



## Improvement and evaluation of the financial (accounting) services quality in the era of SARS-COV-2

Izabela Bagińska<sup>1,\*</sup> 

<sup>1</sup> Jan Długosz University of Humanities and Sciences in Częstochowa, Faculty of Law and Economics, ul. Jerzego Waszyngtona 4/8, 42-217 Częstochowa, Poland

\*Correspondence: [kancelariapodatkowa.ib@wp.pl](mailto:kancelariapodatkowa.ib@wp.pl)

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### Abstract

The changes brought about by the spread of COVID-19 require from entrepreneurs a new approach to the way they manage their businesses. Accounting offices are also facing a major challenge these days. In addition to the constant changes in tax regulations and the implementation of many new provisions concerning anti-crisis shields, the way of customer service in accounting offices has also changed as they had to adapt to the new reality. The aim of this article is to present the importance of improving the quality of accounting services in the pandemic era. The first part of the paper includes the scope of services and theoretical aspects of customer service in accounting offices in the era of SARS-CoV-2 as well as the characteristics of the concept of quality. Subsequently, the results of an anonymous survey conducted among entrepreneurs who are clients of accounting offices are presented, which contributed to the formulation of conclusions on the significance of customer service quality in accounting offices. The article highlights the significant changes in the way tasks are performed in accounting firms and financial departments. Among the modern methods of providing accounting services, two have been selected which (according to the respondents) will significantly effect on the service providing quality (in particular by limiting personal contact of contractors).

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## 1. Introduction

Business management in a highly turbulent environment is becoming increasingly complex and costly. Tax law in all European countries is characterised by excessive casuistry and vagueness. Tax changes are introduced quickly, often without proper consultation, which reduces the time needed to prepare for them, whereas the implementation of new regulations often requires the application of advanced technical or IT solutions (Aspiranti et al., 2020; Chajduga et al., 2021; Hartmann and Metternich, 2020; Kapler, 2021; Peltier et al., 2020; Urban and Łukaszewicz, 2021).

The environment in which an enterprise operates is extremely regulated. High demands are placed on entrepreneurs to conduct business in compliance with the law. This makes it necessary to develop and define processes based on the law, so that the entrepreneur can feel that their actions are in compliance with the law (Farmansyah and Isnalita, 2020). Despite the restrictions associated with SARS-CoV-2, including the introduced lockdown, a number of new regulations have en-

tered into legal circulation which have imposed new tax obligations on entrepreneurs. In order to survive on the market, companies are forced to implement new tax and HR obligations in a timely manner. However, not all of them have appropriate technical or personnel resources at their disposal, hence more and more often they decide to outsource accounting services (Burko, 2022; Juntunen et al., 2022; Tsai and Compeau, 2021; Muangmee et al., 2021)

Accounting outsourcing has gained importance in the pandemic times. Under the current epidemiological threat of the spread of the SARS-CoV-2 coronavirus, timely fulfilment of all tax obligations has proved difficult. Therefore, the management's actions are directed towards maintaining the operational and financial liquidity of the organisation (Kepler, 2021).

The situation created by the coronavirus pandemic has forced companies to change their management practices (Burko, 2022; Juntunen et al., 2022; ). Accounting offices also had to adapt to the new reality. Accounting offices had to offer their clients a service that would meet their expectations and

have a set of features desired by them (Kowalik and Klimecka-Tatar, 2018) Currently, accounting office take an individual approach to clients and offer them a service tailored to their requirements and to the specific market situation. Accounting ledgers are kept in accordance with current legislation. Improving the quality of the accounting service has become particularly important. In assessing the quality of an accounting service, the accounting office clients' opinions should be taken into consideration (Gambal et al., 2022; Ingaldi and Ulewicz, 2018; Juntunen et al., 2022).

The source literature abounds in definitions of quality. For example, W. E. Deming defined quality as "the expected degree of uniformity and reliability at the lowest possible cost and meeting market requirements" (Deming, 1982). P.B. Crosby, in turn, perceived quality as "compliance with requirements" (Crosby, 1982). In general, it can be assumed that quality is primarily the satisfaction of customer needs and requirements. And what is very important the level of customer satisfaction can be measured in many ways using a variety of support tools (Ingaldi, 2020)

The pandemic caused by SARS-CoV-2 has forced accounting offices to change the way they operate. In today's reality, due to numerous restrictions on personal contacts, many activities are being moved to the Internet. One of the effects of the pandemic is the increase in the number of matters handled remotely. In the traditional model, business meetings with clients mostly took place in an accounting office. At present, cooperation with an accounting office takes place largely remotely, based on digital tools (Heltzer et al., 2021).

Enabling electronic transmission of documents is not the only change that accounting offices have introduced as a result of the pandemic. On the one hand, accounting offices had to develop methods of efficient service and communication with clients, and on the other, they themselves had to organise a remote or hybrid mode of working.

The pandemic caused by SARS-CoV-2 slowed down the functioning of enterprises in many sectors. The anti-crisis shields that were introduced offered help in surviving, but many entrepreneurs had problems with interpreting these regulations correctly. Accounting offices could count on a good reputation among clients, as they offered their entrepreneurs assistance in submitting applications for the anti-crisis shields.

In the coronavirus era, a considerable change in customer expectations caused by the current market situation can be observed. Customers expect a wider range of services than before (Pacana and Ulewicz, 2019; Delibasic et al., 2021). The service is to be adapted to today's needs. Entrepreneurs want to feel safe in these uncertain times. They therefore expect to be able to transfer documents securely and to be assisted in obtaining the forms of aid offered by the government, such as, for example, business subsidies or exemptions from social security (ZUS) contributions. Customer satisfaction translates into business success. In case of an accounting service, it largely depends on its quality. The further part of the article was devoted to finding out the entrepreneurs' opinion on the quality of service offered by accounting offices in the SARS-CoV-2 era.

## 2. Experimental

The main goal of the paper was to present the importance of enhancing the quality of services offered by accounting offices in the era of SARS-CoV-2. The study was also aimed at assessing modern methods of digitization in the process of providing financial services. The study was conducted using a survey questionnaire. All entrepreneurs were asked the same questions. Businesses were intentionally selected as part of a sample comprising SME companies that use the services of an accounting office. The sample size was 112 enterprises. The size of the research sample results from the fact that the research was conducted for a group of clients from one company providing accounting services. This approach allowed for the elimination of many variables influencing the perception of service quality in relation to a wide group of enterprises. The research material was obtained in the form of direct interviews with the business owners. The questionnaire research was carried out in May 2021.

The questions were constructed on a closed set of answers. Each statement was rated by the respondent according to its agreement with their opinion. When creating the question about additional services performed by accounting offices during the pandemic, a scale ranging from 1 to 6 was adopted. When arranging the number of available response options, the format proposed by Likert was applied. This scale seems to be the most optimal to determine the range of answers and to eliminate the risk of giving too extreme answers. The respondents were also asked to evaluate the possibilities of improving the manner of providing accounting services. The respondents assessed 5 of the new methods stimulating the development of the service market in the field of financial information flow (Chajduga et al., 2021; Gotthardt et al., 2020; Mappala and Pasco, 2022). The five methods that have been presented for evaluation were as follow:

- RPA (Robotic Process Automation) - implementation of business processes with the use of robots simulating human work (e.g. rewriting, exporting and segregating accounting documents).
- AI (Artificial Intelligence) - making decisions based on decision algorithms (e.g. suggesting categories of data costs).
- ML (Machine Learning), the use of self-learning programs and machines (in conjunction with CRM, the system allows to predict customer activities).
- NLP (Natural language processing) - using digital intelligence to understand natural language.
- DM (Document Machine) - a device for transferring documents without the need for direct contact with partners.

## 3. Results and discussion

Among the surveyed enterprises the vast majority were service companies (78). There were 32 trading enterprises and 2 manufacturing enterprises (see Figure 1).

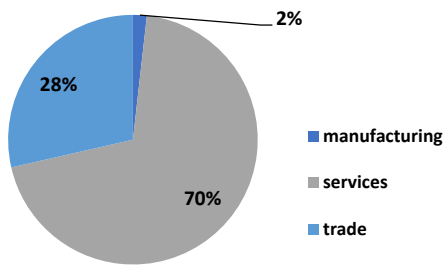


Fig. 1. Percentage structure of the type of enterprises

The obtained answers proved that in the structure of the surveyed enterprises the vast majority were enterprises employing from 1 to 9 employees (66). The second largest group were enterprises with no employees (34), while the least numerous group were entrepreneurs employing from 9 to 49 employees (12) (see Figure 2).

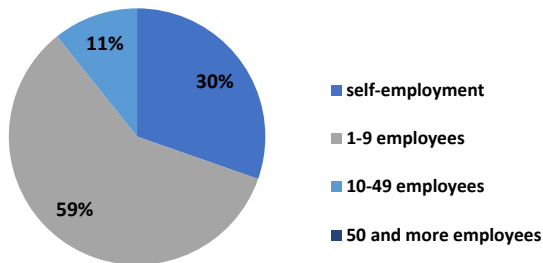


Fig. 2. Percentage structure of the enterprise size

The overwhelming majority of respondents (97) delivered documents to the accounting office in the traditional way before the pandemic. There was a marginal percentage of entrepreneurs submitting documents in an electronic form (14). Only 1 company delivered documents by post (see Figure 3).

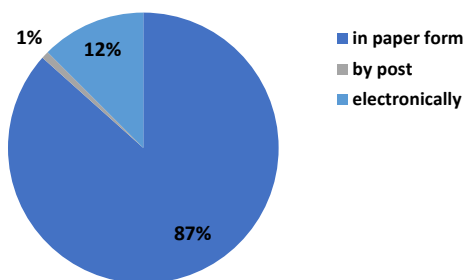


Fig. 3. Percentage structure of the method of document delivery before the pandemic

The analysis of the survey results shows that the pandemic has modified the way documents are delivered to the accounting office. Currently, as many as 78 companies send documents electronically to the office. Still 1 company delivers documents by post. The percentage of companies delivering documents to the accounting office in paper form has significantly decreased (33) (see Figure 4).

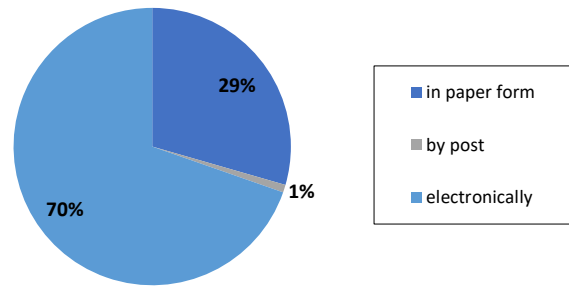


Fig. 4. Percentage structure of the method of document delivery during the pandemic

The conducted survey shows that as many as 75 companies prefer the electronic way of delivering documents to the accounting office, while 36 prefer the traditional form. The remaining 1 company prefers to send documents by post (see Figure 5).

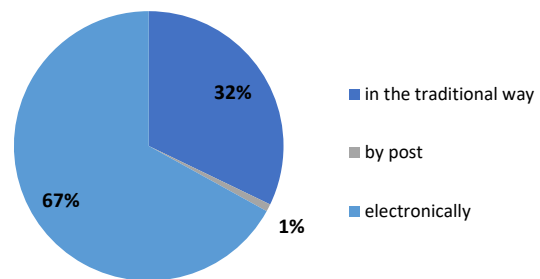


Fig. 5. Percentage structure of the respondents' preferences regarding the method of document delivery

The next question concerned additional services provided by accounting offices during the pandemic. From the analysis of the answers given by the respondents, it appears that during the pandemic accounting offices launched additional services related to the anti-crisis shields introduced by the government. These were to provide help to the most disadvantaged companies. The analysis of the respondents' answers shows that in most cases they received support from accountants in terms of information about the introduced forms of aid, preparation of applications for support from the anti-crisis shields, submission of applications for support to companies by the office as well as information about the introduced restrictions and new obligations related to SARS-CoV-2 (see Figure 6).

According to the highest number of respondents, the range of additional services provided by accounting offices in the time of the pandemic met their expectations (100) (see Figure 7).

One of the most important factors in the development of the service is the client's satisfaction with its results. Accounting offices, in order to maintain their position in a competitive market, must convince clients that the services they provide are competitive and represent an appropriate level. The client must be convinced that the accounting office will meet all his needs and provide quality. Satisfaction with the service constitutes the starting point for building a long-term cooperation with the client.

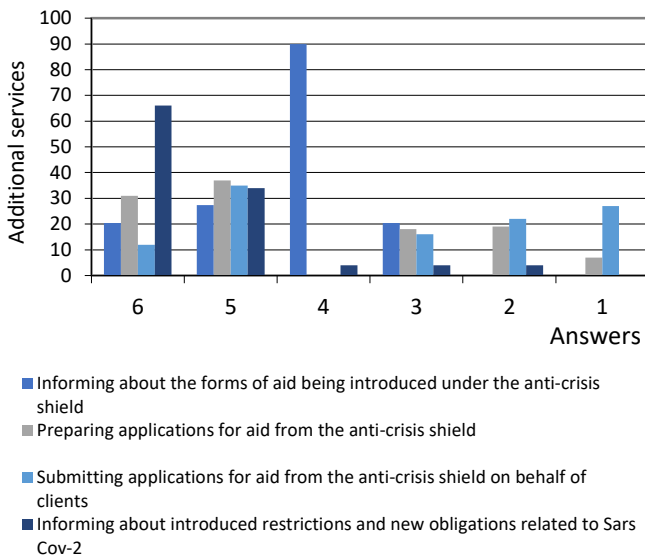


Fig. 6. The overview and structure of additional services provided by accounting offices

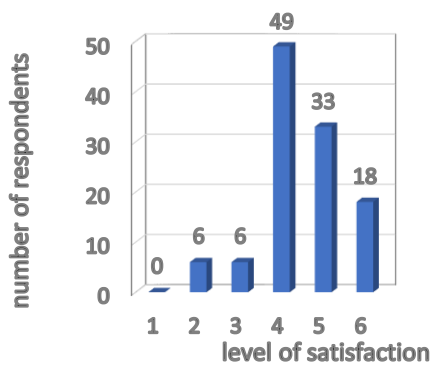


Fig. 7. Level of cooperation satisfaction with an accounting office during the pandemic

The last stage of the research was an assessment of the customers' awareness and needs in the field of implementing modern digital technologies. Attention has been taken into 5 methods that may be successfully applied in financial service enterprises: RPA (Robotic Process Automation), AI (Artificial Intelligence), ML (Machine Learning), NLP (Natural language processing), DM (Document Machine) (Chajduga et al., 2021; Gotthardt et al., 2020; Mappala and Pasco, 2022). In this part, the respondents answered 2 questions. The first was to determine the respondents' awareness of the possibility of using modern methods of remote accounting services. The respondents marked the methods that they have already known, heard about or had the opportunity to use. In the second question, the respondents assessed the importance of introducing the method to the quality of accounting services. The assessment was made on the Likert scale, where: 1 - it will significantly deteriorate the quality of the services provided, 2 - it will deteriorate the quality of the services provided, 3 - it does not

affect the quality of the services provided, 4 - it will slightly improve the quality of the services provided, 5 - it will definitely improve the quality of the services provided.

The table 1 shows the percentage structure of the answers for question about the customers' awareness in the field of implementing modern digital technologies

Table 1. The percentage structure of the answers for question about the customers' awareness in the field of implementing modern digital technologies

	RPA Robotic Process Automation	AI Artificial Intelli- gence	ML Machine Learning	NLP Natural Language Processing	DM Document Machine
%	31.3	35.7	72.3	34.8	75.9

As can be seen from the data presented in the table 1, most of indicated modern methods are known or even well known by respondents. The greatest knowledge has been indicated for two methods:

- ML (Machine Learning), the use of self-learning programs and machines (in conjunction with CRM, the system allows to predict customer activities).
- DM (Document Machine) - a device for transferring documents without the need for direct contact with partners.

Both of these methods obtained over 70% of the marks, 72.3% for ML (Machine Learning), and 75.9% for DM (Document Machine). Other methods, despite the fact that they were known to a significant number of respondents, obtained only about 30-40% of votes.

Table 2 presents the average value of the assessment resulting from question 2 concerning the impact of the implementation of a modern method on the perception of the accounting services quality.

Table 2. The importance of introducing the modern digital technologies to the quality of accounting services - the average value

	RPA Robotic Process Automation	AI Artificial Intelli- gence	ML Machine Learning	NLP Natural Language Processing	DM Document Machine
Av.	3.5	3.6	4.7	3.1	4.2

As can be seen from the data presented in Table 2, customers (respondents) see great benefits in the implementation of modern technologies in the conduct of business processes (accounting services processes). The highest average value resulting from the evaluation was obtained for ML (Machine Learning) - 4.7, and DM (Document Machine) - 4.1. At the same time, it should be noted that all the indicated methods received an average rating greater than 3, which clearly indicates that there is a very high demand (among customers) for the implementation of modern digital technologies in the accounting services providing.

## 4. Summary and conclusion

In a rapidly changing reality, accounting offices need to be flexible and react quickly enough to emerging competition. The results of the conducted surveys confirm that in the era of the pandemic, accounting office began to provide additional services aimed at enabling their clients to obtain funds and other forms of support provided by the anti-crisis shields. In this way they are becoming more competitive in relation to competitors who do not provide such services.

Electronic transfer of documents to the accounting office is a response to the current situation caused by SARS-CoV-2. The lack of personal contact, and thus the lack of risk of infection or transmission of the virus, is one of the many advantages of this form of document transfer. It turns out that it is not only a safe form of contact between an entrepreneur and their accountant, but also convenient, fast and very economical. Electronic delivery of documents to an accounting office is beneficial to both parties - the entrepreneur saves time and money, and the accountant has easier work and simplified contact with their clients.

In many cases, the lack of information proved to be the biggest problem. Entrepreneurs applying for aid often did not know how, for example, to determine the number of employees in order to qualify a company for the micro or SME sector. The regulations often left wide room for interpretation. The conducted survey confirms that in the vast majority of cases it was the accountants who explained to entrepreneurs the complexities of successive versions of anti-crisis shields. In many cases it was also them who prepared the ready-made application and submitted it on behalf of the client.

The situation in which the accounting sector has found itself shows that providing additional services and enabling clients to transfer documents electronically enhances the quality of accountants' work.

One of the most important factors in the development of the service is the client's satisfaction with its results. Accounting offices, in order to maintain their position in a competitive market, must convince clients that the services they provide are competitive and represent an appropriate level. The client must be convinced that the accounting office will meet all his needs and provide quality. Satisfaction with the service constitutes the starting point for building a long-term cooperation with the client.

As it results from the presented research results, there is a great demand among clients of companies providing accounting services for the implementation of modern digital technologies in the accounting services providing. The most promising, from the point of view of service quality, seems to be the implementation of:

- ML (Machine Learning), the use of self-learning programs and machines (in conjunction with CRM, the system allows to predict customer activities).
- DM (Document Machine) - a device for transferring documents without the need for direct contact with partners.

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## SARS-COV-2 时代金融（会计）服务质量的提升与评价

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### 關鍵詞

质量  
品质提升  
服务质量  
会计服务  
金融服务  
服务管理

### 摘要

COVID-19 的传播带来的变化要求企业家采用新的方法来管理他们的业务。如今，会计事务所也面临着重大挑战。除了税收法规的不断变化和许多有关抗危机盾牌的新规定的实施外，会计事务所的客户服务方式也发生了变化，以适应新的现实。本文的目的是介绍在大流行时代提高会计服务质量的重要性。论文的第一部分包括 SARS-CoV 2 时代会计事务所客户服务的服务范围和理论方面以及质量概念的特点。随后，介绍了对作为会计师事务所客户的企业家进行的匿名调查结果，这有助于得出关于会计师事务所客户服务质量重要性的结论。文章重点介绍了会计师事务所和财务部门执行任务的方式的重大变化。在提供会计服务的现代方法中，选择了两种（根据受访者）将对提供服务的质量产生显著影响（特别是通过限制承包商的个人联系）。

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