FORMATION OF ENVIRONMENTAL FACTORS IN GLOBAL MARKET AND EVALUATION OF OUTSOURCING BUSINESS ACTIVITIES

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Abstract. Outsourcing is not only the engine of globalisation but also a new kind of competition. After evaluation of the opportunities and threats of outsourcing, policy of the country should be targeted at the increasing of the competitiveness of the country and the establishment of the new competition rules. Globalisation has more or less significant effects on all participants of global economics. It opens opportunities for companies to obtain different resources for lower prices. One of the ways to manage business more effectively is application of outsourcing. This way of procurement was usually used for obtaining goods (mostly semimanufactures) both from inside and outside of the country. However, recent rapid development of technologies and communications has generated the new way for obtaining high-qualified professionals from different countries and using their outsourcing services.

Keywords: outsourcing, transaction costs, business activities, contracts.

JEL Classification: D21, M21.

GLOBALIOS RINKOS APLINKOS VEIKSNIŲ FORMAVIMAS IR IŠORNAUDOS VEIKLOS RŮŠIŲ VERTINIMAS

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Reikšminiai žodžiai: išorna, sandoriai, išorinė sandėliai, veiklos rūšys, sandoriai.
1. Introduction

Since competition in global markets is becoming increasingly intensive, the specialists of economics are constantly looking for optimal ways of outsourcing which would enable to obtain the desirable results. Increasing pace of globalisation determines that the organisational structures and mechanisms of activity management in the companies are becoming increasingly sophisticated. While seeking for optimal allocation and use of the available resources, more cost reduction means have been applied. One of such means is outsourcing application, i.e. making contracts with other companies for carrying out certain activities. In other words, it is a transfer of some activities to a supplier from outside. 

Scientific problem – there is a lack of scientific research which would enable to establish the most important environmental factors and their impact on outsourcing processes. This raises the following scientific problem: what are the criterions of the formation of environmental factors in global markets? The evaluation of outsourcing business activities must also be presented.

The aim of this article is to establish the criterions of the formation of environmental factors in global markets and present the evaluation of outsourcing business activities.

The object of the article – factors of outsourcing environment.

The methods of analysis are as follows: logic, systematic analysis of scientific literature based on comparative and summary methods. With reference to the scientific literature, review of the internal and external environmental factors has been presented.

Practical application – this article reveals imbalances between outsourcing environmental factors and the real outsourcing practice.

Table 1. Concepts of outsourcing

<table>
<thead>
<tr>
<th>Author, year</th>
<th>The concept of outsourcing</th>
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<tbody>
<tr>
<td>L. Poppo, T. Zenger (1998)</td>
<td>Outsourcing is not a new concept; it is simply a newly-named long time practice of sub-contracting</td>
</tr>
<tr>
<td>D. Siegel, Z. Griliches (2002)</td>
<td>Outsourcing is the decision to transfer a part of internal business processes and responsibilities to outside suppliers</td>
</tr>
<tr>
<td>W. Scott-Jackson et al. (2005)</td>
<td>Outsourcing is delegation of one or more business processes to an outside supplier who manages and administers these business processes with reference to definite and measurable indexes</td>
</tr>
<tr>
<td>E. V. Bartkus, V. Jurevičius (2007)</td>
<td>Outsourcing is a rent of external resources which is more than just a purchase of raw material and intermediate products. It is finding a suitable partner with whom the company can form bilateral relations</td>
</tr>
<tr>
<td>V. Snieška, A. Drakšaitė (2007)</td>
<td>Knowledge outsourcing, contrary to the outsourcing of secondary business functions which usually include standardized activities, is related to the value creation activities for the customer at the end of the value creation chain. Performance of such activities requires specific knowledge in a particular field and especially high skills and competences. The object of knowledge outsourcing is related to the way of the creation of competitive advantage – intellectual property</td>
</tr>
<tr>
<td>V. Snieška, L. Vasiliauskiene (2009)</td>
<td>Outsourcing is an activity related to the obtaining of goods and services from the external sources which are not relative to the company</td>
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</table>

Table 1. Concepts of outsourcing

Fig. 1. Evolution of organizations and outsourcing (Source: Schniederjans et al. 2005)
2. The concept of outsourcing transaction costs and outsourcing types

Outsourcing is an up-to-date management strategy which means that some business activities, which are not directly related to the main activity of the company, are transferred to an outside partner. This way the company can direct its resources and finances to the main activities which generate the competitive advantage of the company.

The analysis of the scientific literature enabled the authors to systematise the concepts of outsourcing presented by different authors (Table 1).

The research has revealed that there is no united attitude to outsourcing as a concept. In broader sense, the term “outsourcing” is used to define the transfer of any kind of production to another location. Then this concept is related to the work and production activities while the term „global outsourcing” is used when new workplaces and production activities are created (creation of new workplaces).

According to Schniederjans et al. (2005), a traditional and present organization will tum into a virtual organization inseparable from global outsourcing (Fig. 1).

According to Javalgi et al. (2009), companies in the developed countries (e.g. the USA) find it difficult to retain their competitive advantage. Outsourcing is becoming an increasingly important way to enter new markets expecting for business renewal and orientation to lower cost activities.

The research has revealed that there are different types of outsourcing. The belief that each outsourcing activity can be concentrated in one group is wrong. This statement is not explicit because there are several kinds of outsourcing services and they can be grouped according to their nature and functions. What is more, there are new different kinds of outsourcing which require non-standard decisions. The terms chiefly mentioned in the sources of scientific literature are presented in Table 2.

The analysis of the scientific literature has revealed that the practice to transfer part of production to cheap-labour countries, for example to Asia, has spread among the biggest Western concerns. Services of Indian companies are extremely popular. On balance, the conclusion can be made that outsourcing determines allocation or repartition of business processes from internal to external sources. The choice of outsourcing supplier is determined by company’s activity, size, procurement. The process of the choice of outsourcing is identical to the choice of any other partnership.

3. Factors and evaluation of environmental transaction costs in global markets

Scientific literature is not distinctive with the abundant analysis of outsourcing transaction costs’ formation. Trade transactions can result in exchanging ownership rights between legal entities while making market transactions and in an informal way – inside the hierarchical structure of a big company, in the net of traders or even inside a family. The scientific literature (Klein et al. 1978; North 1994; North, Wallis 1994) describes the classification of different types of transaction costs, but practically the boundary between different types of transaction costs and direct outsourcing costs is very obscure.

In order to present a detailed analysis of transaction costs, it is important to carry out an integrated analysis of the concepts of transaction costs economics and the elements of transaction costs.

Transaction costs in scientific literature are generally defined as the costs which appear in time of a trade transaction while exchanging ownership rights in market transactions or exchanging responsibility in hierarchical structures.

<table>
<thead>
<tr>
<th>Types of outsourcing</th>
<th>Description</th>
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<tbody>
<tr>
<td>International outsourcing</td>
<td>Outsourcing supplier and customer are located in different countries</td>
</tr>
<tr>
<td>Outsourcing in neighboring countries</td>
<td>Similar to international outsourcing, but in this case the countries are neighboring, e.g. USA and Canada, Germany and France</td>
</tr>
<tr>
<td>Intermediate outsourcing</td>
<td>Work is performed with old systems when new systems are being installed, so business processes do not stop</td>
</tr>
<tr>
<td>Secondary outsourcing</td>
<td>Secondary company is joined to the outsourcing company and so a new company is created</td>
</tr>
<tr>
<td>Outsourcing of business processes</td>
<td>Full or partial services of business process optimization are provided</td>
</tr>
<tr>
<td>Outsourcing of business process changing</td>
<td>The main function is helping customer companies create new business models</td>
</tr>
<tr>
<td>Outsourcing of value added</td>
<td>The aim of customers and suppliers is to join products and services for sale</td>
</tr>
<tr>
<td>Internet outsourcing</td>
<td>Rent of computers, software, services and technologies through the Internet</td>
</tr>
<tr>
<td>Collective outsourcing</td>
<td>Outsourcing supplier works with some customers at the same time</td>
</tr>
<tr>
<td>Multiple outsourcing</td>
<td>Some supplier companies work together in order to ensure competitive prices, for example</td>
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</table>
In other words, transaction costs can be related to difficulties which appear while purchasing or selling goods or outsourcing services, when production site changes and supply chain is decomposed. These definitions of transaction costs, which are traced in the scientific literature, are abstract because the concept of transaction costs is much wider and more complex (Swenson 2004; Szymanski, Wilkins 1993; Tomiura 2005).

The development of transaction costs and the links of this phenomenon with international markets have been analysed by Feenstra (1998), Gatautis et al. (2002). Their studies name the originator of transaction costs economics – Coase (1937), and this theory includes four research spheres in which transaction costs are a predominant factor. According to Williamson (1998), the theory of transaction costs economics provides more opportunities to estimate the role of transaction costs for the functioning of economics. This shows that the perception of transaction costs is important for understanding of empirical phenomenon.

With reference to the theory of transaction costs economics, the expenses of transaction are positively related to:

- necessity to invest in long-term assets;
- irregular transactions;
- complexity and uncertainty of the task;
- hardly measured results of the task;
- independence from other transactions.

Past research revealed that outsourcing agreement has been introduced when a seller and a customer make a contract. Compulsory legal institutional systems determining the rights, duties, responsibilities and aims of each party have been anticipated in an outsourcing transaction, but politics and strategies have been based on a mutual agreement.

Estimating the importance of transaction costs, Gatautis et al. (2002) state that transaction costs are the costs which occur when goods and services are exchanges, but they are not the costs related to the creation of a good or service. The studies of transaction costs have been some of the numerous objects of economic research.

Coase (1937) introduced the concept of transaction costs economics, the main idea of which is that operation in the market includes overhead costs such as the costs of information search, the costs of negotiation or making a contract and the costs of signing. These costs can be eliminated or reduced under the supervision of the professionals. This concept became the object of the research of many scientists.

The analysis has revealed that in all cases outsourcing success depends on three factors: customer’s preparation to optimize business processes, staff training and informing and customer’s ability to manage newly-introduced business processes.

Outsourcing applying companies can concentrate on strengthening of competitive advantage, at the same time indirectly using competitive advantages of other companies. In addition, it is necessary to consider the effect of specialization. The companies of narrow specialization usually provide much more qualitative services than the ones of wider specialization. Considering outsourcing as a service sector, we can notice the same tendency, i.e. the more specific services are provided by the contractor (e.g. finance consulting services), the more qualitative these services are.

Outsourcing environment factors are formed evaluating the following points:

- data recency;
- relevance;
- methods of information processing;
- format of information delivery.

All the factors mentioned above reveal the core of comparative advantage in economics. Comparative advantage is closely related to production potential of the companies. Production potential is often limited by the quantity of labour resources, and alternative costs depend on the slope of production potential curve. In ideal case, companies would make only the goods or services which would increase profits. However, this situation is almost impossible because of the variety of market needs, fast changing customers’ priorities and needs, business risk and similar factors. Companies usually offer the set of goods or services which optimizes investment return – profit. So profit directly depends on production costs. This fact explains the benefit of the application of outsourcing transaction costs in economic activity of the company. For illustration of this tendency, we present the example with two companies working under the conditions of globalization. For instance, two companies make two goods (A and B). Since different economic factors such as uneven quantities of labour, capital and other resources influence activities of these two companies, it is more beneficial for each company to make different goods, i.e. first company benefits from specializing in making of good A, and the second one benefits from specializing in making of good B. In other words, the first company has comparative advantage in production of good A, and the second company had comparative advantage in production of good B. Production potential curves of both companies also have different slope (Fig. 2).

Since cooperation among companies in global markets is becoming easier (lower trade barriers, simpler business coordination enabled by technological progress, more opportunities to control activities located in different countries), it generates more possibilities to use competitive advantages of other companies. For instance, if the first company made a contract with the second one, additional economic benefit would be obtained because of an additional created quantity of goods (services) (Fig. 3).

So different companies use each other’s abilities to make particular goods for lower costs by sub-contracting. What is more, companies gain an opportunity to redistribute their resources in an optimal way, concentrating on the production (provision) of the most profitable good (service).
In this way, they get a short-time economic benefit because each of the companies can achieve its goal (profit maximizing) and meet customers’ needs (producing more items of the marketable good without constriction of the assortment). This model is based on the concept of comparative advantage. So the arguments that the companies using sub-contracting have to take similar positions in the market lose their importance because it refers not to absolute but to comparative advantage which enables even small companies to make contracts with the ones having big market share, and both of them get economic benefit. Similarly, outsourcing can be beneficial even to the companies which have absolute advantage in production of all their goods (services) if they make a contract with a company which has comparative advantage in production of particular good (service).

The analysis is mainly based on the research data:
- economy of scale;
- reduction of labor costs which can be obtained by using outsourcing;
- demand instability;
- access to specific knowledge and skills provided by an outside supplier.

These are the main arguments of trusting outsourcing (Abraham, Taylor 1996; Houseman 2001). Houseman (2001) states that the key reason for using flexible job contracts is the need to adjust the workload by transferring performance of the intensive, skill-requiring tasks to an outside contractor.

Conditions for outsourcing have emerged because of global politics and economics. Globalization as a phenomenon entrenched in the 20th century after the entrenchment of capitalism. The scientists argue whether this phenomenon has more positive or negative aspects. The effects of globalization on culture, technologies and other social, political and economic factors are extremely important. For these reasons globalization is often researched through different dimensions which are shown in Table 3. This research system explains effects of globalization in different aspects.

Globalization is usually researched through five dimensions which reveal positive and negative effects of this phenomenon on social, cultural, technological, political and economic spheres.

Generally, globalization caused many new trends in different aspects of economic and political activity: it fastened development of the countries and the volumes of international trade, created global production chains. Processes in these chains are the factors of outsourcing transaction costs.
Factors of global market environment generated international trade chains because crossing borders became simple, so part of production was transferred to industrial regions. This generated opportunities for international corporations to take dominant positions and divided the world into core countries and semi-periphery or periphery countries. Some scientists (Butter, Mosch 2003) argue that quality control, selection and qualification of supplier, legal environment and protection of intellectual property rights generate transaction costs which are difficult to measure and so can be treated as “soft” costs. Global market environment factors which have impact on any company have been presented in Fig. 4.

Some factors in III and IV squares are related to the ethical and social aspects of company’s behaviour. Anyway, the problem of income redistribution is the widest. It is important both at national level and discussing effects of globalization at global level. Income redistribution is the main element of welfare analysis: it is compatibility between equity and effectiveness which is the basic argument in economic discussions and while making political decisions. Equal distribution of income or social welfare, with reference to most economic studies, can be achieved at the expense of lower efficiency, e.g. at the expense of slower economic growth.

### Table 3. Dimensions of globalization and their impact on economic, cultural, technological, social and political factors

<table>
<thead>
<tr>
<th>Dimension of globalization</th>
<th>Importance/Impact</th>
</tr>
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<tbody>
<tr>
<td>Economic dimension</td>
<td>International trade, international cash flows → intensive capital, labour and knowledge movement among countries → open, integrated, global economics.</td>
</tr>
<tr>
<td>Cultural dimension</td>
<td>Intertwining of cultures, symbols. Unique culture of the country exists with common world symbols. Globalization → smaller cultural differences.</td>
</tr>
<tr>
<td>Technological dimension</td>
<td>Globalization → development of technological innovations, expanding of research fields, application of knowledge economics → competitive companies and countries.</td>
</tr>
<tr>
<td>Social dimension</td>
<td>Globalization → upright process serving for all. Globalization problems → aiming for uniform international work standards, equal wages, social care.</td>
</tr>
</tbody>
</table>

### Fig. 4. Direct aspects of the company and global market environment factors

<table>
<thead>
<tr>
<th>Subjective / qualitative factors</th>
<th>Objective / quantitative factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Creation / loss of workplaces;</td>
<td>- Search and information costs;</td>
</tr>
<tr>
<td>- Reputation / brand issues;</td>
<td>- Direct purchase costs;</td>
</tr>
<tr>
<td>- Organizational culture;</td>
<td>- Transport costs;</td>
</tr>
<tr>
<td>- Trust / relations with suppliers;</td>
<td>- Quality guarantees;</td>
</tr>
<tr>
<td>- Internal trade compatibility;</td>
<td>- Implementation / maintenance costs;</td>
</tr>
<tr>
<td>- Risk level.</td>
<td>- Training costs.</td>
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<td></td>
<td>II</td>
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<tr>
<td>III</td>
<td>- Legal base;</td>
</tr>
<tr>
<td>IV</td>
<td>- Currency;</td>
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<tr>
<td></td>
<td>- Import / export licences, levies;</td>
</tr>
<tr>
<td></td>
<td>- Labour costs;</td>
</tr>
<tr>
<td></td>
<td>- Governmental laws and regulations.</td>
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</tbody>
</table>

Fig. 4. Direct aspects of the company and global market environment
Comparative factors of social welfare function, i.e. costs of slower economic growth, paid by the country or society for higher level equity are determined choosing political priorities. These costs are considered external costs in the analysis of economic welfare. Similar compatibility exists among these three factors: profit, people and country. These are environmental factors which can mean lower profits or slower economic growth, especially in short time. The problem of such compatibility arises making choice between people and profit. In this case, people symbolize a generous system of social security at macro level (IV square) and favourable personnel policy at company level (III square) where the interests of employees have a big weight. The issues of income redistribution are government's responsibility. Political discussions on how to influence purchasing power of different households is the result of this responsibility. Although sometimes it is treated as business social responsibility, in fact it is also government's responsibility to ensure healthy environment and good social climate which can reduce profits in business sector.

The analysis of the scientific literature has revealed that different authors agree that outsourcing is a direct outcome of globalization. Labour force and resource redistribution and transfer to other countries help countries – customers and host countries remain competitive in international markets. This contributes to their development and makes them more attractive to external investment. Thus, the bipartite process of the choice of outsourcing ways continues and particular factors determine this process.

4. The results of the statistical comparison of different outsourcing activities

Outsourcing has become one of the main characteristics of business behaviour all over the world since 1990. It changes business activity boundaries and plays an important role adapting to global economics where increasing competition makes companies look for more effective and flexible ways of performance. At present business service outsourcing is one of the most dynamic spheres of economics. Although outsourcing decisions are often considered as a single decision, the impact of some outsourcing stimulating factors can be different, depending on the service which is going to be outsourced.

For further exposition of the importance of transaction costs to companies and national economy, with reference to the data of the Department of Statistics to the Government of the Republic of Lithuania, European Statistics Department, the Bank of Lithuania and the World Bank, the authors carried out the analysis of the outsourcing companies' most important economic relation parameters (sales revenue and number of the companies) during the period of 2000–2009. To this end, the links of these parameters with GDP and their dynamics in time have been analysed. The analysis also included the research of different kinds of outsourcing service activities highlighting the importance of the specificity of each kind. The dependence of the influential factors on GDP is analysed using linear regression, and the relation intensity in the sense of monotony is estimated using Spearman's correlation coefficient ($R_s$). The link between two characteristics is considered as very weak when the meaning of the correlation coefficient did not exceed 0,1, weak when the meaning of the coefficient gets into the interval from 0,1 to 0,4, medium when the meaning of the coefficient gets into the interval from 0,4 to 0,6, strong when the meaning of the coefficient gets into the interval from 0,6 to 0,8 and very strong when the meaning of the coefficient exceeds 0,8. The dynamics (variation in time) is estimated using linear regression. Determination coefficient ($R$-squared value) is used to estimate the accuracy of the regression function type choice. Determination coefficient is a proportion of the part of variation explained by regression function and all variations (Bagdonas et al. 2004).

The research of outsourcing services is based on the analysis of 11 different kinds of outsourcing business services. These are almost all business services with reference to European economic activity classifier. The only exception is courier services since they belong to the category of post services according to the European statistics classification. In the analysis, the outsourcing company is considered all square if it has presented a report to the Department of Statistics, has been liquidated, bankrupted, suspended its operations or its main activity is other than the researched outsourcing services. The results of the research have been presented in Figs 5, 6.

The research has revealed that:

- Direct linear dependence between telecommunication services' (J61) sales revenue and GDP is close ($R^2 = 0,94$), ($R_s = 0,93$). When GDP increased in 1 million litas, sales revenue had a tendency to increase in 0,021 million litas.

- The revenues of computer programming and consultation services (J62) had a tendency to increase ($R^2 = 0,9$, $R_s = 0,95$) while GDP was increasing (when GDP increased in 1 million litas, the revenues on the average increased in 0,010 million litas). It should be stated that with increasing of GDP, computer programming services (J6201) grew faster than computer consultation services (J6202), software maintenance services (J6203).

- The revenues of computer programming services (J62) had a tendency to increase on the average in 85 million litas a year. It should be stated that computer programming services (J6201) grew to a larger extent than computer consultation services (J6202) or software maintenance services (J6203).
It can be seen that variation of the number of the companies hardly depended on GDP and the number of the companies practically did not change in time (Fig. 7). Determination coefficient $R^2$ was high only for computer programming services, while it was ($R^2 = 0.96$) for computer consultation services and ($R^2 = 0.89$) for software maintenance services.

Business services are heterogeneous: from consultation to security services. That is why the decision to use outsourcing can also depend on the kind of the service and factors necessary for the provision of this service: human capital, wages, geographic distance, need of specific investment, outsourcing contract insecurity level, personnel functions.
Geographic distance between a customer and a supplier can play a different role depending on the business sphere. For instance, it is desirable for a security service to work close to the company or inside the company, so the choice of potential suppliers is limited with geographic distance. Too long geographical distance becomes limiting in such service spheres as cleaning services, security, control, maintenance services while such spheres as consultations on taxes and laws, software supply and maintenance are not limited by geographical distance. Variation processes between sales revenue and GDP, sales revenue and year are also important.

On balance, it can be stated that the decision to transfer a part of business services outside is also influenced by the need of specific investment. For instance, specific device or workers are not necessary for the provision of building maintenance and landscape management (N81), cleaning (N812), building and industrial cleaning (N8121, N8122) and other cleaning outsourcing services (N8129). These services do not require too much investment, but the companies prefer using outsourcing services. On the other hand, the quality of the services provided by an outside supplier is difficult to control (e.g. it is difficult to control the quality of the consultation on taxes), so the probability of contract imperfection increases. For the reduction of this probability, the companies often choose performing of a particular, not too big part of the service inside.

5. Conclusions

1. Different attitudes to the importance of transaction costs have been analysed, the concepts of the theory of transaction costs economics have been systematized and the concept of outside resource using has been specified. The research has revealed that namely this concept reflects other determinations of outsourcing most objectively, so it is highlighted as the main statement with reference to which outsourcing companies can be called outsourcing organisations.

2. Globalization caused many new trends in different aspects of economic and political activity: it fastened development of the countries and the volumes of international trade, created global production chains. Processes in these chains are the factors of outsourcing transaction costs.

3. For the exposition of the importance of transaction costs to companies and national economy, with reference to the data of the Department of Statistics to the Government of the Republic of Lithuania, European Statistics Department, the Bank of Lithuania and the World Bank, the authors carried out the analysis of the outsourcing companies’ most important economic relation parameters (sales revenue and number of the companies) during the period of 2000–2009.
References


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