

# Outsourcing and communication technologies in the sphere of enterprises accounting-information support

Yaroslav D. Krupka<sup>1</sup>  
Volodymyr  
V. Muravskiy<sup>2</sup>

Ternopil National  
Economic University, Ukraine  
Faculty of Finance and Accounting

ORCID: <sup>1</sup> 0000-0002-9926-5513  
<sup>2</sup> 0000-0002-6423-9059

---

**Abstract:** The delegation of accounting functions becomes current for reducing intensive work; minimizing administrative costs; preventing fines and financial sanctions for violating accounting and tax laws in a post-industrial economy. The prospects of accounting with the involvement of outsourcing institutions in the enterprise are given in the article. The advantages and disadvantages of outsourcing are substantiated. The delegation variants of accounting works with providing information security of the enterprise are considered. The organizational differences in the outsourcing services provision by person entrepreneurs and entities are determined. The role of communication technologies in the dialogue between the enterprise and the outsourcer is outlined. The possibilities of organizing accounting work outside the enterprise, remote counseling with representatives of the outsourcer, fiscal services or other state controlling bodies with the use of communication technologies are researched for the real-time adjustments of certain actions for making decisions.

**Key words:** accounting, outsourcing, communication technologies, accounting and information support

---

## 1. Introduction

Permanent changes in the normative provision of accounting and reporting, the solution of legal and taxation issues lead to complication of economic activities of enterprises. Financial sanctions for violation of tax and other legislation have caused the occurrence of significant unproductive losses in business. The reason of business losses is the lack of qualifications and competence of persons engaged in accounting, the formation of financial, tax and other reporting. In small enterprises, the problem lies in not loading the accepted accounting workers by processing of information. Employees must also be competent in any matters related to the organization of accounting and taxation to solve legal, managerial and other issues.

Correspondence to:  
Yaroslav D. Krupka  
Ternopil National Economic  
University  
Faculty of Finance and Accounting  
Department of Accounting and Taxation  
11 Lvivska St.  
40023 Ternopil, Ukraine  
Tel.: +380 506 718 514  
E-mail: KrslDm@gmail.com

Such work can be performed only by a person who owns certain competencies, material and information resources. Executors of accounting and tax functions are outsourcing companies acting as separate legal entities and private entrepreneurs who perform the accounting and reporting work on a contractual basis. Delegation of certain accounting functions or works to these executors will improve information provision, competently solving the most complex issues in the management and taxation of an enterprise.

Ukrainian legislation provides for various forms of accounting organization in enterprises. In accordance with the Law of Ukraine “On Accounting and Financial Reporting in Ukraine” and, in particular, the amendments to this Law dated 5 October 2017, the company independently selects the forms of accounting organization, including its maintenance principles (Law of Ukraine). Among them:

- introduction of an accountant position to a company’s staff or creation of an accounting service headed by a chief accountant;
- using the services of a specialist registered as an entrepreneur without creating a legal entity;
- accounting on a contractual basis by centralized accounting or other business entity;
- accounting by a self-employed person engaged in accounting and/ or auditing activities;
- independent accounting and reporting directly by the company’s owner or manager.

This form of accounting organization cannot be used in public enterprises or institutions. Various options for the organization of accounting work in Ukraine and in the world practice can be used. Among them is the transfer of accounting and reporting functions to other legal entities or individuals. More and more outsourcing forms of accounting and reporting are applied in Ukraine.

The main aim is to research the advantages, disadvantages of outsourcing accounting and the prospects of information technology used in delegating accounting functions. The tasks of the paper are:

- generalization of history and prospects for outsourcing accounting;
- identifying the advantages and disadvantages of outsourcing accounting functions;
- systematization of organizational options for outsourcing in accounting and financial reporting;
- researching of the role of information technologies in the communication process of outsourcing.

At the basis of scientific research is the hypothesis of transferring accounting functions to third-party institutions (outsourcers) and remote work of accounting specialists with information and communication technologies, which makes it possible to abandon organizational structure—accounting office.

During the scientific research, along with the use of traditional methods, an epistemological method will be used to clarify and deepen the content of concepts and categories in the field of theory and methodology of outsourcing in accounting and financial reporting. In the course of doing research for experts, a thematic-oriented (specialized) methodology will be applied using the foundations of normative and positive accounting theory to study the structure of the theory of outsourcing accounting, its elements and the relationships between them; the methodology of outsourcing accounting functions, which consists in the definition

of three qualitative independent and interrelated methodological levels: subject-conceptual, economic-legal and logical, which provides methodological orientation to measures for the development of outsourcing accounting with using information and communication technologies.

## 2. Outsourcing in the accounting and financial reporting

Outsourcing is the partial transfer of the enterprises work or processes to outside contractors on the contract basis. Outsourcing is the assignment of one entity (customer) to another third-party organization or person to perform certain tasks (functions), business processes. There are various types of work and functions which enterprises can transfer to outsourcing services. Popular outsourcing (along with IT technologies) is outsourcing in the field of accounting and tax, finance and reporting.

The active development of the outsourcing market in the accounting and reporting field in the first place acquired a significant spread in Europe and the USA. At first, the use of outsourcing services was motivated by a decrease in administrative expenses for maintaining accounting specialists, whose functions were delegated to other performers. Over time, the active use of the outsourcing companies' services has become possible with the transfer of the most complex and time-consuming accounting functions.

In Europe, over 86% of small and medium-sized businesses use the services of outsourcing companies, in the USA their number exceeds 92%, and in Israel—96% now. The most common is the functions delegation for the calculation and accounting of wages, taxes and other government fees. Outsourcing services have also been increasingly developed in the countries of the Asia-Pacific region, where the main incentive argument is the high profitability of the outsourcing business (about 30%) with an annual market growth of 10–15% (Heywood, 2004, p. 24). In Ukraine, the initial stage of outsourcing development in the accounting, financial and tax reporting fields came in the mid-1990s, along with the active development of the audit services market (Alyeksyeyev, Patryn and Didukh, 2015, p. 36).

Ukrainian audit firms were the first to introduce the combination of audits with tax advice and assistance in organizing accounting in the enterprise into practice. At that time, the law prohibited accounting functions providing by audit firms and at the same time forming an official audit report on the compliance of financial statements indicators with the real state of affairs. Now accounting outsourcing services are increasingly provided not only by audit firms, but also by specialized consulting companies in the accounting and legal field—outsourcers.

The outsourcing process is characterized by the following features:

- the need to conclude a long-term (not less than a year) contract with a specialized outsourcing firm on the certain functions transfer;
- transfer to perform only certain functions that are not the main activity of the enterprise;
- fees for outsourcing services in accordance with the contract;
- periodic reporting to the customer, responsibility for the results of the work.

The latest amendments to the Law of Ukraine “On Accounting and Financial Reporting in Ukraine” stipulate that a specialized accounting (auditing) company conducts accounting and reporting for the company, then such reports are signed by the enterprise head, as well as by

the head of this company. The responsibility of an outsourcing firm should be determined by law and the contract for the provision of accounting services.

Experts identify the advantages and disadvantages of accounting and reporting by an outsourcing company (Table 1).

Table 1. The advantages and disadvantages of outsourcing in the field of accounting and reporting

Advantages	Disadvantages
1. Professionalism—the best organizational, methodological and technical work.	1. Threats to the confidentiality of information—insufficient guarantees in its non-disclosure.
2. Independence from the business scale—there is no need for recruitment and reduction of personnel, expenses for their studies, etc.	2. Inoperability of obtaining information through organizational and territorial remoteness.
3. Competence—more qualified human capacity, the relevant regulatory and information base.	3. Human factors—staffing of outsourcing companies, the impossibility of combining professions.
4. Responsibility—clearly defined by the terms of the contract with the outsourcing company.	4. Cost factors—the price of services, which includes overhead costs and profits of outsourcing companies.
5. Optimization of expenses—reduction of expenses, avoidance of sanctions for mistakes in accounting and taxation.	5. The threat of bankruptcy by outsourcing companies.

Source: Authors' own elaboration.

It should be noted that the professionalism of the outsourcing companies is more professional than the competence of the accountant of a small or medium-sized enterprise, which must provide all parts of the accounting work, have information about the latest changes in taxation and other areas of economic life. Outsourcing firms have a more complete and high-quality regulatory information base, technical tools and work experience. The most difficult and responsible areas of accounting and analytical work are assigned to them.

A team of researchers led by F. F. Butynets' has compiled a list of the advantages of accounting by an "external accountant": no need for financial reporting and monitoring regulatory changes; less need for qualified company personnel; financial responsibility of third parties for accounting errors; the possibility of obtaining qualified assistance from an outsourcing firm consultants (Butynets', Voynalovych and Tomashevs'ka, 2005, p. 97).

The advantage of outsourcing is the possibility of using the experience and professionalism acquired during the activity. The enterprises often spend significant resources to solve various problematic issues. An outsourcing accounting company usually has ready-made answers to solving such problems.

Among the disadvantages are the doubts of individual specialists regarding the reduction of an outsourcing company costs to processing information. G. P. Zhuravel', V. B. Klevets', V. M. Oliynychuk and P. Ya. Khomyn notice that the usefulness of accounting outsourcing is greatly exaggerated. An outsourcer recruits employees and performs settlement operations similar to an enterprise that have applied for outsourcing services. In addition, the outsource-

ing services cost is 15–25% of the profits, which casts doubt on the savings from the delegation of accounting functions (Zhuravel', Klevets', Oliynychuk and Khomyn, 2013, pp. 38–41).

There are certain threats to ensure the confidentiality of account information. Although the terms of non-disclosure are usually prescribed in an agreement with an outsourcer, in practice there are often cases of disclosing confidential information by an outsourcer. It is difficult to control the implementation of the functional responsibilities of outsourcers. Third parties access to accounting information can adversely affect the enterprises cyber security.

A combined approach is used to interact with its own accounting and control unit with an external consulting (outsourcing) company for solving the problem moments. The company's own accounting department processes information for management accounting purposes. A limited amount of information is transmitted to an outsourcer for organizing financial accounting and generating financial statements. The distribution of functions provides the necessary information security of the enterprise. In case of breach of confidentiality by an independent firm, only accounting data of financial accounting and financial reporting, which in most cases is public, can be subject to disclosure. The data of the management accounting, containing the commercial secret, do not go beyond the information boundaries of the enterprise.

Another organizational model of accounting functions delegation provides for the absolute transfer of financial accounting and management accounting to an independent firm, but only for individual geographically separated divisions or branches of an enterprise. Accounting and internal control of the parent company is maintained by the company's full-time employees. Subsidiaries are fully serviced by the outsourcer. This model is recommended to be implemented by transnational corporations, foreign branches of which, for accounting and control, must comply with the regulations of the country in which they operate. Delegation of accounting and control functions will ensure proper organization of accounting and control, as much as possible adapted to the national peculiarities of the countries legislation where the enterprise divisions are located.

### **3. Delegation of accounting functions to self-employed individuals**

The modern technical using provides great opportunities for remote exchange of accounting information. S. V. Ivakhnenkov notes that the use of information technologies such as the Internet, virtual accountant workplaces, and network lines of communication provides an opportunity for accountants and auditors to work outside the enterprise (Ivakhnenkov, 2003, p. 24). According to Annie Britton and Chris Waterston, the efficiency of accounting in the electronic network is growing in comparison with the unallocated accounting data processing due to the compatible use of the accounting system database (Britton and Waterston, 2010, p. 324).

Accounting and management specialists can perform functions outside the enterprise. Work at home is becoming more popular with the development of communication technology. 24-hour workday is provided with minimal expenses for the arrangement of a specialist's workplace. Accounting far away from the enterprise information field provides the ability to delegate accounting authority. 5% of employees aged 15 to 64 in the European Union often worked at home in 2017 (Eurostat, 2018a).

The highest rate of work at home is in the Netherlands (13.7%), Luxembourg (12.7%) and Finland (12.3%). Ukraine (0.2%) with Bulgaria and Romania occupy the lowest ratings for working remotely. The largest percentage of people working in Ukraine at home is employed in the development and testing of software.

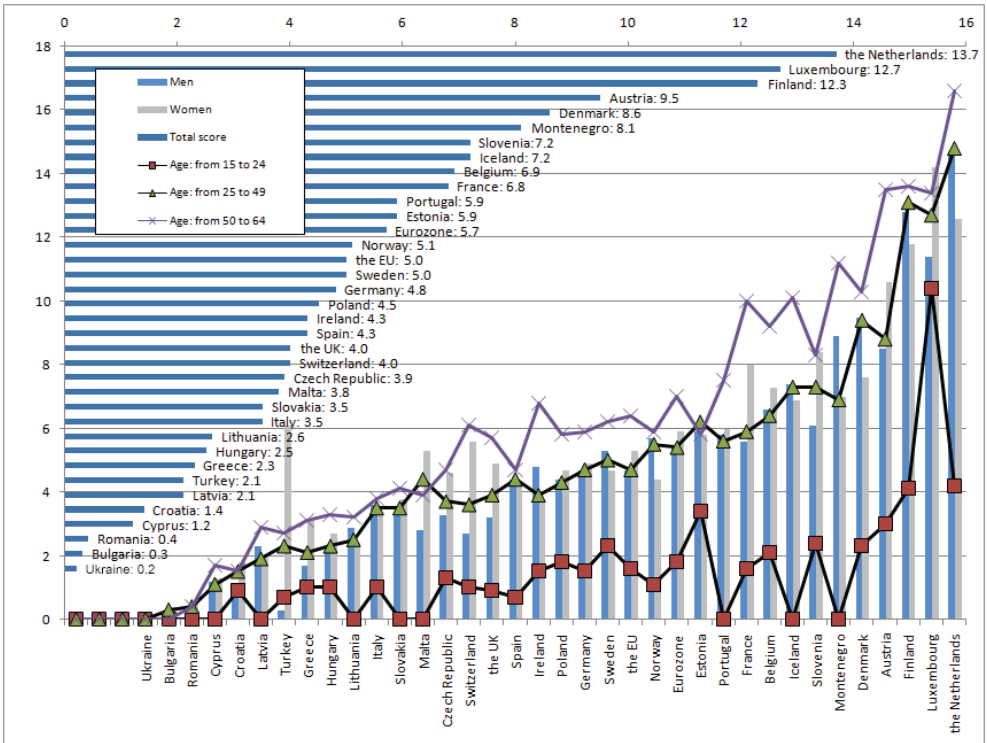


Figure 1. Percentage of people working at home by country, gender, and age group

Source: Eurostat, 2018a.

The percentage of people working at home has grown in the past years in general and according to gender and age groups. An interesting fact is the tendency to increase the percentage of women working at home in the EU countries (5.3% in 2017) compared to men (4.7%). The statistical data confirm a significant age-gradation of remotely working persons. Only 1.6% of people in the age group of 15 to 24 worked at home, among such workers at the age of 25–49—4.7%, and 50–64—6.4% (Eurostat, 2018a).

Work at home using the modern communication technology significantly changes the accountants' work. Registration of entrepreneurs with the fulfillment of the main functions at home on the basis of self-employment is most manifested in the field of accounting, law, software and computer services (Figure 2).

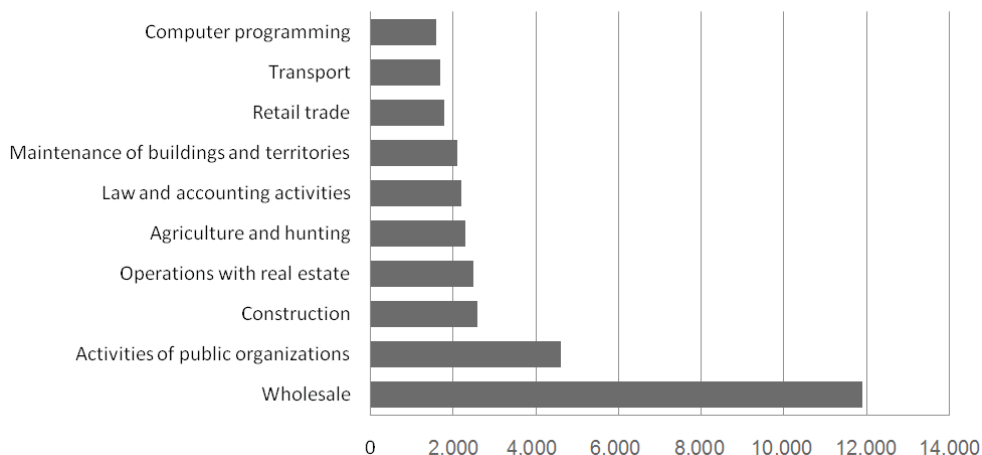


Figure 2. Registration of new legal entities in Ukraine by the type of activity in 2018

Source: Romanyuk, 2018.

Law and accounting activity among legal institutes is gaining popularity (sixth in terms of the number of newly created economic agents) (Romanyuk, 2018). The actual trend in the accounting services market is the delegation and computerization of accounting processes.

#### 4. The role of communication technologies for a dialogue between the enterprise and the outsourcer

The growing popularity of outsourcing is possible with the effective using of communication technologies. By introducing Internet communications technology into accounting and management processes from an outsourcer one can receive ready-to-use accounting information. Modern software products are developed not only for computer equipment, but also for communication devices in the form of add-on programmes. Accounting computer programmes integration with various communication technologies significantly increases the functionality of the software. The software market is developing in the direction of combining the functionality of personal computers with mobile telecommunications devices based on cloud databases and information services.

Delegation of accounting functions provides for the cloud virtual data processing services using. Cloud computing is a technology of distributed data processing in which information resources and functionality of computer equipment are provided to the user as an Internet service. Cloud technologies provide processing and storage of accounting information using software. The company minimizes the cost of technical devices, computer programmes and the maintenance of specialized personnel. Employees of the company receive and process the information in the Internet browser of a personal computer or mobile device.

More clearly, the tendency to increase the mobility of electronic processing accounting information is demonstrated by statistical data about enterprises of the European Union which give portable devices for performing functions to their employees (Eurostat, 2018b) (Table 2).

In 2017 in Europe, 70% of business entities gave mobile phones, tablets, laptops to their employees for performing functional duties. Direct access from the software to assistance databases and the Internet provides the outsourcer with help at any stage of the activity. Modern business communications are significantly transformed using the chat system. Chat provides assistance with the performance of accounting functions. The accounting and management specialist has the opportunity to consult in real time with an outsourcer, a fiscal, statistical service, or other government regulatory agencies regarding the appropriateness and correctness of management decisions.

Table 2. Enterprises giving portable devices for a mobile connection to the Internet to their employees for performing functions in the EU (in %)

Region/ Country	Years			
	2014	2015	2016	2017
the European Union	66	65	69	70
Belgium	70	66	80	72
Czech	65	57	77	79
Denmark	89	91	92	92
Germany	71	65	67	66
Ireland	67	68	71	76
Greece	41	46	48	52
Spain	53	61	76	80
France	69	76	72	75
Croatia	72	83	83	83
Italy	67	63	65	71
Hungary	64	62	66	70
the Netherlands	70	73	69	77
Austria	76	78	76	81
Poland	64	62	65	70
Portugal	67	70	71	71
Romania	39	41	43	50
Slovenia	71	76	78	81
Slovakia	80	77	74	82
Finland	89	92	94	92
Sweden	85	85	78	77

Source: Eurostat, 2018b.



Electronic chat technologies simplify simultaneous work of several accounting and management specialists with an outsourcer. The implementation of chat communication systems allows the staff to work outside the enterprise.

## 5. Conclusion

The accounting and control organization using information and communication technologies on the basis of delegation of accounting and control functions to an outsourcing firm or private individual ensures the completeness, reliability, efficiency of obtaining information for management, its adaptation to changes in the internal and external environment. At the same time, the implementation of an organizational model with full delegation of accounting and control functions needs further research in the direction of maintaining confidentiality, compliance with the rules of information security of the enterprise and consolidation of the final information. Outsourcing accounting by the outsourcing audit firm with a good reputation and experience in work brings greater benefits than self-sustaining accounting.

The developments of information and communication technologies automate most of the accounting processes in a future. Additional transferring accounting functions to third-party institutions (outsourcers) as well as remote work of accounting specialists using information and communication technologies make it possible to abandon the organizational structure—the accounting office.

## References

- Alyeksyeyev, I. V., Patryn, H. O., Didukh, O. V. = Алексеев, И. В., Патрин, Г. О., Дідух, О. В. (2015). *Аутсорсингова діяльність виробничих підприємств*. Львів: Видавництво Львівської політехніки.
- Britton, A., Waterston, Ch. (2010). *Financial accounting*. 5th ed. Harlow: Prentice Hall, Pearson Education.
- Butynets', F. F., Voynalovych, O. P., Tomashevs'ka, I. L. = Бутинець, Ф. Ф., Войналович, О. П., Томашевська, І. Л. (2005). *Організація бухгалтерського обліку: підруч.* 4th ed. Житомир: ПП «Рута».
- Eurostat. (2018a). *Employed persons working from home as a percentage of the total employment, by sex, age and professional status (%)* [online, accessed: 2019-03-15]. Luxembourg: Eurostat. Retrieved from: [http://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK\\_DS-052914\\_QID\\_6E0BB9BE\\_UID\\_-3F171EB0](http://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-052914_QID_6E0BB9BE_UID_-3F171EB0).
- Eurostat. (2018b). *Enterprises giving portable devices for a mobile connection to the Internet to their employees* [online, accessed: 2019-03-15]. Luxembourg: Eurostat. Retrieved from: <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tin00125>.
- Heuwood, J. V. = Хейвуд, Дж. В. (2004). *Аутсорсинг: в поисках конкурентных преимуществ = Outsourcing Dilemma: The Search for Competitiveness*. Москва: Вильямс, 2004.
- Ivakhnenkov, S. V = Ивахненко, С. В. (2003). *Інформаційні технології в організації бухгалтерського обліку та аудиту: нав. посіб.* Київ: Знання-Прес.
- Romanuk, O = Романюк, О. (2018). Не тільки торгівлею: яким бізнесом вигідно займатися в Україні. *Opendatabot service моніторингу реєстраційних даних* [online, accessed: 2019-09-08]. Retrieved from: <https://opendatabot.com/blog/199-new-business>.
- Verkhovna Rada Ukrainy = Верховна рада України. (1999). *Закон України. Про бухгалтерський облік та фінансову звітність в Україні. Відомості Верховної Ради (ВВР)*, 1999, no. 40, ст. 365 [online, accessed: 2019-01-08]. Retrieved from: <https://zakon.rada.gov.ua/laws/show/996>.
- Zhuravel', H. P., Klevets', V. B., Oliynychuk, V. M., Khomyun, P. Ya. (ed.) = Журавель, Г. П., Клевещ, В. Б., Олійничук, В. М., Хомин, П. Я. (ред.). (2013). *Амбівалентність та мімікрія облікової теорії*. Тернопіль: Тнеу.

## Аутсорсинг и коммуникационные технологии в сфере учетно-информационного обеспечения предприятия

**Аннотация:** В условиях постиндустриальной экономики приобретает актуальность делегирование учетных функций с целью уменьшения трудоемкости работ, минимизации административных расходов, недопущения штрафов и финансовых санкций за нарушение законодательства в области бухгалтерского учета и налогообложения. В статье изложены перспективы ведения учета на предприятии с привлечением аутсорсинговых институтов. Обсуждены преимущества и недостатки аутсорсинга. Рассмотрены варианты делегирования учетных работ с обеспечением информационной безопасности предприятия. Определены организационные различия

предоставления услуг аутсорсинга физическими и юридическими лицами. Изложена роль коммуникационных технологий в проведении диалога между предприятием и аутсорсером. Обусловлены возможности организации учетной работы за пределами предприятия, дистанционного консультирования представителями аутсорсера, фискальной службой или другими государственными контролирующими органами с использованием коммуникационных технологий с целью выполнения в режиме реального времени корректировок определенных действий для принятия управленческих решений.

**Ключевые слова:** учет, аутсорсинг, коммуникационные технологии, учетно-информационное обеспечение

## Informacja w rachunkowości przedsiębiorstwa – technologie outsourcingowe i komunikacyjne

**Абстракт:** W gospodarce postindustrialnej delegowanie funkcji księgowych staje się istotne w celu ograniczenia kosztów pracy, zmniejszenia obciążeń administracyjnych, zapobiegania karom finansowym za naruszenie przepisów prawa podatkowego. W artykule przedstawiono perspektywę rachunkowości w przedsiębiorstwie przy zaangażowaniu instytucji outsourcingowych. Zaprezentowano zalety i wady takich rozwiązań, naświetlono problem powierzenia prac księgowych firmie zewnętrznej w kontekście zapewnienia bezpieczeństwa informacji w przedsiębiorstwie. Określono różnice orga-

nizacyjne w świadczeniu usług outsourcingowych przez osoby fizyczne i prawne. Przedstawiono rolę technologii komunikacyjnych w prowadzeniu dialogu między przedsiębiorstwem a zleceniodawcą, a także możliwości organizowania pracy księgowej poza przedsiębiorstwem, w tym konsultacje zdalne z przedstawicielami outsourcера, ze służbami podatkowymi lub z innymi państwowymi organami nadzorującymi, z wykorzystaniem dostępnych technologii komunikacyjnych w celu dostosowania niektórych działań w czasie rzeczywistym, aby móc podejmować decyzje zarządcze.

**Слова ключевые:** rachunkowość, outsourcing, technologie komunikacyjne, księgowość i wsparcie informacyjne