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EXAMINATION OF FACTORS LEADING EXPANSION OF OUTSOURCING AND ITS ARRANGEMENTS IN SERVICE SECTOR

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Abstract. *Purpose* – the purpose of this article is to identify factors that influence the spread of outsourcing practice in service sectors, classified by WTO and investigate links between factors which lead service sector firms to adopt outsourcing and outsourcing relationship type.

Research methodology – the authors conducted a comprehensive review of the literature in the service sector and outsourcing practices researches to achieve a thorough understanding of the issues involved and identifying the problematic aspects and crucial factors groups affecting the outsourcing using in the service sector. The structured interview with general managers in each service sector group was held in order to explore the factors determining the outsourcing in separate service sector companies and revealed what relationship are used to maintain outsourcing arrangements. Collected data were analysed using the statistical method.

Findings – the range of factors that contribute to the expansion of outsourcing in the service sector is distinctive and significantly narrower than those identified in the scientific literature. The significance of factors that lead service sector firms to adopt outsourcing varies according to what kind of activities – core or non-core are outsourced. Outsourcing relationships are based on short- and long-term contracts preferred domestic outsourcing.

Research limitations – although the main factors affecting the expansion of outsourcing in the service sector were revealed, the compatibility of expert opinions was weak. Therefore, more in-depth research could be carried out in each of the service sector groups and its sub-domains.

Practical implications – the practical implication should explain how the results of the research could be used in practice.

Originality/Value – while most studies of factors motivating outsourcing were based on manufacturing sector or separate service sector companies' groups (hotels, hospitals, etc.), this is empirical study focusing at all service sector groups distinguished by WTO.

Keywords: outsourcing, service companies, services, service management, business management, business.

JEL Classification: M11, M16, M19, L14, L22, L24, L26, L80.

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Introduction

Scientists have studied various aspects related to outsourcing since the middle of the 20th century, but discussion on this topic has only grown, and the number of opinions and points of view has only increased. Outsourcing defines the handing-over of services or operational functions, which traditionally were performed within a company, to an outside supplier of services, who is controlled via contacts and partnership agreements (Mariani, Falotico, & Zavanelli, 2014). As Tamošiūnas (2017) states, outsourcing is applied by a company for an internal organisational restructuring. Analyzing scientific literature (Ikediashi & Aigbavboa, 2018; Krstić & Kahrović, 2015; Jain & Natarjan, 2011; Hatonen & Erikson, 2009; Ghodeswar & Vaidyanath, 2008; Kedia & Lahiri, 2007; Rebernik & Bradač, 2006; Brown & Wilson, 2005; Franceschini, Galetto, Pignatelli, & Varetto, 2003; et al.) it can be seen, that the uncertainty of the definition of outsourcing and the volume of scientific discussions on this topic are determined by the development of outsourcing and its expansion, what results the change of content of outsourcing. The growth of the services and its importance, as well as the impact of outsourcing on this process, is becoming more and more frequent as a topic for scientific studies. In the analysis *Trade in Services and Employment* prepared by UNCTAD in 2018 it is said that the services sector has

emerged as the largest segment of most national economies, contributing a growing share to GDP, trade and employment, and becoming a dominant driving force of the world economy. The sector has become the largest provider of existing jobs as manufacturing value chains are outsourced to services suppliers and as the final consumer demand for services increases with the rising income levels. According to Henneberg, Gruber, & Naudé (2013), the service sector dominates in all developed countries. This tendency holds not only in business to consumer relations, but also in business to business relations. The growth of the importance of the service sector is seen even in countries, traditionally, oriented towards production. Although production and supply of physical products increases, its importance diminishes or becomes integrated and inseparable from services.

Moreover, as much as the growth of the usage of service outsourcing in companies is indisputable, it is most often based on the usage of service outsourcing in production companies, while at the same time, the analysis of the service outsourcing in the service sector remains limited. Scientists Amiti and Wei (2005), Vivek, Richey, and Dalela (2009), Gerbl, McIvor, and Humphrey (2009), Tate, Ellram, and Bals (2009) and others, emphasise the lack of information and studies related to outsourcing in the service sector. Statistical databases do not provide consistent and constructive data on service outsourcing in the service sector, either. Only separate studies of outsourcing are done in different groups of companies in the service sector, which does not allow to generally evaluate the tendencies of service outsourcing in the service sector. Scientists tend to use qualitative research methods, with pre-made answer/question questionnaires for studying what encourages the expansion of outsourcing and what relationships are built with the supplier of the outsourcing service. Such methods are chosen due to the lack of statistical data and the specificity of services. Thus, a problem emerges – is it possible to determine the factors directly relating to outsourcing and different forms of cooperation in companies that provide different services, by using such methods.

The purpose of the article is to identify factors that influence the spread of outsourcing practice in service groups, classified by WTO and investigate links between factors which lead service sector firms to adopt outsourcing and outsourcing relationship type. In order to fill the gaps in the knowledge of service outsourcing, this article draws on previous research on this topic and presents the semi-structured interview with general managers in each service sector group, in order to explore the factors determining the outsourcing in separate service sector companies and reveal what relationships are used to maintain outsourcing arrangements.

1. Previous studies

Although the influence of service sector on economics is growing, research on service outsourcing is scarce. It was noted that a significant part of scientific works is dedicated to the analysis of outsourcing in manufacturing rather than service sector (Žitkienė & Dudė, 2018). Through analysis of the results and methods of empirical studies, conducted by various scientists, the domination of fragmentation is evident, thus illustrating the results of small-scale research in different services. Scientists (Zhang, Emily, & Hailin, 2018; Espino-Rodríguez & Ramírez-Fierro, 2017; Suweero, Moungnoi & Charoenggam, 2017; Gbadegesin & Babatunde, 2015; Borodako, Berbeka, & Rudnicki, 2015; Ikediashi & Okwuashi, 2014; Yildiz & Damire, 2014; Sani, Dezdar, & Ainin, 2013; Baytok, Soybali, & Zorlu, 2013; Lamminmaki, 2011; Assaf, Hassanain, Al-Hammad, & Al-Nehmi, 2011; Jain & Natarjan, 2011; Smuts, Kotzé, Van der Merwe, & Loock, 2010; Gewalt & Dibbern, 2009; Lam & Han, 2005; et al.) study the factors stimulating service outsourcing separate groups of companies of the service sector. The authors mentioned above have found the theoretical factors determining the outsourcing or indicated groups of such factors. The specified factors were systematised in structured forms. The forms then were handed to the experts, such as heads of service sector companies, or personnel with the authorisation to make certain decisions. Utilising the Likert scale, the experts evaluated the importance of the factors presented to them. The data they received was also analysed via statistical methods. However, the research was based on structured questionnaires with pre-indrawn factors. Since the questionnaires contain theoretical factors, a possibility remains that factors significant to the expansion of outsourcing in the service sector remain outside the bounds of such questionnaires.

It is worth noting that a large scale, versatile research, which analysed factors related to outsourcing, was conducted via a project – ORN (Offshoring research network) in 2004–2012. Offshoring Research Network (ORN) is an international network of scientists and practices, which studies the outsourcing phenomena. Information about the usage of outsourcing was collected every year, on the company level. The purpose of the research was a yearly study during which partners in their respective countries gathered data by handing out structured questionnaires in the companies' e-platform. According to the publication based on the results of a scientific study (Lewin & Peeters, 2006; Manning et al., 2008; Massini, Perm-Ajchariyawong, & Lewin, 2010; Hutzschenreuter, Lewin & Dresel, 2011; Roza, Van de Bosch, & Volberda, 2011; Lewin & Volberda, 2011; Caniato, Elia, Luzzini, Piscitello, & Ronchi, 2015), it is evident that during this research the data of production and service companies were not separated. The results were analysed commonly for both sectors. In addition to that, the amount of statistical data, which would help to evaluate the phenomena of outsourcing in different countries is also scarce. Eurostat provides data of two periods of research of outsourcing (in 2001–2006 and 2009–2011). However, the data of the two publications are hardly comparable. The research of scientific works revealed that strategic and economic factors mostly determine the expansion of outsourcing in the service sector. Since reasonably clear groups of determining factors have been established, but the number of

components remained diverse, due to episodic research results, conducted in several service sector groups according to WTO, further empirical research is needed in companies of the service sector.

2. Methodology

The purpose of the empirical study – to determine the factors leading to the expansion of outsourcing in all WTO classified service groups and to reveal what inter-organisational relations are formed by employing service outsourcing. The method of the research – a semi-structured interview, during which ranking of factors by their importance is used. 6 experts from each of the 11 WTO service sector groups, were questioned, 66 experts in total, in leading roles within the service sector companies. The form of the interview is semi-structured, as in – there are pre-determined open-ended questions in a particular order. The questions of the interview were meant to reveal for what activities – core, non-core or both – do the respondents use outsourcing in their practice and to determine the factors leading up to choosing the outsourcing as an option, and their significance. A five-point Likert scale, ranging from 5 to 1 (from 5=“extremely important” to 1 = “almost not important”), measured the importance of factors accorded by the respondents. The research also aimed to identify the form of co-operation with suppliers of outsourcing and their geographical location. The interviews were held in June to December of 2017, Lithuania. The data collected were processed by using statistical methods and SPSS program.

3. Findings and analysis

The experts that participated in the study take up leading positions in companies of various size. The size of the companies is categorised by the number of their employees: 1–9, 10–19, 20–49, 50–249, 250 and more. The majority of the participating companies (39%) were those that employ 50–249 workers. Companies that employ 1–9 workers made up 19% of responders. Companies with 10–19 workers – 13% of responders, others with 20–49 made up 16%, and those that hold 250 and more employees – 13%.

The research revealed that service outsourcing in service sector companies is used for the core as well as for non-core activities (see Figure 1). However, in almost all WTO sectors of services, service outsourcing used more frequently for non-core activities. Only in the sector of business services, it was established that service outsourcing is used more frequently for core activities. The transportation sector employs outsourcing equally for core and non-core activities.

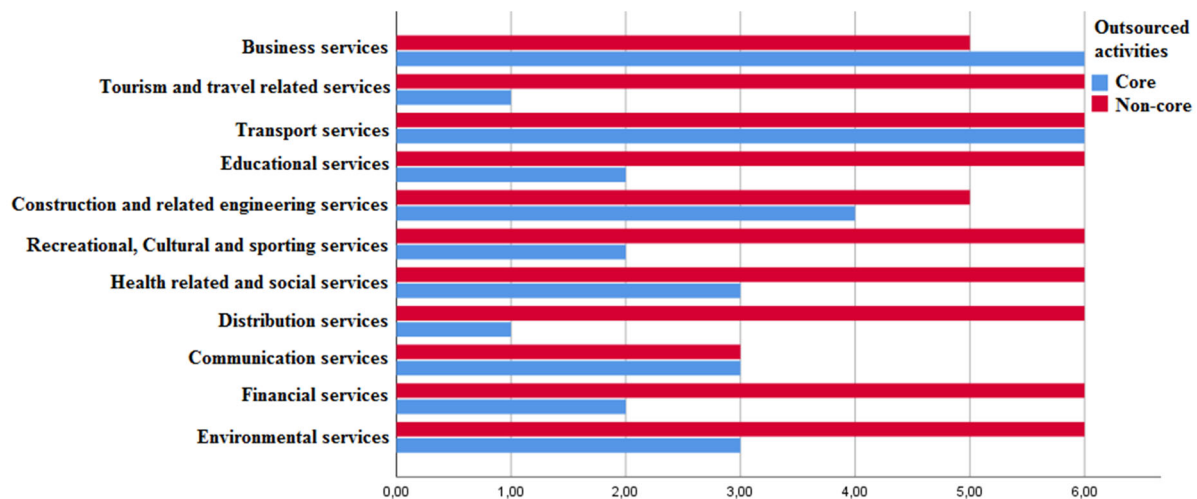


Figure 1. Usage of outsourcing according to the activities of the company (source: created by authors)

During the interview, the respondents were asked to name, freely, the factors that determined the usage of service outsourcing both for core and non-core activities. The results revealed that amidst the service sector companies a far narrower spectre of factors determining the usage of outsourcing dominates, unlike the ones given in scientific studies. According to the factors named by the respondents 18 factors that lead to usage of service outsourcing in service sector companies were determined. (see Table 1). In addition to that, the significance of the factors determining the usage of outsourcing was distributed unevenly in response to which kind of activities was the service outsourcing used for – core or non-core (see Table 2). The frequency of the identification of the factors revealed that service outsourcing is more often used for non-core activities. Usage of outsourcing for non-core activities due to economic reasons, as in, aim to reduce overall costs was named 58 times out of 63.

The factors named by the respondents were grouped in the manner given in scientific literature (see Table 1). It was found that the factors fall into 5 groups: economic, strategic, managerial, technological and qualitative factors. However, two factors were named that do not fit any of the groups mentioned above. They were assigned to a new group – “other”. These factors are “positive experience of other companies” and “service location”. The majority of the factors determining the expansion of the usage of outsourcing, 8 out of 18, are in the strategic factor group.

Table 1. Groups of factors determining the usage of outsourcing (source: created by authors)

Factors	Outsourcing factors groups
Reduction of overall costs	Economic
Change of fixed costs to variable	
Lack of capital	
Flexibility	Strategic
Specialisation of a service provider	
Concentration	
Absence of constant demand (seasonality or project volatility)	
Lack of staff with specific qualifications	
Control unplanned situations	
Rapid adaptation to changing needs	
Risk sharing	
Reducing administrative burdens	Management
Time-saving	
Need for specific knowledge/skills	Technologic
Need for a specific technique	
Quality Improvement	Quality
Positive experience of others	Other
Service location	

During the research, the number of different factors needed to influence the decision of whether to outsource a core or non-core activity was measured. The majority of determining factors influencing the use of outsourcing were mentioned by the respondents of the distribution service sector companies for non-core activities. Respondents mentioned 10 different factors. Generally, throughout all the service sectors, the most extensive variety of factors influencing the choice to outsource is seen in the context of non-core activities. The largest variety for the implementation of core activities via outsourcing was mentioned in the sectors of business, construction and construction-related engineering service sectors.

Table 2. Mean of factors determining the outsourcing (source: created by authors)

Factors	Outsourced activity	
	Core	Non-core
Reduction of overall costs	1.21	4.16
Change of fixed costs to variable	0.11	0.16
Lack of capital	0.05	0.00
Flexibility	0.14	0.57
Specialization of service provider	0.48	2.65
Concentration	0.06	1.68
Absence of constant demand (seasonality or project volatility)	1.56	1.40
Lack of staff with certain qualifications	0.59	0.51
Control unplanned situations	0.35	0.16
Rapid adaptation to changing needs	0.24	0.06
Risk sharing	0.00	0.08
Reducing administrative burdens	0.59	0.89
Time saving	0.32	0.43
Need for specific knowledge / skills	0.21	1.27
Need for specific technique	0.19	0.76
Quality Improvement	0.25	0.16
Positive experience of others	0.00	0.13
Service location	0.00	0.27

Table 3. Comparison of the importance of factors in different service sectors (source: created by authors)

	Service sector by WTO														KW p-value									
	Environ-mental ser-vices		Financial services		Communi-cation ser-vices		Distribution services		Health re-lated and social ser-vices		Recrea-tional, cul-tural and sporting ser-vices		Construc-tion and re-lated engi-neering ser-vices			Educa-tional services		Transport services		Tourism and travel re-lated ser-vices		Business services		
	Mean	SN	Mean	SN	Mean	SN	Mean	SN	Mean	SN	Mean	SN	Mean	SN		Mean	SN	Mean	SN	Mean	SN	Mean	SN	Mean
Outsourced activities	1.67	2.58	0.50	1.22	2.67	2.52	0.83	2.04	0.83	2.04	0.83	2.04	1.17	1.47	0.00	0.00	1.83	2.48	0.83	2.04	2.83	2.32	0.323	
Core	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.22	0.00	0.00	0.67	1.63	0.567	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.22	0.00	0.00	0.00	0.00	0.485	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	1.63	0.567
	0.83	2.04	0.50	1.22	1.33	2.31	0.00	0.00	0.00	0.00	1.67	2.58	0.83	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.22	0.524
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.485
	1.50	2.35	0.00	0.00	3.33	2.89	0.83	2.04	0.50	1.22	0.00	0.00	3.33	2.58	0.00	0.00	4.00	2.00	0.00	0.00	4.50	0.84	0.000	
	0.00	0.00	0.00	0.00	1.67	2.89	0.00	0.00	1.17	2.04	0.00	0.00	0.00	0.00	0.00	0.00	1.83	2.14	0.00	0.00	2.33	2.58	0.017	
	0.00	0.00	0.83	2.04	0.00	0.00	0.00	0.00	0.83	2.04	0.00	0.00	0.00	0.00	0.00	0.00	1.17	1.60	0.00	0.00	0.83	2.04	0.124	
	0.00	0.00	0.00	0.00	1.67	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	2.04	0.00	0.00	0.83	2.04	0.330	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.000	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	2.04	1.50	2.35	0.00	0.00	0.00	0.00	0.00	0.83	2.04	1.50	2.35	0.329
	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	1.83	2.04	0.00	0.00	0.50	0.84	0.00	0.00	0.00	0.00	0.002	
	0.67	1.63	0.00	0.00	1.00	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.10	0.022	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.82	0.00	0.00	0.83	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.83	2.04	0.653	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.22	0.67	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.246	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.000	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.000	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.000	

Table 3. Comparison of the importance of factors in different service sectors (continue)

	Service sector by WTO														KW p-value										
	Environmental services		Financial services		Communication services		Distribution services		Health related and social services		Recreational, cultural and sporting services		Construction and related engineering services			Educational services		Transport services		Tourism and travel related services		Business services			
	Mean	SN	Mean	SN	Mean	SN	Mean	SN	Mean	SN	Mean	SN	Mean	SN		Mean	SN	Mean	SN	Mean	SN	Mean	SN		
Outsourced activities																									
Non core																									
Reduction of overall costs	4.50	1.22	4.50	0.84	5.00	0.00	3.17	2.48	4.67	0.52	3.83	2.04	3.50	1.97	5.00	0.00	4.33	0.82	4.33	0.52	3.33	1.86	0.347		
Change of fixed costs to variable	0.00	0.00	0.83	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.83	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.567		
Lack of capital	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.000		
Flexibility	0.00	0.00	1.00	1.55	0.00	0.00	0.50	1.22	0.83	2.04	0.67	1.63	0.00	0.00	0.00	0.00	1.33	2.07	0.83	2.04	0.83	2.04	0.761		
Specialization of service provider	2.17	2.40	2.00	2.28	4.00	1.00	3.83	1.94	0.83	2.04	3.17	2.48	3.50	1.97	2.17	2.40	3.50	1.76	3.33	2.58	1.33	2.07	0.276		
Concentration	1.17	1.83	3.33	2.58	5.00	0.00	1.67	2.58	1.67	2.58	0.83	2.04	0.83	2.04	0.67	1.63	1.67	2.58	1.67	2.58	1.67	2.58	0.250		
Absence of constant demand (seasonality or project volatility)	1.33	2.16	2.50	2.07	0.00	0.00	1.17	1.83	1.50	2.35	1.33	2.16	2.50	2.07	0.00	0.00	1.50	2.35	2.00	2.28	0.83	2.04	0.480		
Lack of staff with certain qualifications	0.00	0.00	0.83	2.04	0.00	0.00	1.50	2.35	0.00	0.00	0.00	0.00	0.50	1.22	1.67	2.58	0.00	0.00	0.00	0.00	0.83	2.04	0.388		
Control unplanned situations	0.00	0.00	0.00	0.00	0.00	0.00	0.83	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	2.04	0.567		
Rapid adaptation to changing needs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	1.63	0.485		
Risk sharing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	2.04	0.00	0.00	0.00	0.00	0.485		
Reducing administrative burdens	0.00	0.00	1.50	2.35	1.67	2.89	2.17	2.40	0.00	0.00	1.50	2.35	0.00	0.00	0.00	0.00	2.17	2.48	1.17	2.04	0.00	0.00	0.109		
Time saving	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.22	1.67	2.58	1.50	2.35	0.00	0.00	0.83	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.242		
Need for specific knowledge / skills	0.00	0.00	1.50	2.35	0.00	0.00	0.83	2.04	0.83	2.04	0.83	2.04	2.33	2.58	2.67	2.16	3.00	2.37	1.33	2.16	0.00	0.00	0.129		
Need for specific technique	0.00	0.00	1.33	2.07	0.00	0.00	0.83	2.04	1.67	2.58	1.17	1.83	0.00	0.00	0.00	0.00	0.83	2.04	0.83	2.04	1.33	2.16	0.628		
Quality Improvement	0.00	0.00	0.00	0.00	0.00	0.00	0.83	2.04	0.00	0.00	0.83	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.567		
Positive experience of others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.22	0.00	0.00	0.567		
Service location	0.00	0.00	0.00	0.00	0.00	0.00	1.33	2.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	2.35	0.00	0.00	0.00	0.00	0.057		

The most significant factors (see Table 2) determining the outsourcing of core activities are strategic factors – the absence of constant demand (seasonality or volatility of projects) (mean 1.56), second in line by significance is one of the economic factors – the reduction of overall costs (mean 1.21); other factors were less significant. Meanwhile, a factor of the economic group is the primary influencer to choose to outsource for non-core activity. It is the reduction of overall costs (mean 4.16). Other significant factors are strategic factors: specialisation of service supplier (mean 2.65), concentration towards primary activities (mean 1.68), the absence of constant demand (seasonality or volatility of projects) – mean 1.40.

Kruskal-Wallis non-parametric test, which is applied to evaluate an abnormally spread numerical variable between 3 and more independent groups, was used to analyse the importance of each of the factors determining the use of outsourcing and how it relates to the group of the service sector (see Table 3, next page). The data of the study showed that the importance of these factors is directly related to the service sector group when choosing to outsource core activities: absence of constant need (seasonality and volatility of projects) ($p = 0.017$), lack of staff with specific qualification ($p = 0.0017$), time-saving ($p = 0.02$), need for specific knowledge or skills ($p = 0.022$) and there were no statistically significant differences found in the companies observed in relation to outsourcing a non-core activity.

In pursuit of revealing what influences the significance of the factors, it became evident that the size of the company has an impact on the importance of certain groups of factors determining the use of outsourcing. Economic ($p = 0.021$), technologic ($p = 0.002$) and qualitative ($p = 0.029$) factors were dependent on the size of the company when choosing to outsource core activities to a supplier of outsourcing. Whereas, transferring non-core activities, the importance of technologic factors ($p = 0.029$) was dependent on the size of the company.

In order to determine the existence of a meaningful relationship between the type of activity being outsourced to a supplier of service outsourcing and the importance of the factors that influence this choice, a two independent sample non-parametric test of Mann-Whitney U was used. This test is a t-test analogue, but it does not require normality of a dependent variable; thus, it applies better to the data of this research. Medians of factors that determined the usage of outsourcing were compared between two types of activities outsourced to a supplier of service – core and non-core. Moreover, if the value of p is than 0.05, it can be stated that statistically, significant relation exists. It is seen that economic, strategic, managerial and other factors were more important outsourcing a non-core activity in comparison to core activities ($p < 0.05$).

Table 4. Comparison of the importance of groups of factors determining the outsourcing between companies of different sizes (source: created by authors)

			Company size (amount of employees)									KW p-value	
			1–9		10–19		20–49		50–249		250 and more		
			Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean		SN
Outsourced activity	Core	Economic	0.28	0.65	1.08	0.64	0.37	0.87	0.21	0.59	0.45	0.67	0.021
		Strategic	0.31	0.50	0.73	0.61	0.59	0.46	0.14	0.40	0.41	0.61	0.092
		Management	0.00	0.00	0.56	0.90	0.35	0.82	0.00	0.00	0.18	0.52	0.108
		Technologic	0.00	0.00	1.69	1.51	0.55	0.96	0.81	1.13	0.12	0.36	0.002
		Quality	0.00	0.00	0.00	0.00	0.70	1.49	1.13	2.10	0.00	0.00	0.029
		Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.000
	Non-core	Economic	1.39	0.49	1.21	0.75	1.37	0.67	1.83	0.62	1.44	0.42	0.336
		Strategic	0.69	0.41	0.63	0.47	1.13	0.39	0.81	0.47	1.00	0.79	0.140
		Management	0.58	1.06	0.50	0.96	1.80	1.80	1.00	1.10	1.08	1.38	0.331
		Technologic	0.46	0.89	0.00	0.00	0.25	0.79	2.00	1.91	0.70	1.18	0.029
		Quality	0.00	0.00	0.00	0.00	0.50	1.58	0.00	0.00	0.20	1.00	0.654
		Other	0.33	0.81	0.25	0.71	0.20	0.63	0.00	0.00	0.18	0.63	0.805

The analysis of each of the factors determining the use of outsourcing (see Table 5) shows that reduction of overall costs ($p = 0.00$), flexibility ($p = 0.030$), aim to concentrate attention to the essential spheres of activity ($p = 0,00$), specialization of service provider in a particular field ($p = 0.00$), need for specific knowledge or skills ($p = 0,001$), need for specified technique ($p = 0.024$) and service location ($p = 0.043$) were more critical with regard to non-core activities in comparison with core activities.

Table 5. Comparison of the averages of factors between two types of activities outsourced (source: created by authors)

Factors	Outsourced activity				Mann-Whitney U p-value
	Core	Non-core	Core	Non-core	
	Mean	SD	Mean	SD	
Reduction of overall costs	1.21	1.99	4.16	1.44	0.000
Change of fixed costs to variable	0.11	0.63	0.16	0.88	0.974
Lack of capital	0.05	0.38	0.00	0.00	0.317
Flexibility	0.14	0.80	0.57	1.44	0.030
Specialization of service provider	0.48	1.39	2.65	2.23	0.000
Concentration	0.06	0.50	1.68	2.33	0.000
Absence of constant demand (seasonality or project volatility)	1.56	2.25	1.40	1.99	0.699
Lack of staff with certain qualifications	0.59	1.51	0.51	1.47	0.633
Control unplanned situations	0.35	1.19	0.16	0.88	0.156
Rapid adaptation to changing needs	0.24	1.07	0.06	0.50	0.300
Risk sharing	0.00	0.00	0.08	0.63	0.317
Reducing administrative burdens	0.59	1.56	0.89	1.81	0.259
Time saving	0.32	0.98	0.43	1.35	0.886
Need for specific knowledge / skills	0.21	0.74	1.27	2.06	0.001
Need for specific technique	0.19	0.91	0.76	1.70	0.024
Quality Improvement	0.25	1.00	0.16	0.88	0.428
Positive experience of others	0.00	0.00	0.13	0.73	0.156
Service location	0.00	0.00	0.27	1.05	0.043

By examining the compatibility of opinions of experts Kendall’s coefficient of concordance was calculated (see Table 6), and it has been concluded, that the coefficient of concordance that was received is not equal to zero neither regarding core, nor non-core activities ($W = 0.0128$ and $W = 0.0353$). Thus it can be said, that the evaluations of the experts are similar, but even though the coefficient of concordance is not equal to zero, its value is not close to one (with regard to core activities $W = 0.130$ and non-core $W = 0.373$), so the strength of the compatibility of the opinions of the experts is not strong.

Table 6. Results of the calculation of the Kendall coefficient of concordance (source: created by authors)

Outsourced activity	N	Kendall’s W^a	Chi-Square	df	Asymp. Sig.
Core	63	0.130	139.492	17	0.000
Non-core	63	0.373	399.486	17	0.000

Since it has been established that the compatibility of the opinions of the experts of the entire service structure is weak, the compatibility of the opinions of the experts was tested in different groups of services (see Table 7). Level of significance $\alpha = 0.05$, and it was established that the coefficient of concordance in all groups of services in the service sector is not equal to zero, neither regarding core, nor non-core activities. Thus the opinions of the experts can be considered overlapping, but after this test, it has been found, that in almost all of the service sectors the coefficient of concordance is somewhat removed from a one, which shows weak compatibility of the opinions of the experts. However, it became clear that during the separation into groups of services, the opinions of experts on the outsourcing of non-core activities overlapped ($W = 0.921$).

Respondents indicated that they cooperate with suppliers of outsourcing services only by short-term and long-term contracts. No other forms of the formation of the business network were mentioned (establishing subsidiary companies, executing mergers, etc.). Such results can be related to the fact that the study was conducted in Lithuanian companies, among which transformations of organisational structures are not standard.

During the research, it was revealed that 95% of service outsourcing suppliers with whom companies of the service sector co-operate are based in Lithuania. Other 5% with whom companies of the service sector co-operate are based abroad. The main reason for co-operation with foreign suppliers of service outsourcing, as stated by the respondents, was that the company provides its services abroad, thus, inevitably, is forced to co-operate with foreign companies.

Table 7. Results of the calculation of Kendall's coefficient of concordance in different groups of the service sector (source: created by authors)

Service sector by WTO	Outsourced activities									
	Core					Non-core				
	N	Kendall's W ^a	Chi-Square	df	Asymp. Sig.	N	Kendall's W ^a	Chi-Square	df	Asymp. Sig.
Environmental services	6	0.259	26.371	17	0.068	6	0.650	66.305	17	0.000
Financial services	6	0.153	15.615	17	0.551	6	0.469	47.834	17	0.000
Communication services	3	0.446	22.749	17	0.158	3	0.921	46.982	17	0.000
Distribution services	6	0.167	17.000	17	0.454	6	0.347	35.439	17	0.005
Health related and social services	6	0.188	19.163	17	0.319	6	0.448	45.716	17	0.000
Recreational, cultural and sporting services	6	0.204	20.764	17	0.237	6	0.325	33.184	17	0.011
Construction and related engineering services	6	0.392	39.977	17	0.001	6	0.635	64.799	17	0.000
Educational services	6	0.333	34.000	17	0.008	6	0.615	62.767	17	0.000
Transport services	6	0.447	45.603	17	0.000	6	0.463	47.202	17	0.000
Tourism and travel related services	6	0.167	17.000	17	0.454	6	0.487	49.709	17	0.000
Business services	6	0.432	44.015	17	0.000	6	0.330	33.688	17	0.009

Conclusions and further recommendations

Based on the results of the empirical study, 18 different factors determining the expansion of outsourcing among service sector companies are: reduction of overall costs, change of fixed costs to variable, lack of capital, flexibility, specialization of service provider, concentration, absence of constant demand (seasonality or project volatility), lack of staff with specific qualifications, control unplanned situations, rapid adaptation to changing needs, risk sharing, reducing administrative burdens, time saving, need for specific knowledge or skills, need for specific technique, quality improvement, positive experience of others, service location, for example, when services are provided in foreign countries and additional services are needed in those countries, but not continuously. In the service sector, the significance of the factors determining the use of outsourcing differs regarding which activities – core or non-core are being outsourced. The most significant factor determining the outsourcing of core activities is attributed to strategic factors – the absence of constant need (seasonality or volatility of projects). Meanwhile, most often, an economic factor determines the use of outsourcing for non-core activities – the reduction of overall costs. It has also been established, that the size of the company influences the significance of the group of factors.

The data of the research showed that the companies of the service sector are not inclined to outsource their operations to organisations located far from them. 95% of respondents co-operate with local market companies, and the rest 5% co-operate with companies located abroad only because of the specifics of their services. Experts indicated that companies co-operate with suppliers of outsourcing services only by short-term and long-term contracts. Outsourcing is used more often for the execution of non-core activities.

In the Lithuanian service sector, a far narrower spectre of factors determining the expansion of the use of outsourcing dominates, unlike the scientific literature would state. In the service sector, the significance of the factors differs in accordance to what type of activities – core or non-core – are to be outsourced. The study includes the entire service sector and is based on a unique methodology, not applied anywhere before. Since such studies have not been conducted before, the results of the research suppose many study directions. Having determined weak compatibility of opinions of experts during the research, based on the methodology provided, more in-depth research could be conducted in every group of services and their subgroups. Based on the data received, it can be stated that further research, which would involve experts from each group of services, is required in order to ascertain the situation in the sectors which are comprised of different types of services (i.e. business service group is comprised of vocational services, IT and IT related services, scientific research and development services, real estate operation services, renting service, without a service staff, and other business services) and evaluate within the group. The empirical research was conducted on the level of a single country; thus the applicability of its results on an international level could also be a subject of further research.

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