepted. Usually, the Indian programmers develop a project following the specifications. While some problems occur, they report them and wait for new instructions. Romanian programmers prove a high level of creativity and imagination in order to solve the inherent problems; they search alternative solutions to hurry the problems' solving. That's the reason for which the applications developed by the Romanian IT specialists are more flexible and efficient, like the idea: "let it in charge of a Romanian software developer and he will bring, finally, a successfully product!"

In these conditions, software producers from e-Europe start to regard IT Romanian companies as targets extremely attractive for outsourcing projects that suppose not only the creation of specialized software as well as the overtaking of support or maintenance services. What could be the arguments for outsourcing in Romania? Romanian companies with outsourcing capabilities reached a balance between the quality of the services and the price level. If we take into account the access to up-to-date technologies and the flexibility concerning the human resource (brainware) recruitment, the offer becomes more attractive. Software industry knew an exponential increase as a result of the use of Romanian specialists by the greatest corporations, in outsourcing projects. At the same time, a great number of specialists are available for the development of high-tech competitive products.

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[1] Robinson M., Kalakota R. "*Offshore Outsourcing: Business Models, ROI, and Best Practices", John Willey&Sons Ltd, 2003.*

The IT consultants promote the creation of a a trans-European employer/trade union network in view to facilitate good practice in recruiting and retention of employees within the ICT sector. In this way, an important goal is to support research in order to identify future skill requirements and promote systems of skill certification and an European ICT skill and qualification framework.

## 5. Necessary changes on business environment and IT companies' behavior

We consider that Romanian policy makers must act responsible and induce the requested changes in business environment in order to redefine the pattern of Romanian IT skilled offer, from low cost attraction   to innovation capability.

This is possible due to foreign IT companies itself, which contributed already by knowledge transfer to Romanian IT specialists. The competition between potential skilled offer in IT markets for outsourcing (India, South Asia, Romania, China and new emerging markets), will shift from cost determinants to innovation capability. We consider that the era of *first outsourcing driven behavior –cost minimization* is finishing and we predict that we enter in the *quality driven phase[2] of outsourcing strategy*. The best structure of a future competitive IT Romanian market is based on innovation clusters which will attract companies which consider that innovative process may be outsourced as well. This new matching between the Romanian IT offer and It companies innovation seeking, will induce changing in emerging markets for IT offshore outsourcing.

## 6. What to do for Romanian market?

In view to increase the visibility of the IT Romanian companies' competitive intelligence to the level of e-Europe, we propose the creation of a website that will offer opportunities both for the companies from e-Europe which desire to outsource IT projects in Romania and for Romanian companies that will present on this website their capabilities and the experience accumulated within other outsourcing projects.

The implementation of the web portal supposes in advance the building of a database with the Romanian companies interested to this idea and a database with e-Europe companies that are looking for the outsourcing of IT projects. The databases will respect the permission marketing principles and will be uploaded online after the registration on the website of companies' representatives.

The specific activities concerning the design of the website will take into account the rules that determine a high traffic of visitors, represented by the companies which will try to initiate partnerships: the permanent update of the website content, search engine optimization (that will be one of the main promotion technique), the realization of programs banner-exchange with websites that offer career opportunities in IT domain and websites that offer specialized services concerning competence certification or personnel training, cross-promotion with the single specialized website from Romania which have a high degree of awareness: **www.outsourcing.ro**, the possibility offered to visitors to login in view to receive newsletters, the creation of an online forum which allow an interactive communication between its members, the permanent quantification of visitors' number and the analysis of their behavior on the website, the implementation of a search engine on the website or other self-service instruments as FAQ, the emphasize of viral marketing technique.
The online promotion will be focalized on the attraction of many companies as possible on the website, which will become potential business partners in e-Europe. The success key of this

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[2] Peter Maskell. Torben Pedersen – **"***Outsourcing - From Cost Reduction to Knowledge Seeking. Bent Petersen***"**, Jens Dick-Nielsen. SMG WP 13/2006, August 2006

website implementation will consists of the high interactivity degree between the site and its visitors that will become the promoters of IT partnerships or outsourcing projects in e-Europe.

The competitive intelligence at the level of the IT companies is based on competences that are certificated in the domains:

- **The operation systems**: Microsoft windows 2000/ XP/2003, Linux, Unix
- **The programming languages**: C/ C++, Java, Perl, Microsoft Visual C++ (including MFC), Visual Basic. NET, C #
- **Web technologies**: HTLM (including CSS), JavaScript, ASP, ASP. NET, VB Script, ActiveX, PHP, XML, JPS, Servlets
- **Web servers**: Internet Information Server, Apache, Tomcat
- **Data basis systems**: Microsoft SQL Server, Oracle (SQL, PL/SQL), DB2, Access, MySQL, and PostgreSQL.

The complementary objective of the project proposal is to reinforce the accountability of the offer market company, in order to minimize the cost of the IT demanding company during the transition period-which until now specialists called "hidden costs of offshore outsourcing "[3].

The predictability degree increase of the services demand evolution in outsourcing and the examination of the information degree of the companies with a competitive potential will lead to the differentiation of the offer which will be based on flexible and resources that are adaptable to the companies' requirements in e-Europe.

A specific objective of the research is represented by the creation and promotion of a website which will have in view the meeting of the demand and the offer from the perspective of the IT services externalization towards Romania and the increase of the visibility degree regarding the competences and the abilities of the IT companies from Romania in the e-Europe environment, using the specific instruments of online promotion which are addressed to a specialized target public (in this direction, we will translate the website content in English) and the involvement of the authorities in the Ministry of Communication and Information Technologies in order to support the development of the IT companies partnerships in Romania with the e-Europe environment.

The off-line promotion will focus on the attendance at trades, profile exhibition (The National Outsourcing Conference, CERF Trade, IT&C local Trades organized by the Trade Chambers), the involvement in partnerships with the National Association of Software Producers in Romania and Business Software Alliance in Romania and advertising insertions in specialized magazines in e-Europe. A specific objective pursued within the project consists in the creation of a partnership with the academic environment in order to adapt the graduates' professional competences to the IT market requirements in e-Europe, which presupposes a reform of the curricular domain in a first stage.

The estimated impact of the project consists in taking advantage of the personalization opportunities regarding the It offer in Romania in order to identify some associated fundamental and variable structures of the innovation system.

## Conclusions

In 2006, a council of IT consultants from worldwide forecast some trends in outsourcing projects[4]:

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[3] Overby S. – "*The Hidden Costs of Offshore Outsourcing*",  CIO Magazine, 2003 – www.cio.com
[4] www.itoutsourcing.net/forum2006.html

- High-speed transformation of enterprises through e-business will result in redundancy of old skills and a bottleneck of new skills:
- Net employment gains associated with new technologies will more than make up for labour losses;
- Many SMEs will be priced out of the market for IT workers, depriving them of the backbone they need to take advantage of e-business solutions.

We propose a set of measures which will provide an efficient visibility of Romanian IT companies on e-Europe:
1. the audit of the information degree of the companies with competitive potential in order to built the relevant offer;
2. the evaluation of the image capital of Romanian IT companies (their perception on e-Europe level);
3. the creation and promotion of a website in order to increase the visibility of outsourcing projects having as a target Romanian IT companies;
4. the launch of a system which will promote the „competitive intelligence" resources identified on Romanian IT companies;
5. the participation to the actions which are focalized on the augmentation of the predictibility degree of outsourcing demands evolutions;
6. the promotion of a receptive culture within the managers of Romanian IT companies.

## References

1. *Overby S. – "The Hidden Costs of Offshore Outsourcing", CIO Magazine, 2003 – www.cio.com*
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