

## OUTSOURCING IN CONTIDIONS OF SMEs – THE POTENTIAL FOR COST SAVINGS

Potkány M., Stasiak-Betlejewska R., Kováč R., Gejdoš M.\*

**Abstract:** Many enterprises face the issue with increasing own overhead cost and take an effort to reduce it, what is a base for using of outsourcing principles. Outsourcing is primarily used as a strategic tool for corporate resources optimizing. Enterprises decide to remove some supporting activities to external units, which can be provided with ensuring a higher quality and lower costs. These decisions result in increasing attention to a core business orientation and costs reduction. The main purpose of the paper is the cost savings quantification, what is supported by the research results focused on the use and the possibilities of outsourcing in Slovakian SMEs. There was proposed a general model for an economic efficiency evaluation for potential use of the outsourcing through determination of expected costs savings as a result of the research study.

**Key words:** outsourcing, cost savings, enterprise, SME, allocation base

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### Introduction

At present due to the influence of globalization and increasing competition many enterprises are forced to perform a variety of supporting activities, which are necessary for business. The implementation of subsidiary services and auxiliary activities has increased the amount of overhead costs. The reaction is just an effort to reduce overhead costs. The application of the outsourcing principles is one of the ways of the overhead costs' reduction. Therefore, enterprises use some forms of outsourcing to increase their competitiveness. It is therefore a new approach to the rationalization of business processes (Aronsson and Koskela, 2009; Illés et al., 2015).

Outsourcing has become a common strategic tool in many companies over the world in recent years. Today, outsourcing is used primarily as a tool of strategic business management, namely as a tool for optimizing the corporate resources consumption focusing on core strategic business objectives. Prior task of outsourcing is to provide and increase the quality level of activities and cost savings (Iqbal and Dad, 2013; Di Gregorio et al., 2009). This also confirms the results of many studies (Jyoti et al., 2015; Brzeziński et al., 2015; Lopez, 2014; Grabara and Kot, 2010; Tabor, 2011). Effort to reduce the costs in a company leads to a responsibility settlement for their implementation to an external provider.

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\* **Marek Potkány**, assoc. prof., PhD, Technical University in Zvolen, Slovakia; **Renata Stasiak-Betlejewska**, PhD. Ing., Czestochowa University of Technology; **Robert Kováč**, University of Pardubice, Czech Republic; **Miloš Gejdoš**, PhD, Technical University in Zvolen, Slovakia

✉Corresponding author: potkany@tuzvo.sk;

✉renatastasiak@wp.pl; robertdatabase@gmail.com; gejdos@tuzvo.sk

Besides the potential of cost savings, it is also orientated towards the core business, risk transfer, quality improvement and the expert know-how acquisition with support processes management (Sroka, 2014; Stachová and Stacho, 2013; Kot and Brzeziński, 2015). The most common risk in terms of company experience appears to be an area of additional and hidden cost of outsourcing.

### **Theoretical Background**

Outsourcing as a concept comes from the American economic life and represents a combination of the words - *outside*, *resource* (*s*) and *using* to the one artificial word. According to Hirschheim et al. (2006) the concept of outsourcing (as an agreement with the external entity to provide goods or services) has been here for centuries. Outsourcing is not a new concept and we can find its origin in sub-contracting of production activities. Jyoti et al. (2015) state that to sustain in the current environment and for success the organizations consider outsourcing as an important strategy of the organization, which helps in improving performance by reducing costs, creating new products and services, enhancing quality and productivity (Nayak et al., 2007). Outsourcing of business activities has become the tool which tries to concentrate on the core business and delegate certain functions to other institutions that have the resources and facilities to carry out these functions more effectively (Aronsson and Koskela, 2009; Kot, 2015). Outsourcing allows companies to divide activities on those, which are considered to be the main “core” and “non-core” activities and allows them to enter ancillary activities to external partners to make them more efficient, more cost-effective. In Szlezak’s (2014) opinion, in practice it is not possible to outsource all activities. It is ideal to determine a plan based on company business philosophy, i.e. to focus on a core of company interest and not to outsource this base. Outsourcing has become over the time a complex object of business, and therefore can be described from different perspectives. In theory it is possible to find a number of definitions from various authors. In view of the complex characteristics the definition from Hunter (2008) can be used, who said that outsourcing is understood as a transfer of internal business activities or group of related activities to an external producer or service provider, who is able to offer the required service on the agreed date and at the agreed price. Today, outsourcing is used primarily as a tool of strategic business management, namely as a tool for optimizing the corporate resources consumption focusing on core strategic business objectives. Kubasakova et al. (2014) write that outsourcing is a general trend of the new century. Providing and increasing the quality level of activities and cost savings to pay the attention to core business and mainly in SMEs has become the priority task of outsourcing. There are enterprises which are the core power of each economy and by their flexible approach they create a potential for outsourcing application. Outsourcing can be applied in various SMEs mainly because of cost savings what can be mentioned as highly preferred reason of its application. This also confirms results of many studies in the production enterprises (Kumari et al., 2015; Arbore and Ordanini, 2006;

Mohiudinn, 2015), but also in service organizations (Edvardsson and Teitsdóttir, 2015). However, as the most frequent branches of outsourcing principles application IS/IT (Mishra and Mahanty, 2014) and banking system (Sellar, 2015) can be mentioned. Interesting is a fact, that the practice misses methodology to calculate the potential assets in cost cutting when the companies decide whether to implement outsourcing (Potkány, 2015). Nevertheless, we stated that outsourcing is a tool of effective costs' reduction and elimination of risks from traditional concepts.

### **Outsourcing Costs**

When using outsourcing it is widely expected that costs of this activity would be reduced in comparison to the costs incurred in the use of the company internal capacity. If we want to compare the outsourcing effectiveness to our own process implementation, it is necessary to consider all costs that are related. Therefore it is very important to identify and quantify the outsourcing costs. Dvořáček and Tyll (2010) divided outsourcing cost into these groups:

- Production costs in functional area. These are the costs invoiced by providers for delivering the services.
- The transaction costs. These cover cost of creating a contract, check of its implementation, communication and coordination between a client and a provider; and costs of the other expert and consulting services.
- Hidden costs. This area coincides with transaction costs and is related to additional costs incurred for example to manage transition phase of implementation, costs of redundancies and costs of relationship termination.
- Groups of transaction and hidden cost are important. In the year 2012 the OSF Global Services company presented the results of their own study "The Real Cost of Outsourcing".

The additional costs of outsourcing, according to the study are categorized into several groups (Figure 1):

- The cost of selecting a vendor – with any outsourced service, the expense of selecting a service provider can vary from 1-10% in addition to annual cost of the deal. These costs include documenting requirements, collecting, analysing and valuating process, travel expenses, opportunity cost of work, and others.
- The cost of transition – this stage takes from three months up to a year. It is expected to spend additional 2-3% of this cost. It includes communication cost, outplacement and retention bonuses, legal contract fees and technical cost for new interfaces.
- The hidden cost of transition – this category includes 3-5% of the cost of layoffs, language and cultural differences can cost extra 3-27%.
- The cost of rump-up (ensuring quality of processes) with the help of software solutions cost 1-10%.

- The cost of managing a contract – this category is also additional cost. There is significant amount of work in invoicing, in auditing and in ensuring cost (6-10%).

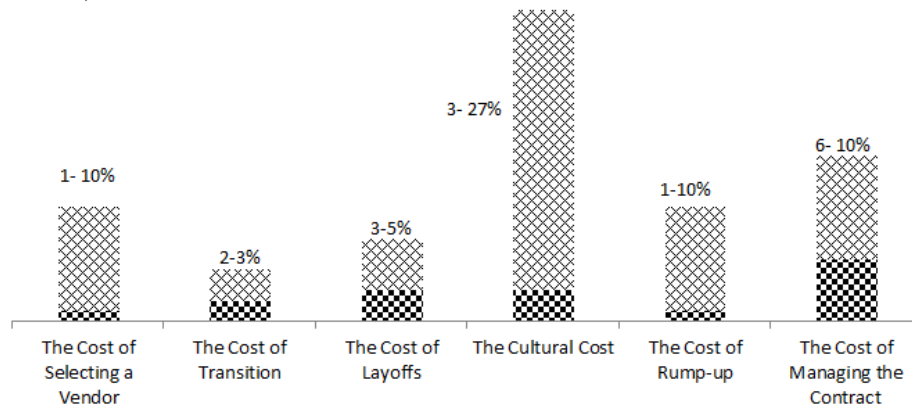


Figure 1. Additional cost of outsourcing

A precise identification of all groups of the mentioned costs is quite difficult and requires an expert estimation or a practical experience with the outsourcing using.

### Research Methodology

In the years 2010-2015 a baseline survey on the possibilities of outsourcing in SMEs in Slovakia was carried out at the Technical University in Zvolen. The research survey includes a combination of a questionnaire and personal interviews that allow identifying basic areas of outsourcing in selected SMEs in Slovakia. The research aim was to map the current situation in areas utilizing outsourcing and to find out potential opportunities, interest and barriers of practical utilization of the outsourcing in SMEs company practice.

SMEs are an important part of national economy in most countries. A clear definition of term small and medium-size does not exist. Approaches to the definition of SMEs vary from author to author. Úradníček and Zimková (2009) wrote that SMEs division depends on the size of the national economy and on the branches of the national economy they belong to. This paper uses the EU recommendation 2003/361. There are approximately 23 million of SMEs in the European Union that offer approximately 75 million work places and represent 99.8% of all enterprises. Within Slovakia, SMEs represent about 99.1% of all registered enterprises. SMEs show flexibility in using progressive technologies and they are the driving force for the economy development in job creation and main initiators of the living standards growth in each country. According to the recent data of the Agency for the Small and Medium Enterprise Development, in 2014 there were 195,727 SMEs registered in Slovakia (Potkány, 2015).

The basic set of the research was represented by SMEs located in Slovakia. Due to the large size of the basic set it was not possible to include all the small and medium enterprises in this research, and it was also the reason for using sampling through survey data. In the aim of establishing the basic set of the research sample, a deliberate choice based on the criteria defined by the directive EK No 2003/361/EC was done. For the purpose of collecting useful data for the research, a random sampling of 250 small and medium size manufacturing enterprises was selected from various areas of the national economy of the Slovak Republic. The empirical research was specifically targeted to find the current level of outsourcing use. Determination of the scope of the sample set resulted from the following relation (Sheer, 2007):

$$n = \frac{z_{\alpha/2}^2 \cdot p(1-p)}{\Delta_p^2} \quad (1)$$

- $n$  is scope of sample set,  $z_{\alpha/2}$  are values of standard random quantity from (reliability specified at the level of 95%, i.e. that the value  $\alpha = 0.05$  corresponds to  $z = 1.96$ ),  $\Delta p$  is required exactness, error of estimation (determined at 5.65%) and  $p$  is ratio (relative frequency) quality sign in the basic set (50%).

For the valuation of statistical reliance of individual questions correlation analysis was used. Correlation means the linear dependence between random variables. Statistical dependence is the correlation coefficient in the case of linear dependence between the variables degree of tightness. This coefficient takes its values in interval (-1,1). Pearson correlation coefficient ( $r$ ) can be determined by *variables*  $x$  ( $y$ ) and  $s_x$ ,  $s_y$  standard deviations of variables  $x$  ( $y$ ) Rimarčík (2007):

$$r = \frac{\overline{xy} - \bar{x}\bar{y}}{s_x s_y} \quad (2)$$

According to Cohen correlation is trivial under 0.1, from 0.1 to 0.3 correlation is small, from 0.3 to 0.5 correlation is medium and over 0.5 correlations is large. Correlation from 0.7 to 0.9 is very large and then is almost perfect.

### Results of Research Concerning Outsourcing in SMEs in Slovakia

The actual scope of the sample set was at the level of 170 businesses due to the fact that 68% of the questionnaires were returned. Despite the reduced scope of the sample set the real scope of the sample set may be considered representative. Due to the facts presented by Matejková (2012), it is possible to state that with respect to the research of institutions at the national level, the minimum scope of the sample set includes 150 companies.

All of the questions in questionnaire were compared to each other through correlation analysis of pairs and then the correlation dependence was expressed. Table 1 presents the correlation matrix of the individual questions with expression of its levels of dependence.

The paper includes only partial results of the mentioned survey. It is mainly the area of outsourcing and the potential assessment of its economic efficiency. Economic efficiency” should be understood as expected costs savings which can be further transformed into relative ratio indicators of Return on Costs (ROC) or also into growth of Economic Value Added.

**Table 1. Correlation matrix of the individual questions**

	A*	B*	C*	D*	E*	F*	G*
A*	-	0.09	0.33	0.21	0.37	0.12	0.16
B*	trivial	-	0.28	0.39	0.13	0.16	0.14
C*	medium	small	-	0.77	- 0.58	0.04	0.42
D*	small	medium	very large	-	- 0.60	0.19	0.56
E*	medium	small	large	large	-	0.07	0.53
F*	small	small	trivial	small	trivial	-	0.08
G*	small	small	medium	large	large	trivial	-

\*Questions were aimed at identification: the region (A) and sizes of the company (B), the use of any form of outsourcing (C), reasons for use/non-use of outsourcing (D/E), potential assessment of economic efficiency of outsourcing use (F) and interest in the use of outsourcing in the future (G).

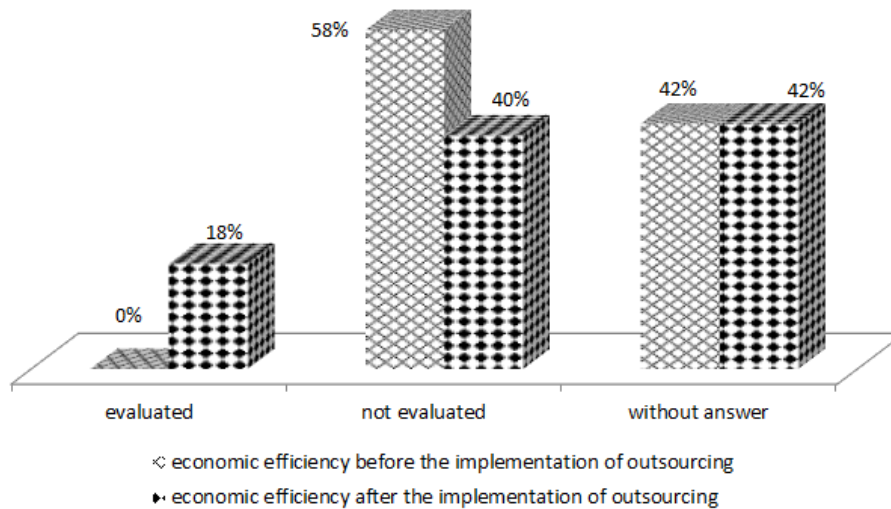
Based on the conducted research, it was found that 53.5% of questioned enterprises do not use any form of outsourcing for managing the company processes. Outsourcing is therefore used mainly in SMEs (Table 2). Outsourcing is used mainly in the fields of administration activities, care and maintenance of IS /IT and buildings (facility management), economy and low consulting, educational and training activities, marketing and transport services.

**Table 2. Structure of SMEs in presented research paper**

SMEs	Micro	Small	Medium-size
	18 (10.59 %)	49 (28.82 %)	103 (60.59 %)
<b>Using of Outsourcing</b>	yes 3 (16.67%) no 15 (83.33%)	yes 22 (44.89%) no 27 (55.11%)	yes 54 (52.43%) no 49 (47.57%)

The preliminary assessment of economic efficiency of outsourcing use in the practice is unknown. Enterprises often decide to use outsourcing based on positive references, recommendations and analysis submitted by the service provider. The anticipated cost savings is not qualified in enterprises. This problem is solved intuitively, and quantifying the cost savings occurs in the stage of evaluating the effects arising from outsourcing, after the accounting period, it means after the part of the contract. Indicators, as the level of economic variables such as income, labour productivity and turnover, are the criteria for comparing given indicators before and after the implementation of outsourcing. Evaluation of the effect

of the use of outsourcing after the implementation was evaluated by approximately 18% of the analysed businesses (Figure 2).



**Figure 2. Evaluation of economic efficiency**

### **Proposal of the Model for the Economic Efficiency Evaluation of the Outsourcing use, its Limitation and Verification**

Our aim was to propose a model for the assessment of the potential economic efficiency of the outsourcing use, which would be applicable easily and rapidly without the need of spending significant funds on its implementation. The proposed methodology consists of several steps:

- Identification of business processes (activities, operations) for outsourcing,
- Analysis of business costs,
- Determination of critical costs of outsourcing,
- Quantification of potential cost savings.

This methodology requires understanding of the issue of cost allocation over for suitable allocation bases as well as Activity Based Costing methodology of calculation. This issue is addressed in several studies (Novák and Popesko, 2014; Nemeč et al., 2015; Potkány, 2015). It is relatively easy to apply this suggestion with the help of analytical tools for example in Microsoft Excel. We present our proposal methodology - General model of the economic efficiency evaluation of the outsourcing use, in a simplified schematic form (Figure 3).

This general model was successfully verified in 2015 under conditions of small business enterprise (outsourcing of accounting and marketing) and also under the conditions of medium production enterprise from the section of engineering industry (outsourcing of personnel administration and wages agenda). In both enterprises, we have used the given methodology for the comparison of predetermined costs saving quantification against the real situation. Results

declared that the utilization of outsourcing could cause cost saving effect and also the effect of quality growth in the given outsourced activities. In the case of business enterprise the saving of about 3,000 € per year with the effect of profit growth and also in further growth of Return on Costs of about 1.8% were reached. These results exceeded the expected savings assessed by our methodology. In the case of production enterprise savings of 3.58 € per one employee and per one month were reached, what is more than 10,000 € per year in spite of higher volume of hidden cost of outsourcing compared with the expected levels. As the positive event, the effect of orientation on core business which caused a decrease in the production defects and failures can be mentioned.

Just now, the above mentioned methodology is implemented under the conditions of other enterprises. It is a few service companies as well as companies in the sector of woodworking industry. From our own practical experience we can state that limits for using the presented model are specified by the following requirements:

- Precise evidence of detailed structure items of overheads costs,
- Selection of suitable types of allocation bases,
- Expert estimation of additional cost of outsourcing.

Correct use of these requirements can provide an efficient way in cost cutting and in improvement of a company's performance. This issue is discussed in more details in other literary (Vetráková et al., 2013; Potkány, 2015).

### **Summary**

Outsourcing of the business processes has become one of the main tool of the business performance increasing and in many cases there it is also the initiator of the strategic changes. One of the most anticipated effects of the outsourcing use is the cost savings. Based on our research results, it can be stated, that theory and the practice lack of the available general methodology of the economic calculations for potential cost savings evaluation. Companies solve this problem intuitively and the quantification of cost savings occurs only in the stage of evaluating effects arising from outsourcing after a conclusion of the accounting period. This paper presents a general model for the evaluation of economic efficiency for potential use of outsourcing through the outsourcing cost structure identifying. The estimation of the costs is a crucial stage in deciding whether, how, and what to outsource.

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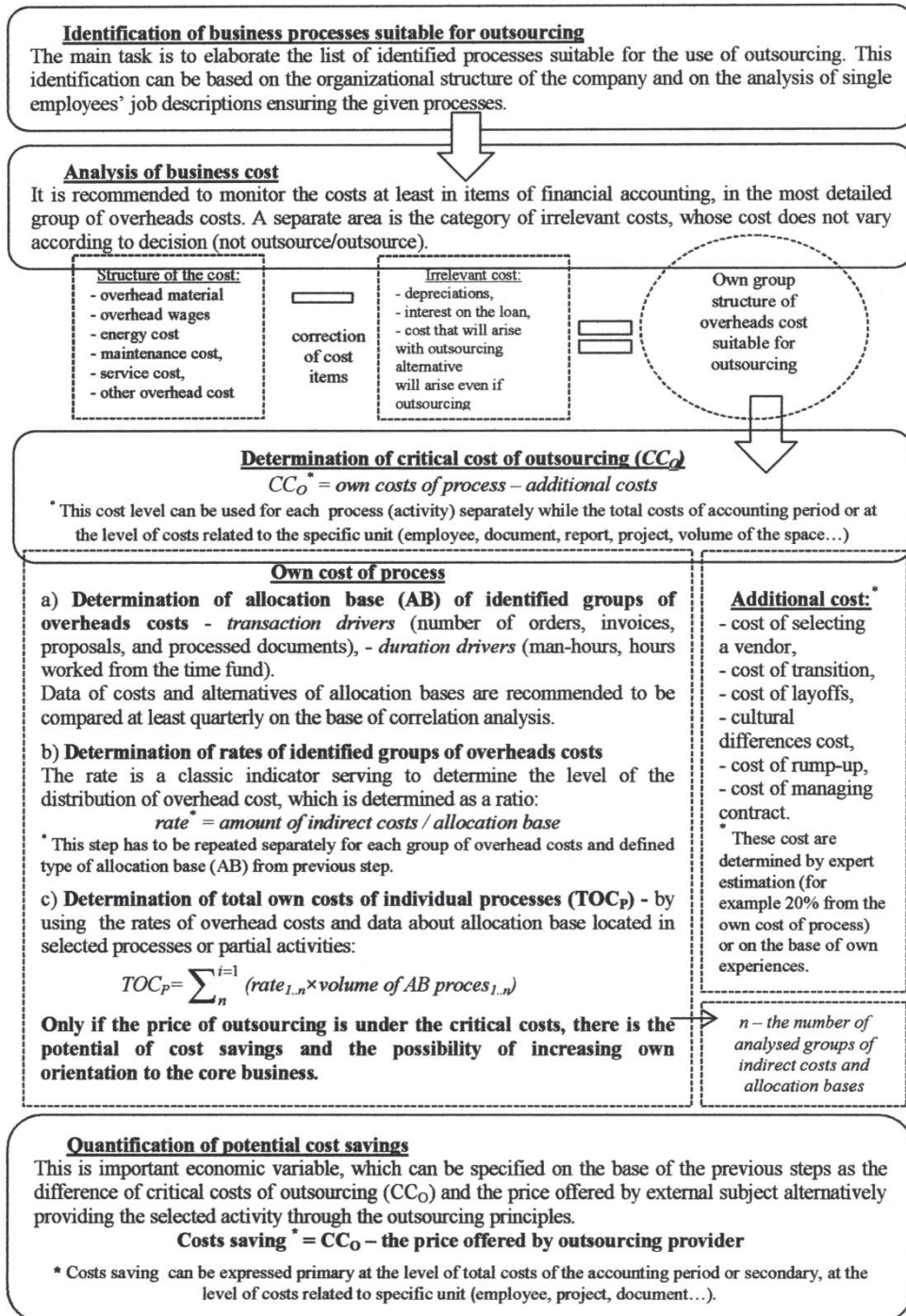


Figure 3. General model of proposal methodology

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### OUTSOURCING W WARUNKACH MAŁYCH I ŚREDNICH PRZEDSIĘBIORSTW – POTENCJAŁ W ZAKRESIE OSZCZĘDNOŚCI KOSZTOWEJ

**Streszczenie:** Wiele przedsiębiorstw napotyka na problemy dotyczące wzrastających kosztów własnych i podejmuje wysiłek na rzecz ich redukcji, co stanowi podstawę do zastosowania zasad outsourcingu w przedsiębiorstwie. Outsourcing jest wykorzystywany przede wszystkim, jako strategiczne narzędzie optymalizacji zasobów korporacyjnych. Przedsiębiorstwa decydują się na wyłączenie niektórych obszarów pomocniczych do prowadzenia przez jednostki zewnętrzne, które mogą być świadczone przy zapewnieniu wysokiej jakości niskich kosztach. Decyzje te skutkują zwiększoną uwagą na podstawowej orientacji biznesowej oraz redukcją kosztów. Głównym celem pracy jest identyfikacja oszczędności kosztowych, co poparto wynikami badań ukierunkowanych na wykorzystanie i możliwości outsourcingu w słowackim sektorze MŚP. Zaproponowano ogólny model oceny efektywności ekonomicznej dla potencjalnego wykorzystania outsourcingu poprzez wyznaczenie spodziewanych oszczędności kosztowych, jako rezultat pracy badawczej.

**Słowa kluczowe:** outsourcing, oszczędności kosztowe, przedsiębiorstwo, SME, podstawa alokacji

### 外包中小企業的條件 – 為成本節約的潛力

**摘要：**許多企業面臨著提高自己的開銷，也是為了減少它，什麼是使用原則外包基地的問題。外包主要是用來作為優化企業資源的戰略工具。企業決定刪除一些支持活動到外部單元，其中可設置有與確保更高的質量，降低成本。這些決定導致越來越多的關注核心業務定位和成本的降低。本文的主要目的是節約成本量化，什麼是其研究成果主要集中在使用和服務外包在斯洛伐克中小企業的可能性支持。我建議有是通過預期成本節約的測定，研究性學習的結果可能利用外包的經濟效益評價的一般模型。

**關鍵詞：**外包，節約成本，企業，中小企業，調撥基地