

# THE IMPACT OF TRANSACTION COSTS ON OUTSOURCING CONTRACTS: THEORETICAL ASPECTS

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## Abstract

The reduction of transaction costs prompts higher requirements and results in split of resources and production for an enterprise. However, in the process of globalisation, when trade barriers are falling down, transaction costs are becoming an increasingly important issue. Transaction costs are connected with searching and upholding reliable business partners, negotiation, formation of the contract and its control. For evaluation the negative factors of the economic decline, it is discussed whether it is worth joining in associations and making different procurement transactions during this period of the economic decline. Most companies in this period concentrate their effort on survival, but not on development, so business initiative obviously shrinks during such economic periods. What is more, it is significantly limited by increasing costs for credits and low liquidity of the stock markets. That is why transaction costs emerge because of the formal trade barriers such as import restrictions and tariffs. Transaction costs are inevitable as well as transport costs, and they take the significant part of all costs of any contract. Transfer costs economics, which previously was mostly used for the evaluation of outsourcing decision processes, now is considered to be an applicable theoretical background for outsourcing decisions.

*Keywords: The theory of transaction costs, outsourcing contracts, transaction costs.*

## Introduction

If coordination processes in the company are organised effectively, then transaction costs decrease. The reduction of transaction costs prompts higher requirements and results in the split of supply chain and production outsourcing. In spite of united effort very few outsourcing projects proceed as it is expected. All projects are risky, contracts are not perfect, transaction costs and output are often obscure. That is why when a company decides to outsource the part of supply or production, it is important to determine how risks should be allocated between the parts of the contract – the principal and the agent. The formation of the contract is an important factor of the project success. All these factors make a single structure which is considered in the following chapters. Of course, the most effective results are achieved when the contract is projected the way that part of the risk goes to the agent and so the possibilities of cost reduction are ensured.

With the processes of integration and globalisation all over the world, businessmen take an initiative to expand their activities in other countries, starting with international trade and ending with international companies. Vertical disintegration, or vertical fragmentation, is especially well noticed in international trade. Companies look for the partners in technologically and legally advanced, developed countries or are search for low salaries in the countries that are less developed economically. High level of vertical fragmentation is characteristic to the modern industrial production. However, it is obvious that there exists not only vertical fragmentation but also fragmentation of production in international scale, which can be seen as the growth of trade of intermediate products (Bartkus E, V, Jurevičius V, 2007).

**Originality:** the authors have systematized different attitudes to the importance of transaction costs and the potential of their reduction, introduced the concepts of the transfer cost economy theory. On the basis of the transfer cost economy studies, the elements of the outsourcing contractual relation management have been analysed and the structure of the transaction cost factors for outsourcing contracts has been presented.

The scientific problem that has been posed in this article is the lack of the united opinion in the economical literature about what the possibilities to keep transaction costs low are. Also there has been noticed the lack of the solid structure of the transaction cost factors, and the problem of acquiring comparative advantage in transfer cost economy has been issued.

**The aim of the article** – to research the impact of the transaction costs on outsourcing contracts.

**The object of the research** – the impact of the transaction costs.

**The objectives of the article:**

1. Determination of transaction cost economics strategy, evaluation of the influence of transaction costs on the performance of transaction cost economics.
2. Presentation of the transaction cost analysis and determination of the main principles of the outsourcing contract formation.

3. Analysing the impact of transaction costs variability on the risk allocation of the both parties of the contract.
4. Highlighting the main factors of external and internal environment of transaction costs, research their influence on outsourcing contract formation.
5. Presentation of the results and conclusions.

*The research methods used in the article* include the analysis of the scientific literature, comparison of the analytical articles published by Lithuanian and foreign authors and the empirical analysis of the research result.

### **The impact of transaction costs on the performance of economics**

The statistical research of the markets reveals that some market contracts do not arrive at the equilibrium of the competitive markets because of transaction costs. The value of goods and services depend not only on production costs. The price which is agreed in the contract often includes the costs that have accumulated because of the making the contract but not because of production of the goods.

Transaction costs are the costs that emerge when the goods and services are exchanged, but these costs are not connected with the creation of goods or services. The research of transaction costs are some of the objects of the economic research (Gatautis R; Neverauskas B; Snieška V, 2002). The research of transaction costs have been started to perceive why business companies have been set up. The forms of acquisition and association have always generated some additional potential in spite of the stage of the economic cycle. Some of the most important reasons why acquisition and association contracts are made include the slow-downs of the economic growth.

According to transfer costs economics, the basis of an outsourcing decision is the ability of a company to use the economy of scale practising outsourcing (Snieška V, Vasiliauskienė L, 2008).

Transaction cost economics theory (Williamson, 1998) provides more possibilities to evaluate the role of transaction costs on the performance of economics. This theory reveals that the perception of transaction costs is important for understanding of some empirical phenomenon which can not be explained without considering these costs. The theory turns round four research spheres in which transaction costs are the dominant factor. These are:

- 1) production organising while considering the limiting factors of the company (with reference to Coase theory);
- 2) international trade considering the multiple aspects of transaction costs, distinguishing them from transport costs, institutional costs and cultural costs of the exchange;
- 3) direct foreign investment considering outsourcing and the organising of the company in the context of globalisation;

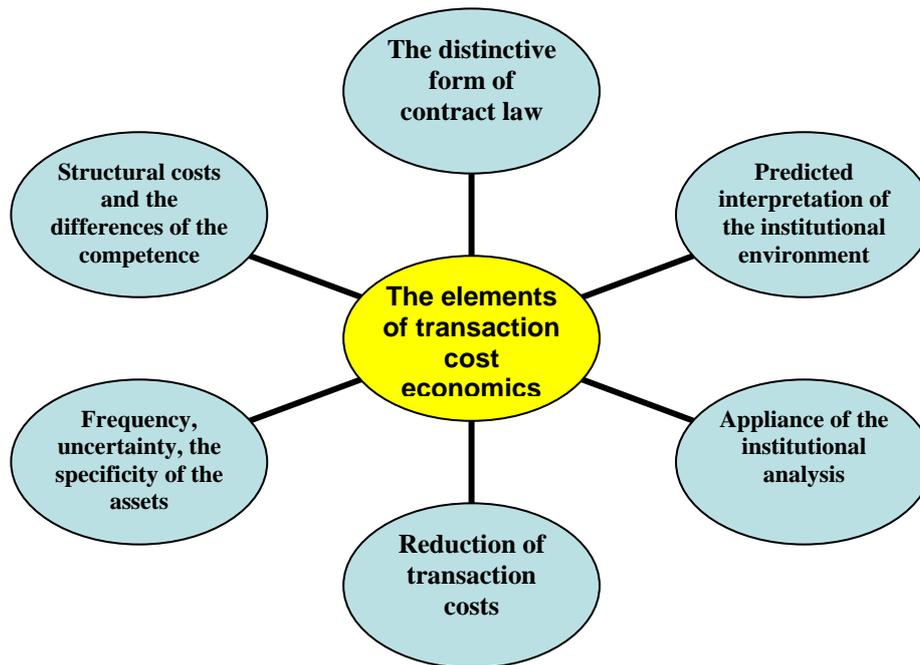
Institutions play the main role in transaction cost economics. Different institutions can generate different types of transaction costs. Transactions are usually carried out on the basis of formal or informal contracts. It is extremely important to keep transaction costs low in the arena of international trade and in the context of globalisation.

Transaction costs economics enables us to take a deeper look at the effect of specialisation that promotes welfare. On the other hand, it limits the volumes of specialisation (Williamson, 1998). Transaction costs economics reveal the evident link between transaction costs and production efficiency. When the transaction is simpler, the factors of transaction costs even facilitate the transaction. But if the transaction is more complicated, then more sophisticated contracts should be practised. The proceeding of more sophisticated contracts increases transaction costs. At the particular moments transaction costs will be so high that it becomes more efficient to produce inside the company which reduces transaction costs and sophisticated contracts are not necessary.

Notably, Lithuanian innovation policy scope remains narrow, i.e. it is oriented towards high-tech sector development. On the other hand, more efforts have to be put in applying innovation policy in broader scope, i.e. upgrading technologies in traditional industry sectors and upgrading skills and qualification (Adekola A, Korsakienė R, Tvaronavicienė M, 2008).

Coase (1937) introduced the concept of transaction cost economics, according to which performance the market includes additional costs such as information search, negotiation or contract making and signing. These costs can be eliminated or reduced if the activity is performed with the supervision of the experts. Many researchers have analysed this concept since its appearance. Its theoretical aspects have been

implemented for different forms of contracts in industry and trade. The main concepts of transaction cost economics consist of these elements (with reference to Williamson and Masten, 1995; Williamson, 1996):



**Figure 1.** The main elements of the concept of transaction cost economics. Designed by the authors with reference to (Williamson and Masten, 1995; Williamson, 1996)

*In conclusion, the model of transaction cost economics is applied while making the service outsourcing decision as the most effective possible decision.*

### **The theory of transaction costs**

Transaction costs are all costs which are generated making trade contracts or exchanging goods or services in market contracts. Transaction costs can be related with difficulties which emerge selling goods or services when the location of production or resource mining has been changed. The businessman who is able to keep his transaction costs low will have more possibilities to offer an attractive product to the market because the costs of this type play the big role in international trade as well. The types of transaction costs highly depend on how the procurement with resources has been defined and what aspects have been considered while making the make-or-buy decision. The on-line encyclopaedia Wikipedia presents quite wide definition of „procurement“. Wynstra (2006) has grouped different definitions of this discipline and also the definitions of the concepts „purchase“ and „supply management“ which are closely linked with procurement. He mentions these definitions of „procurement“:

“The decision making process by which formal organisations establish the need for purchased products and services, and identify, evaluate and choose among alternative brands and suppliers” (Webster and Wind,1972).

“Obtaining from external sources all goods and services which are necessary for running, maintaining and managing the company’s primary and support activities at the most favourable conditions” (Van Weele, 1994).

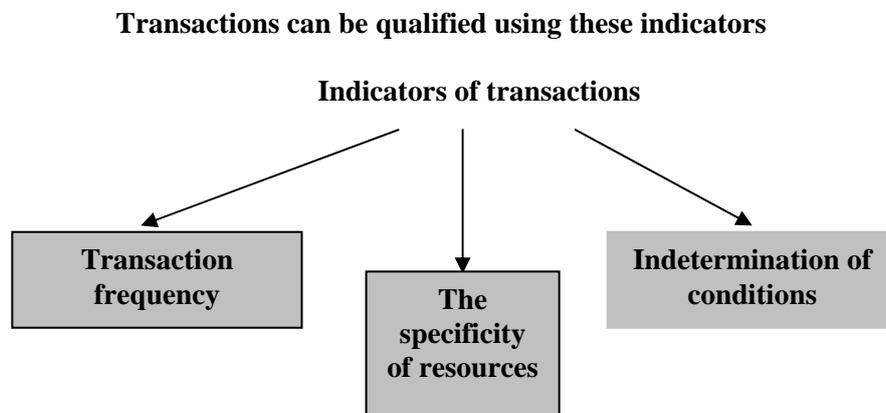
A common element of these definitions is that they describe procurement as a decision process where total costs for the firm are minimised. Moreover, procurement seems to be restricted to purchase from suppliers at the market, so that it does not include the “make or buy” decision. Minimizing total costs of ownership implies that not always the supplier with the lowest direct costs will be selected.

*Here we can come to conclusion that the seller who offers resources with higher direct costs will be preferred when this higher price is matched by a larger reduction of transaction costs.*

The main idea of transaction cost concept is that it makes clear what costs must be included in total costs of ownership and it provides a clue of which costs must be considered in the selection of a supplier.

O.E. Williamson (1985) divides transaction costs into three parts:

1. Information costs. These are the costs that are linked with the information about the products, partner search and prices.
2. Negotiation costs. These are the costs of making a contract, e.g. payment for lawyers, agents.
3. Observation costs. When a contract has been made, it must be monitored to ensure that everything is performed according to the terms of the contract.



**Figure 2.** Indicators of transactions. Designed by the authors with reference to (Williamson 1979, 1981)

O.E. Williamson expands and supplements R.H. Coase (1937) theory about the costs of price mechanism application. The theory of transaction costs is based on the concepts of the limited rationality and the specificity of resources. O.E. Williamson (1981) proposes that all three conditions really exist while making a contract.

Analysing the articles published by foreign authors concerning the impact of transaction costs on contracts, we can conclude that the terms of long-term contracts often cause difficulties. However, namely long-term contracts are the reason of setting up a company. There are indicated two stages of a transaction: in the first stage, all possibilities are potentially available but they are impossible to predict and institute in the contract. In the second stage the contract has already been made and if it has been done under the market conditions, no essential changes are impermissible.

The more detailed phases of a trade contract contact, contract and control. All these stages of a trade contract bring about transaction costs (Den Butter and Mosch, 2003). In the first phase, the buyer is looking for information about his preferred product, its price and quality, potential suppliers. In this case transaction costs are mainly search and information costs.

The *contract* phase starts directly after the moment the potential trading partners have found each other and are inclined to make a deal. Here transaction costs are made in negotiating the terms of the contract. The phase of *control* consists of the monitoring and enforcement of the contract. Both involve high transaction costs, especially at large distances. Monitoring means that business partners check whether the other party is doing what it had promised to do.

### **The impact of transaction costs on risk allocation of the contract parties**

In fact, very few outsourcing projects are pursued as it is determined in contracts. It is because all projects are risky: contracts are not perfect, project costs are uncertain and quite difficult to determine. So when a company makes decision to outsource a part of production or supply, it is important how the risk should be allocated between the parties of the contract (the principal and the agent). Uncertainty plays an important role in the theory of effective contracts. If a company is risk-averse, it will demand for a certain premium for bearing this risk. As the level of uncertainty increases the risk premium increases and risk sharing arrangements become more efficient. In other words, contract theory predicts a trade-off between risk and incentives.

For showing and proving the standard trade-off between risk and incentives, we should analyse the outsourcing decisions which are linked with many different types of risk.

For projecting an effective contract, companies or government institutions have to allocate this risk properly, and it is not an easy task. Suppose that the government decides to outsource the design, construction and operation of a strategic object to a potential investor who will attract new customers of this service. It means that the government can choose to transfer risk of uncertain future revenue stream to the private sector because it would be a strong incentive for a private company to engage in effort to increase patronage. This appears to be a simple solution to the problem. However, there are a couple of factors that this solution does not account for. Firstly, if the level of demand uncertainty is high, the agent will charge a high risk premium which will negate some of the benefits of transferring this risk to the contractor. Secondly, the agent's incentive to increase patronage level is weakened because of the fact that demand for this service depends on exogenous factors. Forcing the agent to bear exogenous risk weakens performance incentives.

Contract design and the allocation of risk clearly play an important role in the success of outsourcing relationships. If the contract is poorly designed, it results in the government insuring the agent against the most of the risks, the burden is transferred to tax payers and the government has to apply the undertakings.

Despite the attention paid in the scientific literature to moral hazard problems and contract theory in general, there is a surprising paucity of empirical analysis in this area. The problem is that scientific research is concentrated on theoretical but not practical analysis.

### **The elements of formation outsourcing contracts**

All transactions are mediated by contracts. Whether it is a simple spot transaction where the contract is verbal and the exchange takes place instantaneously or a long-term transaction relating to continuous provision of a complex service, the exchange is governed by some form of contract. In the environment of outsourcing most of the contracts are of the latter type. When designing a contract of such transaction the purchaser must consider the issues relating to provision of incentives for performance and allocation of risk. These issues are considered in contract theory.

To understand the issues involved in designing efficient contracts between companies, consider the characteristics of the three common types of contracts:

- Fixed price;
- Cost-plus-fixed-fee;
- Incentive contracts.

In a fixed-price contract the agent submits a price of a job and agrees to provide the specified goods or services at the quoted price. Then the total payment made to the agent is equal to the agreed price and does not depend on the variability of the costs. Contract renegotiation costs will also be high since the agent wants to be reimbursed for any additional work.

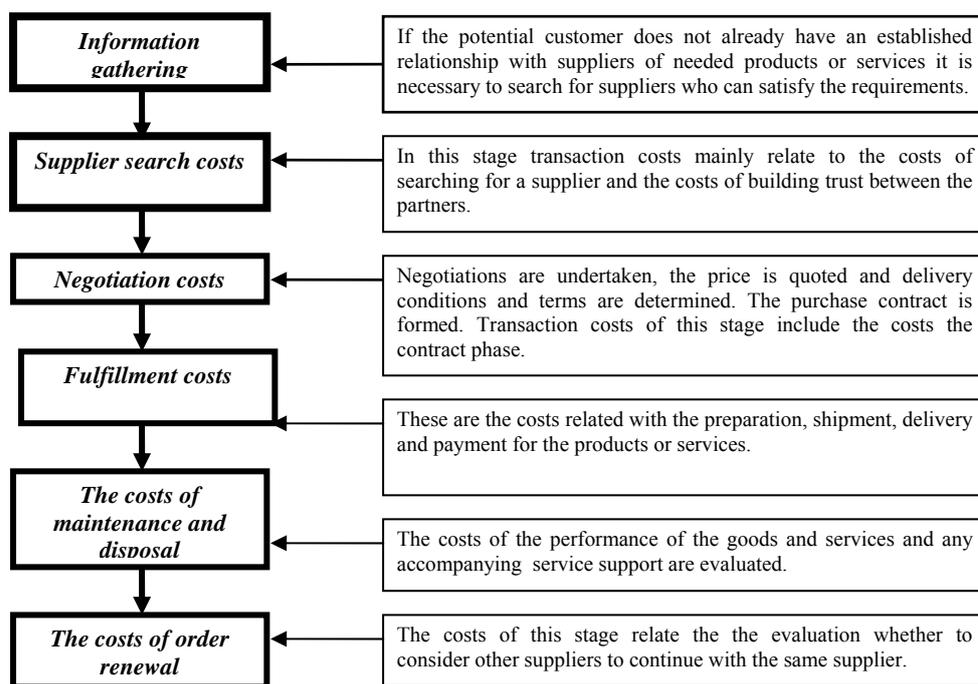
In a cost-plus-fixed-fee contracts, the principal completely covers the agent's actual costs and pays the agent an additional fixed fee. Thus, the principal fully insures the agent against possible cost uncertainty. In this type of contracts, there are low-powered incentives for productive efficiency since the agent is insured that all costs are paid. It encourages the agent to shirk or to pad costs if his effort is unobservable. This is the well-known moral-hazard problem. However, costs-plus-fixed-fee contracts are free from the quality shading effect. Actually, these contracts often encourage quality improvement since the agents try to produce the highest quality possible because they are reimbursed for all their efforts. Thus, cost-plus-fixed-fee contracts are often used for contracts where quality is extremely important or where the task is extremely complex such as submarine construction (Crocker ir Reynolds, 1993). They are also practised when services are difficult to define and there is a high probability of contract renegotiation (Bajari ir Tadelis, 2001).

The third type of contract is called an incentive contract. Then the agent is paid a fee and the principal agrees to pay a pre-determined fraction of all costs to the agent. For instance, the contract can stipulate a condition that a fixed fee has to be paid if the product or a service is delivered as per the specification on an agreed date, with bonuses to be paid if the product or the service is delivered earlier. This type of incentive is often used in construction contracts. In this type of contracts, the agent is guaranteed a certain level of payment but also bears the risk that can affect his ability to complete the jobs in time. However, he is recompensed for bearing this risk.

### **The factors that have impact on transaction costs**

Since the impact of transaction costs on outsourcing contracts has not been exhaustively researched, after the analysis of the propositions that foreign authors has made about the importance of transaction costs

on outsourcing contracts we can determine and systematize the structure of transaction cost factors that influence outsourcing contracts.



**Figure 3.** The structure of transaction cost factors for outsourcing contracts 2009

Williamson (1971) indicates that specific investment has to be made for a certain transaction. Non-specific investment can cause the problems with the contract because the purchaser of goods or services can simply find another supplier. It is the best and the most efficient way to practise long-term contracts. This hypothesis has been confirmed with the empirical evidence from different industries, including the production of auto parts and coal mining (Monteverde and Teece, 1982; Loynes, 1994, 1995; Coles and Hesterly, 1998; Walker and Webber, 1984; Masten, 1984; Joskow, 1987).

The development of information technologies can reduce transaction costs and coordination costs and thus facilitates market transactions between companies. Transaction costs can go down when market exchanges are facilitated by information technologies. Electronic transactions can cost less than physical transactions. Fixed costs for making the presentation in the internet can be lower than the costs necessary for the arranging the physical presentation (Gatautis R, Neverauskas B, Snieška V, 2002).

It has been noticed that market thickness (the number of possible competitors) is an important factor for making contractual relationships.

Firstly, both parties of the contract get useful alternatives whether acquiring or selling business. From the customer's point of view, during the period of economic recession companies have been estimated more conservatively than during the period of economical upheaval. This inevitably leads to lower evaluation of such companies considering the alternatives of their acquisition and association. That is why during the period of economic recession it is possible to acquire an attractive business with a considerable discount. It is paradoxical but the things that were impossible during the period of economic upheaval become absolutely possible during the period of recession. In addition, the other party of the contract that sells a company (or a business) gets some additional circulating asset which becomes the significant advantage during the period of economic recession and decrease of liquidity in finance markets.

Transaction cost reduction and vertical or horizontal integration of the company enables to reach the effect of economy of scale, use wider distribution channels, more diversified customer base or bigger market power in negotiations with other market sharers. All these factors enable to reduce the effects of growing costs on business results. Fast growing costs are one of the most important factors which at present time exacerbate the financial state and future prospects of all companies. The contracts of acquisitions and

associations provide the opportunity to reduce the effect of growing costs on business results and gain a significant competitive advantage in the market.

One more reason why it is worth considering the alternative of acquisition is the attraction of finance. It is usual that during the period of economic recession it becomes more difficult to attract finance because of the reduction of liquid assets in the market and stringent bank requirements. When the other company with low indebtedness is affiliated, it increases the possibilities to attract some additional capital necessary for the business expansion. Besides, this increases the potential to get financial resources under more favourable conditions. A successful contract enables the company to expand its outputs, adopt new technologies. It happens that the companies from one or another business group (independent legal entities) seek to reduce the costs of their economic performance and make so-called „cost distribution contracts“. The nature of cost distribution contracts is that companies join together for acquiring some collective assets, services or rights without establishing any new legal entity. In this case the part of the costs of every company that takes part in the contract has to be equal to the benefit the company gets from the contract. Cost distribution contracts can be made between separate, independent legal entities or between an independent legal entity and its subdivisions that have been established in other countries of the European Union.

When cost distribution contracts are made between independent legal entities, e.g. when one independent company carries out the functions that are used by other independent companies in the group, it can be stated that the first company provides the services necessary for the latter ones. What is more, so-called „balanced payments“, which are paid in the case when the costs of the company for carrying out these functions are higher than the benefits, confirm the fact that these payments should obviously be linked to the provided service and has the direct connection with it.

### Conclusions

1. Because of the transaction cost factors globalisation can generate new challenges for companies while procuring themselves with resources. Transaction costs are becoming more and more important as a part of total ownership costs so the effective application of transaction costs under the influence of transfer cost economy is really necessary.
2. Ethical aspects of the behaviour of the companies play an important role in globalisation when it is attempted to keep transaction costs low in the long run trade.
3. The better is the organisation of coordination processes, the lower are their transaction costs. That is why the reduction of transaction costs generate higher requirements and finish in further split of the supply chain and production.
4. A successful transaction enables to expand the business of the company and develop new technologies. These factors allow creating a sufficient potential for further business development and giving more opportunities to prepare for the periods of economic recession or upheaval.
5. Transaction costs, which during the period of economic recession are lower than during the period of upheaval, later will be compensated with higher profits of economic upheaval.
6. There are much more arguments why it is worth making the contracts of acquisition and association. Opportunities always exist in spite of the point of economic cycle. It is important to note that any decision of business development depends on business strategy, aims and preparation for the development. Only clear and coherent business strategy, correctly formed aims and the detailed projecting of the possible alternatives can ensure the success of the transaction and embrace the current situation in the market.

### References

1. Archer, N. and Y. Yuan, 2000, Managing the business to business relations through ecommerce procurement life cycle, Internet Research: Electronic Networking Applications and Policy 10, pp.385-395.
2. Adekola A, Korsakiene R, Tvaronaviciene M, 2008 “ Approach to innovative activities by Lithuanian companies in the current conditions of development”, ISSN 1392-8619 print/ISSN 1822-3613 online., VGTU, Technological and economic development OF ECONOMY, Baltic Journal on Sustainability., 14(4): 595–611, 2008.
3. Bajari, P. and S. Tadelis, 2001, Incentives versus transaction costs: a theory of procurement contracts, The RAND Journal of Economics 32, pp. 387-407.
4. Butter, F.A.G. den, 2007a, Economische deugden (Economic virtues), Economisch Statistische Berichten, 92, pp. 300-302.

5. Bartkus E V, Jurevičius V, Rent of resources in international trade, ISSN 1392-2785 Engineering economics 2007/1., psl 67.
6. Butter, F.A.G. den, and R.H.J. Mosch, 2003, Trade, trust and transaction costs, Tinbergen Institute Discussion Paper TI 2003-082/3, 26 pp
7. Coase, R. H., 1937, The nature of the firm, *Economica N.S.*, 4, pp. 386-405.
8. Feenstra, R.D., 1998, Integration of trade and disintegration of production in the global economy, *Journal of Economic Perspectives*, 12, pp. 31-50.
9. Gatautis R, Neverauskas B, Snieska V, „The impact of the Internet on transaction costs and mediation services“, ISSN 1392-2785 Engineering economics 2002/3.
10. Snieska, V., Vasiliauskienė L, „The analysis of transaction costs in the outsourcings of manufacturing enterprises. The case of Lithuania“, ISSN 1822-6515 *Ekonomika ir vadyba - 2008 = Economics and management - 2008* : [13-osios] tarptautinės mokslinės konferencijos pranešimų medžiaga [Elektroninis išteklius] / Kauno technologijos universitetas. Ekonomikos ir vadybos fakultetas, Kaliningrado valstybinis technikos universitetas. Ekonomikos fakultetas, Rygos technikos universitetas. Inžinerinės ekonomikos fakultetas. ISSN 1822-6515. 2008.
11. Pilinkiene V., “Market Demand Forecasting Models and their Elements in the Context of Competitive Market”, ISSN 1392-2785 ENGINEERING ECONOMICS. 2008. No 5 (60).
12. Monteverde K, Teece D.J, 1982 “Supplier switching costs and vertical integration” *Bell Journal of Economics* 13 (1), 206-213.
13. Williamson, O. E., 1998, Transaction cost economics: how it works; where it is headed”, *De Economist* 146, pp 23-58 .
14. Wynstra, J.Y.F., 2006, *Inkoop, Leveranciers en Innovaties: van VOC tot Space Shuttle*, Inaugural Adress, Erasmus Research Institute of Management, Rotterdam
15. Webster jr., F.E. and Y. Wind, 1972, *Organizational Buying Behaviour*, Prentice Hall, Upper Saddle River NJ.
16. Weele, A.J. van, 1994, *Purchasing and Supply Chain Management*, Thomson Learning, London.

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