

DEVELOPMENT OF THE ACCOUNTING CENTER OF TRANSACTION COSTS FOR ENTERPRISES

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Abstract

External factors, such as economic sanctions, financial crisis, and other distresses, capitalize on a need of innovations for efficient operations in economies around the world. In domestic economies, transaction costs is an important aspect for companies, so, to be efficient, companies need to consider transactional component for investment projects. Nevertheless, the assessment of transaction costs is a matter of uncertainty for many companies. The purpose of the study is to examine the “hidden” factors that lead to the increase in transaction costs and, based on this information, optimize the transaction component of company’s business processes. Using evidence from Russia’s economy, the study will focus on the development of a methodological approach to the evaluation of transaction component in business processes, as well as the implementation of these findings in transaction analysis of business performance. Authors developed the accounting center of transaction costs, the structure of transaction costs accounting system, and the function of a department that is responsible for the transaction costs accounting for an enterprise in Sverdlovsk region.

Keywords: public-private partnership, investment project, transaction, transaction costs, and transformational costs

JEL code: C82, D24, E11

Introduction

Economic sanctions and world financial crisis affect Russia’s economy at a degree that has never been seen before, so that, to adapt to new factors, economic entities need to employ new approaches for conducting businesses. An optimization of transaction costs is a feasible course if action.

The criterion of «transaction costs» is an important component of economic analysis of company's operations. Transaction costs help to examine the economic expediency of

management decisions regarding transformations in organizational and institutional structures. Seeking to decrease transaction costs and to adapt to prevailing market conditions, proprietors and managers make decisions on optimization of organizational and institutional structures. The process of making these decisions assumes interactions between economic state regulatory authorities and market mechanisms in order to work within public-private partnerships (PPP).

Effective management of PPP projects is possible only using comprehensive approach that involves the integration of political processes and institutional reforms. While implementing investment PPP projects, government faces several problems. The most common problems encompass: establishment of new and development of existing institutions; development of procedures for ensuring operational efficacy of PPP projects. This fact determines the significance of the institutional component in the development of PPP (Kosmin, 2014).

Within framework of PPP, development of mechanism that allows the government to decrease transactional costs is important, and effective search for partners within private companies is a possibility.

Russia's government has to maintain a high level of competitiveness, which is primarily achieved through savings of public funds and the introduction of innovative production technologies.

Many private companies involved in PPP projects do not have the necessary resources to compete with bigger players; which requires a thorough strategic selection of PPP projects. Therefore, the government needs to increase the attractiveness of social and investment PPP projects on the market.

When a company decides to participate in the tender for PPP project it takes two main factors into consideration: the scale of the PPP program and the availability of successful projects. Potential members of PPP projects from private sector are engaged by the government, which has a number of programs for implementing PPP projects. These programs give private sector the opportunity to adapt to the existing economic and legal conditions and successfully carry out their activities. Therefore, the greatest competition for PPP projects noted in those countries, where there are well-regulated programs for implementing such projects.

The second factor is that the successful implementation of the pilot PPP projects in the country is very important to increase the level of competition in respect of future projects. Successful precedent greatly enhances the attractiveness of the local PPP market and

promotes competition as strengthens its credibility for the private sector. As the trust strengthens, the number of companies willing to take part in competition for PPP projects increases. "The public authorities need to know about the existence of these factors, as they may have a significant impact on the implementation of PPP projects" (Coase, 2009).

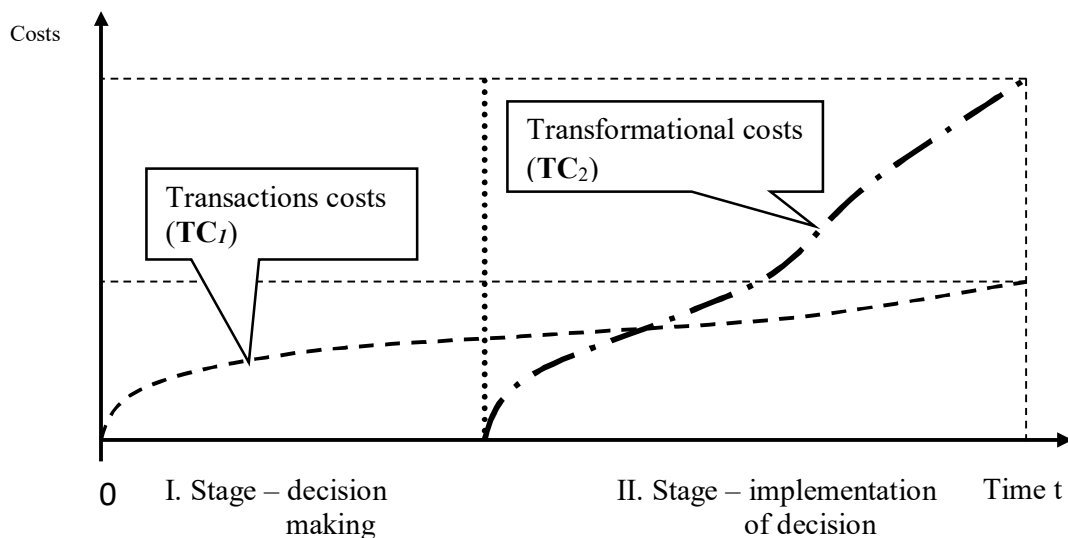
1. Integral costs in management decision-making process

The process of adoption and implementation of the administrative decision is a logical sequence of operations - an algorithm that can be divided into two stages (Kosmin, 2014):

Stage I - decision-making; Stage II - implementation, monitoring and performance analysis of the decision. In the accompanying process management decisions can be classified as follows: Only transaction costs; transaction and transformation costs (Fig. 1).

The first stage may include the following: purpose, research and information gathering, information analysis, management objectives in addressing the problem, the development of the criterion of efficiency solutions, formulation of options, comparison of options based on their expected performance and the choice of solutions (calculated as the expected effect and the necessary costs of its implementation), managerial decision making, execution.

Fig. 1: Graph of transactional and transformational costs growth during decision making and decision implementation



The second stage is the implementation, monitoring and analysis of performance of a decision made (is determined by the actual effect of the decision implementation and the actual costs of its implementation).

Recording and analysis of these costs allows to evaluate the quality of the decision more objectively. It helps to understand how successful was its implementation.

In the accompanying process management decisions can be classified as follows: only transaction costs; transaction and transformation costs.

Transaction costs are beginning to emerge in the first stage - a decision that starts with the search process, the collection and analysis of information (Popov, 2008). The key to understanding the transaction costs at the stage of adoption is the cost of obtaining information. Any information that is required for the decision-making obtains at the expense of some effort. Obtaining this information is related mainly to the remuneration of employees and intermediaries, marketing expenses, etc.

Total costs can be represented as the sum of transaction costs and transformation costs, i.e., expenses associated with the conversion of costs into finished products (Coase, 1960).

The former is determined by technological factors, and the latter is determined by institutional (legal) factors. However, both parts of the total costs are closely linked and to a certain extent interchangeable. The analysis of these costs allows managers to evaluate the quality of the decision more objectively.

Transaction costs affect the choice of production mode, while changes in technology and the level of transformation costs may affect quantity of market transactions and other economic processes. It should be noted that a company's agreements can be either external or internal, and that there are two kinds of costs that correspond with each type. These are transaction costs, and administrative (or organizational) costs. Transaction costs are the costs incurred to ensure external contract compliance. The administrative costs are the costs that are associated with internal agreements. Administrative costs include the costs of monitoring the implementation of internal agreements, losses due to unsatisfactory contract implementation, and others.

From this point of view, a company and a market are alternative ways of creating agreements. A market is a network of external agreements, and a company is a network of internal agreements. The choice between external and internal transactions depends on the ratio costs of their use; as transaction costs increase in comparison to administrative costs, the more likely the external transactions are to transition into internal operations and production methods to address company needs, rather than through the market. Both micro-level, and

macro-level, transaction costs need to be considered. Macro-level transaction costs are the general costs of managing and operating an economic system.

Each organizational form has its own structure of transaction costs. Market structures tend to save on opportunistic behavior costs. However, economic activity cannot avoid costs associated with information research, management, and decision-making. According to estimates by various authors, the share of transaction services that are provided to private and government sectors in Russia is constantly increasing. The reason is that the transaction costs move from off-market, to within the market sphere.

For most countries, including Russia, the last decade was a period of struggle for effective economic development, and improvement in their level of competitiveness. The problems that arose required the development of a new set of measures that go beyond the competence and financial capacity of the public and private sectors of the market, due to the incremental nature of measuring product quality costs.

Transaction costs determine the nature and form of many processes that accompany the economic activity of the subjects. In this case, the companies are the subjects. It is necessary to distinguish two approaches in estimating the value of transaction costs – the ordinal and the cardinal (Iskoskov, 2011).

The ordinal approach distinguishes the direction of transaction cost change, and offers a further comparison of the results from different areas of institutional relationships (Iskoskov, 2011). The cardinal approach is a search for the absolute quantitative values of transactional costs. The use of either approach depends primarily on the purpose of the study. This article focuses on the quantification assessment of hidden costs, which actually serves to blur the concept of “transaction costs”. These costs have a significant impact on the performance of a company. Other types of transaction costs can be estimated fairly accurately in terms of value, and as a result, their calculation is significantly simplified.

In order to maximize accurate measurements of transaction costs, it is necessary to apply a differentiated approach to assess each type of cost. The calculation of hidden costs is the most difficult step in determining the total amount of transaction costs. It is impossible to measure these type of costs with a direct calculation. Typically, hidden costs include lost profits, excessive expenses, and losses due to incomplete information or a high degree of uncertainty, loss of time, and so forth. Table 1 presents tools and techniques to reduce transaction costs, depending on their type (Baev, 2013; Makaluk, 2014; Malakhov, 2010, Demsetz, 1967).

2. Development of methodology for assessing transaction costs

In this article, the methodology of transaction assessment elaborates upon the basis of classification of transaction costs. As we calculate all types of transaction costs, we receive a value, expressed in monetary terms. Transaction costs of the enterprise can be divided into costs that have a positive impact on the company, and costs that adversely affect the company's profit. Accordingly, the first group of costs increases profit, and the second minimizes profit, and causes other negative consequences. In order to maximize the effectiveness of the company, it is important to strive to minimize "negative," and optimize "positive" costs.

In each of these two groups, transaction costs are ranked on a 5-point scale. Positive transactions are ranked from 1 to 5, depending on the degree of impact on income (where 1 is the least impact, and 5 is the greatest impact), and negative transactions are ranked from -1 to -5 (where -1 is the least impact, -5 is the greatest impact). The ranking is done by expert assessment, followed by an assessment of consistency between expert opinions.

Each company, depending on the specifics of their activity, can independently group "positive" and "negative" costs, and can also assign a ranking value for each cost.

A matrix of costs is created in a Cartesian coordinate system in order to visually compare the specific type of transaction costs to the overall cost structure of the company. The X-axis shows the amount of cost in terms of money, the Y-axis shows the ranking values of positive and negative costs.

Tab. 1: Techniques and tools to reduce transaction costs.

Types of transaction costs	Techniques for reducing transaction costs	Tools to reduce transaction costs
Analytical costs	Marketer training, create an optimal organizational structure for marketing services, methodical regulation of marketing services	Training centers, consulting agencies
Administrative costs of management decision-making	Optimization of organizational structure of the company, and optimization of the business processes of company services interacting between each other	Consulting agencies
Negotiating costs	Training of personal, improvement of the corporate culture	Training centers
The costs to ensure transaction security	A teamwork of marketing and security services while selecting partners	Organize bids
Measuring and monitoring costs	Quantification and standardization, hedging, government support, venture capital financing	Outsourcing companies, insurance companies, investment funds, government authorities
Specification and property rights	Formation of legislative process, clear rights and obligations of the participants in contractual	Legal services, courts, arbitration, association of

protection costs	relationships, legal protection of property rights. Legal department staff training.	property rights protection, notary offices
The costs of monitoring contract compliance	Security service organization	Management of the company
Opportunistic behavior costs	Prevention of failure through the formation of business rules. Creating special control structures.	Chamber of Industry and Commerce, anti-monopoly service, collections agencies, and legal agencies
Politicization costs	Suppression of information, smoothing of wage differences, the introduction of “objective” criteria for promotion (for example: age, or education level).	Management of the company

The algorithm to reduce costs for the company might look like this:

- Collecting and processing information of costs and their value;
- Separation of “positive” and “negative” costs;
- Creating recommendations to reduce “negative” costs, and optimize “positive” costs.

Thus, the matrix of costs allows us to visually estimate the values, and the correlation to all the transaction costs of the enterprise. It also allows us to indicate the direction and limits of their distribution.

The process of assessing and calculating the value of transaction costs for the enterprise is rather laborious, and requires effective cooperation of all departments. That is why it is advisable to allocate a separate line under management of the company as “management of transaction costs”.

3. Transaction cost information management system implementation

In order to provide maximum efficiency and transactional cost optimization of the company, it is advisable to implement an information management system of production transaction costs.

Its main task is to provide complete and accurate information about the transaction costs incurred in all departments of the enterprise; its main functions are: administrative (coordination of agreement processes); planning (setting goals, planning the size of the agreements); controlling (account and analysis of transaction costs); informational (collection and processing the information for transaction management); consulting (consulting support of the agreement process).

Typically, an enterprise has the following activities:

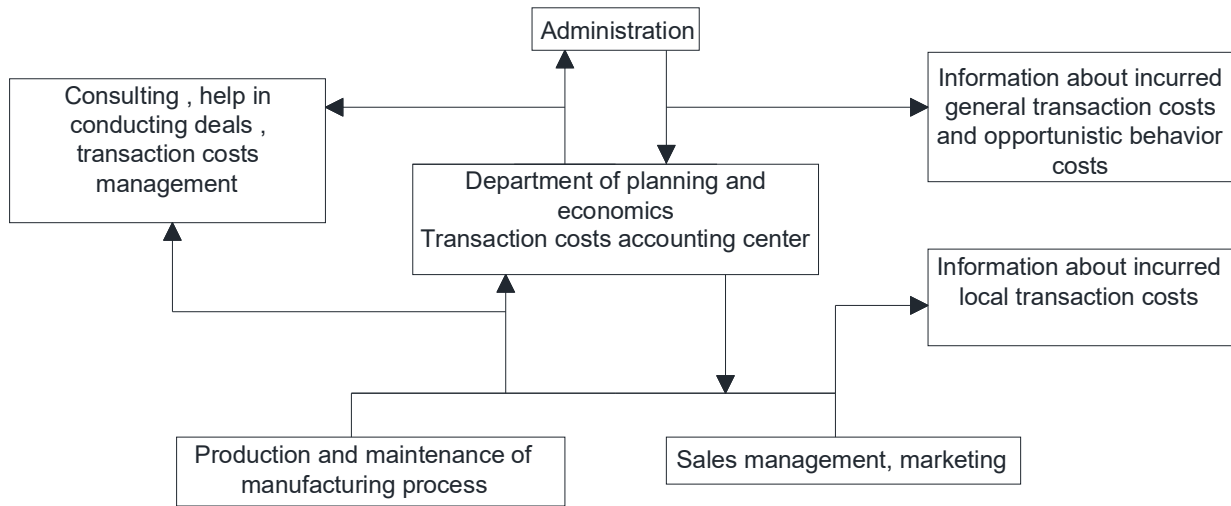
- administration (management, accounting, planning, economic and legal departments);
- manufacturing process (preparation and storage of materials, supply chain, production);
- provision of services to internal divisions; sales production (marketing and sales departments).

The structure of the Transaction costs accounting center is proposed in accordance with the activities above. (Figure 2). Collection of information regarding the transaction costs that are

incurred should be performed at all stages of economic activity. For this purpose, an accounting of transaction costs accounting should be performed during the sale, manufacturing, and administration stages.

The information collected regarding the transaction costs incurred is transferred from relevant departments into the transaction costs accounting center for further analysis. Collection of information regarding the transaction costs incurred during the main stages of economic activity will allow us to analyze them both for the company in general, and for its separate segments.

Fig. 2: Structure of transaction costs accounting system



The functions for managing information about transaction costs across the company's departments can be distributed as follows (Table. 2).

Tab. 2: The function of the company's departments regarding the transaction costs accounting

Department	Function
Administration	
Management	Coordination of the process of creating agreements for the company, distribution of authority for creating agreements
Accounting department	General transaction cost accounting
Planning and economic department	Function of Transaction costs accounting center
	Transaction costs analysis
	Collection and processing of information regarding transaction costs
	Consulting support of the process of transaction
Legal department	Analysis and improvement of contract content
	Consulting support of process of contract creation
Production and Manufacturing activity	

Production	Accounting of transaction costs, related to measurement of product quality
Purchasing (supply) department	Accounting of transaction costs related to agreements with resource and materials providers
Sale management	
Marketing department	Accounting of transaction costs related to department activity
Sale department	Accounting of transaction costs which appear as a result of agreements with buyers.

As a result of analyzing transaction cost assessment techniques, and the peculiarities of their use in different Russian and foreign companies, it is important to distinguish the main reasons that transaction costs occur, and to identify ways and means to reduce them.

The largest share of general costs belongs to control and contract compliance costs and opportunistic behavior costs.

Conclusions

The recommended measures to optimize transaction costs include following: Optimization of the organizational structure of the marketing services; Clear regulation of the activity of the company's departments; Further management training. Continuous employee training; Implementation of transaction costs accounting system in all departments of the company.

The number of transactions, and accordingly, transaction costs of a company, may increase depending on the complexity of the manufacturing process. Therefore, the company's management objective is to reduce the number of transactions by eliminating unnecessary, unproductive costs.

The main difference between the proposed transaction analysis and traditional methods of assessing the performance of companies, is that the latter studies only transformation sector growth indicators, while intra-institutional complexities cause implicit transaction cost growth (Kosmin, 2014). The proposed method allows assessment of the effectiveness of structural reforms, based on joint analyses of transactional sector values, and transformational sector values.

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