

NEARSHORING – MANAGEMENT SPECIFICS OF REMOTE SOFTWARE DEVELOPMENT TEAMS

WACKOWSKI K. S., KOWALCZYK T.

UDC 378:004.77

Wackowski K. S., Kowalczyk T. Nearshoring – Management Specifics of Remote Software Development Teams

The article describes the specifics and advantages of management of remote software development teams, so called «NearShore Center», as a one of important and appreciated sourcing strategy on the matured markets.

Key words: sourcing strategies, IT outsourcing, nearshoring, nearshore center, remote software development team, IT management.

Рис.: 1. **Табл.:** 1. **Бібл.:** 5.

Wackowski Kazimierz S. – Doctor of Science (Economics), Professor, Warsaw University of Technology (pl. Politechniki, 1, Warsaw, Poland)

Kowalczyk Tomasz – Assistant, Faculty of Production Engineering, Warsaw University of Technology (pl. Politechniki, 1, Warsaw, Poland)

УДК 378:004.77

Вацьковски К. С., Ковальчик Т. Nearshoring – специфіка управління віддаленою командою розробників програмного забезпечення

У статті розглянуто особливості переваг управління віддаленими командами розробників програмного забезпечення, так званих «NearShore Центрів», як одного з важливих і цінних джерел стратегій на ринку, що склався.

Ключові слова: стратегії пошуку, IT-аутсорсинг, ніашоринг, ніашорингові центри, віддалена команда розробників програмного забезпечення, IT-управління.

Рис.: 1. **Табл.:** 1. **Бібл.:** 5.

Вацьковски Казимеж Станіславович – доктор економічних наук, професор, Варшавський технологічний університет «Варшавська політехніка» (пл. Політехніки, 1, Варшава, Польща)

Ковальчик Томаш – асистент, факультет виробничої інженерії, Варшавський технологічний університет «Варшавська політехніка» (пл. Політехніки, 1, Варшава, Польща)

УДК 378:004.77

Вацьковски К. С., Ковальчик Т. Nearshoring – специфіка управління удаленной командой разработчиков программного обеспечения

В статье рассматриваются особенности преимуществ управления удаленными командами разработчиков программного обеспечения, так называемых «NearShore Центров», как одного из важных и ценных источников стратегий на сложившемся рынке

Ключевые слова: стратегии поиска, IT-аутсорсинг, ниашоринг, ниашоринговые центры, удаленная команда разработчиков программного обеспечения, IT-управление.

Рис.: 1. **Табл.:** 1. **Библ.:** 5.

Вацьковски Казимеж Станіславович – доктор економічних наук, професор, Варшавський технологічний університет «Варшавська політехніка» (пл. Політехніки, 1, Варшава, Польща)

Ковальчик Томаш – асистент, факультет производственной инженерии, Варшавський технологічний університет «Варшавська політехніка» (пл. Політехніки, 1, Варшава, Польща)

The globalisation phenomenon and thereby heightened competition have an influence on difficulties of companies in developing and maintaining the range of expertise and skills, which are the most important factors to compete effectively. The antidote to these problems are various sourcing strategies, such as outsourcing, offshoring, nearshoring and onshoring. Depends on the customer's needs, different types of sourcing activities have become an increasingly popular for reducing operational costs. Additionally this strategy allows companies to focus on their core business and quickly respond to the sophisticated needs of the market [1].

An interesting proposal for a contemporary companies turns out to be a nearshoring, which combines the advantages of telecommuting and much more opportunities for communication than it is in the case of classical offshoring.

OUTSOURCING TAXONOMY

Outsourcing can be understood as performing a specific activities outside the organization. The basic question related to the nature of sourcing is «whether we must produce the product by ourselves or buy the product from a third party?» The answer to this question is not only justified to the financial aspects. Increasingly, such decisions are stra-

tegic. They relate to the ability to obtain specialist knowledge, which will lead to increase the effectiveness and efficiency of operations. Moreover, the strategic outsourcing may also contribute to building a competitive advantage [2].

The most important factors determining the need for outsourcing include [2]:

- ✦ costs reducing;
- ✦ focusing on key areas of competence;
- ✦ access to knowledge and other production factors;
- ✦ increasing the number of skilled workers outside of developed countries;
- ✦ increasing the complexity of information systems;
- ✦ the global diffusion of knowledge.

In general there are many models of outsourcing, characterising by specific strengths and weaknesses. In each of these cases there are a variety of management methods. Based on diversity of outsourcing models it can be divided due to different factors [2]. The first important factor is location, describing the place of action performed by the supplier. Outsourced tasks can be done in the client's office or outside, ie in the supplier's headquarter. In the latter case it is possible to work with the supplier from the customer's country or foreign, in the immediate proximity or distant. The second factor is the depth, which describe the scope of

tasks assigned to an external partner. This perspective can be divided to the individual outsourcing, referring to the particular positions in the company structure. Functional outsourcing, referring to the certain areas of the organization (ie, domains), as well as competence outsourcing, referring to the activities related to decision-making. Finally, the third important factor is the type of contracted activities, which may be closer to the process or project [2].

This paper is an attempt to capture the specifics of cooperation between buyers and suppliers of IT systems, working in nearshore model. The nature of such cooperation is not uniform and must be considered taking into account all the factors of division, ie, location, depth and nature of the tasks (Figure 1). Projects implemented in such model can include the provision of individual resources (ie, individual outsourcing), entire teams (ie, functional outsourcing), as well as competence centers with their permissions to make decisions (ie competence outsourcing). Considering the nature of the task, this paper will focus on the IT projects, which are unique from their nature.

- ✦ *software products are highly customizable*; so that the stakeholders will expect its variability, adaptability and development, even after the completion of the project; therefore it will increase the risk of entropy and loss of control over the development process;
- ✦ *techniques and tools for the software design and construction are developing rapidly*; therefore this phenomenon has a significant impact on performance, cost, quality and risk of software development;
- ✦ *the costs of software implementation are almost exclusively connected with the engineering works*; therefore it can be produced in mass-quantities at low cost.

The mentioned above specific features of software products makes management in this area is much more challenging than it is for other industrial projects [3]. In order to fully understand the essence of the problem with software implementation it is necessary to analyze additional layer describing specifics of IT project management environment.

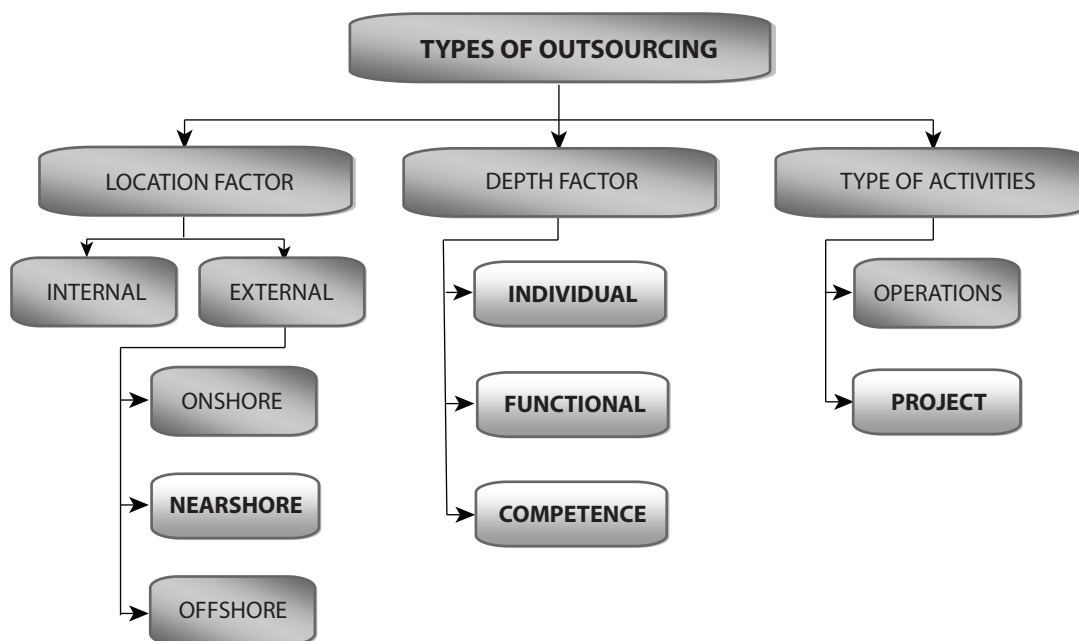


Figure 1. Types of outsourcing

Source: Mark J.Power, Kevin C.Desouza, Carlo Bonifazi, *Outsourcing – Podręcznik sprawdzonych praktyk*, MT Biznes, Warszawa 2010, p. 30.

NATURE OF IT PROJECTS

The nature of software products makes IT projects differ from the other industrial enterprises. Simple attempt of adaptation of management techniques used in areas of construction and mechanics do not working or in the best case leads to a products of low quality [3].

The differences between the software and the products manufactured in other sectors of the economy can be scratched as follows [3]:

- ✦ *software is not the subject to the «laws of physics» and equivalent laws that govern the software has not been discovered yet*; therefore it is difficult to accurately predict the performance and schedule of software implementation without some kind of experiments and prototypes;

Analysis of the problem can be started from the assignment to the IT project the right type of dynamic system. The closest structure which describe the behavior of the software implementation process seems to be a chaotic system which is kind of an interface between deterministic and fully stochastic systems. Chaotic systems have both the properties of deterministic and probabilistic systems. In the case of IT projects it is possible to determine some parameters of the algorithms but it is not possible to predict all the events and factors that affect software production environment. Therefore forecasting is only possible in the short term, which is consistent with the nature of the behavior of chaotic systems [3].

All of these factors affect the fact that the management of IT projects is difficult, even if it take place in a uniform geographical and graded environment. The introduc-

tion of further difficulties, such as formal decomposition of the project team certainly did not help [4].

NEARSHORE OUTSOURCING

Nearshore outsourcing (also called Nearshoring) it is the phenomenon consisting in transfer of processes and IT services to the company located in a neighboring country. In contrast to the traditional offshoring usually associated with the Asian countries, the headquarter of vendor is often located in immediate proximity to the client what entails a lot of positive effects.

The classic model of offshoring does not always work properly, so other models of outsourcing become more and more popular. The major risks associated with the co-operation between customer and supplier in the offshore model are presented in the *Table 1* [1].

Table 1

Offshore outsourcing risks

RISK CATEGORY	SAMPLE RISKS
Business	No overall cost savings
	Poor quality
	Late deliverables
Legal	Ineffective judicial system at offshore location
	Intellectual property rights infringement
	Export restrictions
	Inflexible labor laws
	Changes in tax laws that could erode savings
	Inflexible contracts
	Breach in security or privacy
Political	Backlash from internal IT staff
	Perceived as unpatriotic
	Political instability within offshore country
Workforce	Supplier employee turnover
	Supplier employee burnout
	Inexperienced supplier employees
	Poor communication skills of supplier employees
Social	Cultural differences
	Holiday and religious calendar differences
Logistical	Time zone challenges
	Managing remote teams
	Coordination of travel

Source: Ilan Oshri, Julia Kotlarsky, Leslie P. Willcocks, *The Handbook of Global Outsourcing and Offshoring*, Palgrave Macmillan, London 2011, p. 14.

The use of nearshore outsourcing model reduces the likelihood of particular risks or allows to their complete

elimination. Underlined risks (Table 1) show these areas of management environment which could be improved thanks to the nearshoring. Each of risk can be grouped based on the nature of the phenomena to which they relate.

The most important advantages of nearshore outsourcing include:

1. Single time zone – Cooperation in the same time zone brings great benefits. Communication with the outsourced team is possible through whole business day. Nobody must have to stay after hours or get up very early. In such a model live meetings could be more frequent. The result is higher productivity and employee satisfaction.

2. Immediate proximity – An extremely important element contributing to the success of the team is the communication between the employees and the possibility of frequent meetings, which in the case of the close location of the outsourcing team is fairly easy to achieve. Real cooperation in the offshoring model often turns out to be much more expensive than the initial estimates because of the significant costs of travel and communication. In this case nearshore offer is much more favorable.

3. Highly qualified employees – Recently offshoring model was a popular solution for many companies. However, nowadays it is much harder to implement – the reason is the strong exploitation of the local labor force, which has a negative impact on a productivity. The situation in the eg Central and Eastern Europe is different. These countries have been famous with well-trained technical staff. There are many Universities educating at the highest level. Availability of high-quality labor force is much higher.

4. Political and economical stability – In the era of the European Union nearshoring has become a simple solution. Political, legal and economic considerations are often very similar, and even regulated by the European Union. Partnership in EU countries has become easy and secure. The European Union provides the complete protection of intellectual property rights of the software. Transfer the IT department or domain to another EU country is no different from moving it to a nearby town.

5. Cultural proximity – European countries combines a sense of humor, a similar attitude to work and learning. Cultural elements are a very important factor in building relationships, significantly facilitate teamwork, making it simply and natural.

The above-mentioned advantages of nearshore outsourcing model directly or indirectly contribute to a reduction in the cost of the model. Close location significantly reduces travel costs, qualified personnel will do the same thing (in the meaning of scope of the software) faster and without errors. Working in the same time zone eliminates the need for overtime. Due to political and economic similarities, it is possible to get rid of unnecessary legal risk. Common cultural elements will make the team more quickly reach a consensus. It is widely estimated that the actual cost of offshoring and nearshoring are very similar.

CONCLUSION

Nowadays nearshore outsourcing model seems to be a good alternative to the tested previously offshoring mo-

dels. It offers higher quality and more natural conditions for cooperation. However management of such a project team is not a simple matter. Software development projects are difficult enough even when the entire team is located in the same place, working for the same company and speaking the same native language [4].

Success in collaboration with a nearshore outsourcing depends on both sides. On the one hand the professional approach of suppliers is necessary. On the other hand the client must understand the limitations of nearshoring contract. At the beginning of cooperation with the new provider of nearshore outsourcing, the customer should avoid the situation when [4]:

- ✦ the project is mission-critical without fallback plan;
- ✦ the project is time-sensitive, requiring quick time to market;

- ✦ they don't have sufficient domain expertise and project management available as a part of onshore team. ■

BIBLIOGRAPHY

1. **Ilan Oshri, Julia Kotlarsky, Leslie P. Willcocks**, The Handbook of Global Outsourcing and Offshoring, London 2011, Palgrave Macmillan.

2. **Mark J. Power, Kevin C. Desouza, Carlo Bonifazi**, Outsourcing – Podręcznik sprawdzonych praktyk, Warszawa 2010, MT Biznes.

3. **Tomasz Kowalczyk**, Sterowalne środowiska wytwórcze oprogramowania (Msc Thesis), Warszawa 2008, Warsaw School of Economics.

4. **Ryan Cush**, Pragmatic Offshoring: The Complete Guide to Managing an Offshore Software Development Team, 2008, Amazon Kindle Edition.

УДК [005.52:330.133.1]:338.2

ФОРМУВАННЯ КОНКУРЕНТНОЇ СТРАТЕГІЇ ДОМІНУЮЧОЇ ПОЗИЦІЇ В СИСТЕМІ НАКОПИЧЕННЯ ЦІННОСТІ: МЕТОДОЛОГІЧНІ ПІДХОДИ

КУЗНЕЦОВА І. О.

УДК [005.52:330.133.1]:338.2

Кузнецова І. О. Формування конкурентної стратегії домінуючої позиції в системі накопичення цінності: методологічні підходи

Розглянуто розвиток концепції системи накопичення цінності. Визначено методологічні підходи щодо ідентифікації та підтримки домінуючого положення підприємства у системі накопичення цінності.

Ключові слова: система накопичення цінності, домінуюча позиція, зернові компанії.

Рис.: 1. **Табл.:** 1. **Бібл.:** 4.

Кузнецова Інна Олександрівна – доктор економічних наук, професор, завідувач кафедри менеджменту ор-ганізацій та ЗЕД, Одеський національний економічний університет (вул. Преображенська, 8, Одеса, 65082, Україна)

E-mail: inna.stream@mail.ru

УДК [005.52:330.133.1]:338.2

Кузнецова И. А. Формирование конкурентной стратегии доминирующей позиции в системе накопления ценности: ме-тодологические подходы

Рассмотрено развитие концепции системы накопления ценности. Определены методологические подходы к идентификации и поддержке доминирующего положения предприятия в системе накопления ценности.

Ключевые слова: система накопления ценности, доминирующая позиция, зерновые компании.

Рис.: 1. **Табл.:** 1. **Библ.:** 4.

Кузнецова Инна Алексеевна – доктор экономических наук, профессор, заведующая кафедрой ме-неджмента организаций и ВЭД, Одесский национальный экономический университет (ул. Преобра-женская, 8, Одесса, 65082, Украина)

E-mail: inna.stream@mail.ru

UDC [005.52:330.133.1]:338.2

Kuznetsova I. A. Formation of a Competitive Strategy of a Dominant Position in the System of Value Chain: Methodological Approaches

Development of value chain conception is considered. Methodological approaches to authentication and support of enterprise dominant position in the system of value chain are defined.

Key words: system of value chain, the dominant position, grainproducts enterprises.

Рис.: 1. **Табл.:** 1. **Библ.:** 4.

Kuznetsova Inna A. – Doctor of Science (Economics), Professor, Head of the Department of Management of Organisations and Foreign Trade Activities, Odessa National Economic University (vul. Preobrazhenska, 8, Odessa, 65082, Ukraine)

E-mail: inna.stream@mail.ru

Прихід на вітчизняний ринок могутніх глобальних компаній докорінно змінив умови й способи ведення бізнесу та поставив проблему формування стійких конкурентних переваг вітчизняних підприємств. Розв'язання зазначеної проблеми потребує розробки нових рішень теоретичного та прикладного характеру, спрямованих на формування конкурентної

стратегії підприємства. Серед сучасних економічних інструментів представляє інтерес концепція накопичення цінності, яка дозволяє привернути увагу до стратегічно важливих видів економічної діяльності, які в майбутньому можуть стати фундаментом стійких конкурентних переваг підприємства.