FINANCIAL SCIENCES
NAUKI O FINANSACH

**Financial Sciences. Nauki o Finansach**
Year 2024, Vol. 29, No. 1
ISSN 2449-9811
journals.ue.wroc.pl/fins

# Do the Current Accounting Regulations Facilitate the Creation of Provisions for Risks Related to IT Systems?

**Małgorzata Białas**

AGH University of Krakow, Faculty of Management, Department of Finance and Accounting

e-mail: mbialas@agh.edu.pl

ORCID: 0000-0003-2703-4836



**Quote as:** Białas, M. (2024). Do the Current Accounting Regulations Facilitate the Creation of Provisions for Risks Related to IT Systems? *Financial Sciences*, *29*(1), 65-73.

DOI: 10.15611/fins.2024.1.05

JEL: G30, M41

## Abstract

**Aim:** The research objective of the study was to examine whether accounting regulations clearly and precisely define when and how provisions should be created for the effects of risk in the IT area. Moreover, it was considered whether Polish enterprises create such provisions, and if not, why not.

**Methodology:** In connection with these research questions, an analysis of the applicable accounting regulations was carried out. Data from the Central Statistical Office were analyzed in terms of the level of provisions created. Additionally, the results of interviews with accountants were described. Finally, an analysis of the financial statements of two banks was conducted in terms of the value of provisions created for risks related to IT systems.

**Findings:** The analysis of the data from the Central Statistical Office showed a very low level of provisions created by enterprises operating in Poland. As a result of the interviews with accountant, it turned out that the reason for the lack of creation of provisions is the difficulties associated with estimating the amount of such provisions and (relative) sense of security in this respect.

**Implications:** According to the author, the research conducted and the interviews with accountants indicate the lack of appropriate regulations explaining the methods of creating provisions the effects of risk in the IT area. Education regarding the risks that IT systems may generate also seems to be crucial.

**Originality/value:** Researchers mainly deal with general analysis of the level of provisions in enterprises. However, there is a lack of research in the literature on provisions for risk effects in the IT area. The conducted research indicates the desired directions of changes in the accounting regulation of the principles and methods of creating provisions.

**Keywords:** provisions, risk, IT systems

## 1. Introduction

Nowadays, running a business is becoming an increasingly difficult task for entrepreneurs who are faced with new challenges and new types of risks. This is due to, among other things, the tense situation in the geopolitical arena, and the occurrence of unpredictable phenomena that can lead to the emergence of a crisis. In addition, there is the vision of cooperation between humans and advanced technologies, such as artificial intelligence or robotics. As a result of using modern technological solutions, companies are entering another industrial revolution called Industry 5.0. In addition to the undoubted benefits that result from the use of new technologies, it is also necessary to remember the negative side of this phenomenon, i.e. the risk and uncertainty resulting from the use of modern solutions. For example, a company using advanced technologies may be exposed to software errors, viruses, and hacker attacks.

The rapidly changing environment force us to reflect and ask the following research questions whether economic entities are adequately prepared for incurring expenses in the event of realisation of the negative effects of risk related to IT systems. From the point of view of accounting, the answer to such threats may be the creation of provisions. It is believed that the created provisions demonstrate the ability to predict the future and to exercise caution in managing the enterprise.

The research objective of the study was to analyse accounting regulations concerning the principles of creating provisions for future effects of economic risk in the area of new technologies and their practical use. In addition, the following research questions were asked: Do Polish enterprises create provisions for the effects of risk related to IT systems? What are the main reasons for the lack of creating such provisions by enterprises?

In order to answer these questions, first of all, an analysis was conducted of the guidelines contained in the Accounting Act (Ustawa o rachunkowości, 1994) and the National Accounting Standard No. 6 (KSR 6) (Krajowy Standard Rachunkowości nr 6, 2014) regarding provisions for risks related to IT systems. Then, the results of interviews with accountants on the value of provisions created for this type of risk were presented. In addition, data from the Central Statistical Office [Główny Urząd Statystyczny] sources regarding the share of provisions in the balance sheet total were revealed to highlight the problem of the small scale of provisions created in enterprises operating in Poland. The final section presents examples of the two largest banks operating in Poland, which, due to the implementation of advanced IT systems, should be an example of creating provisions for the effects of this type of risk.

## 2. Risk as an Inherent Element of Running a Business

Risk is an inherent element of the functioning of every enterprise and concerns almost every area of the functioning of an economic entity, starting from investments in new production lines and ending with IT systems. This risk is related to uncertainty, which results from the lack of full and reliable information about external and internal factors in the future. It can therefore be assumed that uncertainty is a function of time and information. On the other hand, risk is a function of that part of uncertainty that can be determined by the probability of an event occurring (Iwaszczuk, 2021, p. 5). In other words, “uncertainty” is associated with a lack of certainty or a lack of security (PWN, 1988, p. 347).

The concepts of uncertainty and risk were probably introduced to economic literature in the 18th century. The idea of including these two concepts in economic considerations was of great importance, because thanks to this, economic sciences could get closer to real economic phenomena (Lange, 1967, p. 193). Knight was most often mentioned as the first to define these two concepts in his 1921 treatise “Risk, Uncertainty and Profit”. According to his study, risk concerns only such cases that can be measured and expressed quantitatively, while in the case of uncertainty there is no such possibility.

Risk is therefore a measurable uncertainty, while uncertainty is immeasurable (cf. Bochenek, 2012, p. 52).

Due to increasing globalisation and digitalisation, the modern world is changing rapidly, and the scale of uncertainty and threats is greater than in the past. Referring to the annual global risk report prepared in 2018 by the World Economic Forum in Davos, the most serious threats (in terms of the probability of their occurrence) are (Hausner, 2019, p. 124):

- extreme weather events,
- natural disasters,
- cyberattacks,
- fraud and data theft,
- failure of actions aimed at stopping climate change and adapting to it.

It is worth noting that three of the threats listed above concern weather phenomena and the remaining two – the IT environment. Therefore, IT risk, which is a special type of risk, should be the subject of greater interest.

## 2.1. Information Systems Risk

An important element of contemporary transformation is the automation of business processes (Robotic Process Automation – RPA). This concept first appeared in 2012 (Fersht & Slaby, 2012) and is now increasingly widely used. Interestingly, there is no clear definition of RPA in the literature. Initially, it was understood as a tool, i.e. a technology that allows for the automation of activities previously performed by people (Fersht & Slaby, 2012, p. 4). In 2018, RPA began to be treated as a comprehensive approach to managing enterprise processes (Geyer-Klingeberg et al., 2018, p. 124). In this context, RPA enables the automation of repetitive processes based on business rules, such as logging into apps, transferring files, copying and pasting data, and filling out forms, allowing robots to imitate user actions without their participation (Remlein et al., 2024, p. 136).

Digital transformation has not bypassed accounting either, becoming a challenge for it for at least two reasons. First, it has an impact on the development of new areas of mapping (including measurement) adapted to the changing ways of conducting business and the possibilities of creating and accessing large data sets provided by the dynamic development of technology (Łada, 2017). Second, it influences changes in broadly understood accounting practices, including the reconstruction of information processes. It can also be seen that currently the digital transformation of business processes, and not only in the area of accounting, is entering the next phase of the intelligent automation, i.e. combining process automation technology with artificial intelligence applications (Łada & Martinek-Jaguszewska, 2023, p. 97).

In the context of IT system security, risk is most often treated as a collective measure of the probability and severity of a situation in which a given threat exploits a specific weakness, causing loss or damage to system assets, namely direct or indirect damage to the economic entity (Rot, 2010, p. 353). Due to the frequent use of IT systems by companies, managing this type of risk takes on particular importance. It consists in identifying threats, measuring and controlling this type of risk in order to limit it as much as possible and securing against its negative effects. However, before taking actions aimed at limiting (reducing) the risk, it is necessary to conduct a reliable analysis of this risk. Knowledge of the types and frequency of negative phenomena in the IT area will allow for more effective actions aimed at reducing this risk.

As part of reducing the risk associated with IT systems, one can also use risk transfer, which involves transferring the consequences of damage or its financial effects to another entity (e.g. an insurance company). The key principle of risk transfer is to transfer it to an entity that is better at managing the risk than the entity that wants to get rid of or limit it. In addition to transferring the risk of IT systems

to insurers, one can also use the services of specialist external entities (e.g. in the field of computer hardware and software servicing, delivery and launching of replacement equipment in the event of a failure, storing backup copies of data, removing malicious software). It is important that the risk transfer is cost-effective and ensures that the risk is brought to an acceptable level (Liderman, 2006).

In the specialist literature on IT risk management, the topic of financing the effects of this risk has been omitted. Therefore, the subject of this publication regards provisions created in connection with the risk of IT systems. Taking into account the aforementioned global risk report prepared in 2018 and knowing that two out of five threats concern the IT environment, it should be expected that enterprises will try to prepare financially for upcoming negative events in this area. Therefore, the aforementioned research questions and the purpose of the study regarding the principles of creating provisions for the effects of risk related to IT systems appeared.

## 3. Provisions for Liabilities in the Accounting System

According to the overring principle of true and fair view, the financial report should reflect a true and fair picture of what is happening in the company. Gmytrasiewicz & Kierczyńska stated that by adhering to the concept of a true and fair view, the interests of the owners of capital are protected, which guarantees the continuation of the enterprise's operations in the near future (2007, p. 8).

When writing about the continued existence of an economic entity, accounting cannot ignore significant types of risks that threaten the functioning and existence of a given economic entity. In this study, attention was focused on risks in the IT area, which may have negative consequences for the entire enterprise.

As is known, risk cannot be completely eliminated. However, certain tools can be used to limit it. Such a mechanism, developed on the basis of accounting, are provisions. It should be remembered that their creation can only be based on risks whose occurrence can be predicted (Olchowicz, 2011).

Provisions are a very important instrument of balance sheet policy as constitute a safeguard for the entity against the occurrence of probable liabilities in the future, which are related to the current business activity (Gmytrasiewicz & Kierczyńska, 2007). It can be said that the creation of provisions shows how hard the company tries to predict the future and protect itself against negative scenarios that may occur. It is also worth noting that the recognition of provisions in the accounting records is the result of the risk recognition and assessment made by the entity's management (Niemczyk, 2007). The more reasonable and provident the manager, the greater the created provisions.

According to art. 3 sec. 1 item 21 of the Accounting Act (Ustawa o rachunkowości, 1994) [Journal of Laws 1994 No. 121, item 591, as amended], provisions are liabilities whose due date or amount are not certain. However, provisions as a balance sheet item must meet the characteristics of liabilities.

Art. 35d item 1 of this Act states that provisions are created for:

a. certain or highly probable future liabilities, the amount of which can be reliably estimated, and in particular for losses from ongoing business transactions, including those resulting from guarantees, sureties, credit operations, and the effects of ongoing court proceedings;
b. future liabilities resulting from restructuring, if the entity is required to carry it out under separate regulations or binding agreements have been concluded in this matter, and the restructuring plans allow for a reliable estimate of the value of these future liabilities.

The aforementioned elements of the definition of provisions indicate a very narrow understanding of this concept and apply only to the so-called classical provisions (sensu stricto). This type of provisions includes: provisions for uncertain liabilities of a civil law nature, e.g. provisions for pension benefits,

and of a public law nature, e.g. provisions for tax liabilities, as well as provisions for losses from ongoing business operations (Poniatowska, 2016).

Provisions in a broad sense include provisions for liabilities and losses, accrued expenses and capital provisions (Messner, 2004).

As can be seen, the Accounting Act does not directly mention provisions for losses resulting from risks in the area of IT systems. In addition to the aforementioned act, issues related to provisions are also regulated by the National Accounting Standard (KSR 6) entitled Provisions, accruals, contingent liabilities. Although KSR 6 does not use the phrase "provisions for future events resulting from risks in the area of IT systems", there are some guidelines on how to estimate them. It is written in point 4.4 that "if the provision being valued concerns a set of many future economic events, when estimating the amount of the obligation (liability), all possible amounts related to these events and their corresponding probabilities are taken into account. In such a case, the amount of the provision will depend on the probability of the occurrence of specific events in their entire set estimated by the entity" (KSR 6). This means that the business entity must monitor all negative events related to the realisation of risks in the area of IT systems (e.g. failures, data loss, hacker attacks) along with the cash expenditures that were a consequence of these events. Only then will it be possible to estimate the amount of the provision for future events resulting from risks in the area of IT systems.

In summary, Polish regulations do not speak directly about "provisions for future events resulting from risks in the area of IT systems." Nevertheless, entrepreneurs should include such provisions in their financial statements as proof of their reasonableness and predictability. However, in order to correctly estimate the value of such provisions, events and expenses related to the realisation of risks in the area of IT systems should be monitored on an ongoing basis.

## 4. Results of the Conducted Research

In order to analyse the value of provisions created by enterprises operating in Poland, aggregate data collected by the Central Statistical Office (Główny Urząd Statystyczny, n.d.) in the period 2018-2022 were used. The data concerned entities keeping accounting books and employing 10 or more people (the limitation regarding the number of people employed results from the criteria adopted by the Central Statistical Office).

Table 1 presents the share of provisions in the balance sheet total, divided into entities with a majority Polish and foreign capital.

**Table 1.** The average share of provisions in the balance sheet total calculated for business entities operating in Poland in 2018-2022, with 10 or more employees

| | 31.12.2018 | 31.12.2019 | 31.12.2020 | 31.12.2021 | 31.12.2022 |
|---|---|---|---|---|---|
| Average share of provisions in liabilities for entities with a majority **Polish** capital (%) | 5.10 | 5.54 | 5.97 | 5.53 | 4.31 |
| Average share of provisions in liabilities for entities with a majority **foreign** capital (%) | 5.08 | 5.34 | 5.62 | 5.40 | 3.97 |

Source: own work based on the balance sheet financial results of economic entities in 2018-2022 published by the Central Statistical Office (Główny Urząd Statystyczny, n.d.).

As can be seen, creating provisions by companies operating in Poland is not one of their strong points. The average share of provisions in liabilities in 2018-2022 ranged from 3.97% to 5.97%, which may seem low. Additionally, if one takes into account the fact that these provisions also include deferred income tax provisions (which constitute on average about a quarter of all provisions), the share of provisions for future other liabilities in the balance sheet total could be even lower.

The values given in Table 1 refer to the average share of provisions in the balance sheet total. This means that all industries were included in the calculations. However, the analysis of individual industries indicates that two industries, namely mining and electricity generation, demonstrate higher rates of the share of provisions in the balance sheet total (5-year average – 21.76% and 13.40%, respectively) (Białas, 2023). These are industries that significantly overstate the average values shown in Table 1. In the Central Statistical Office's studies, "provisions for future events resulting from risks in the area of IT systems" were not disclosed as a separate item – probably because a small percentage of enterprises see risk in this area of activity.

This was also confirmed by interviews conducted with accountants from the city of Bielsko-Biała, conducted at the end of March 2024. These were interviews addressed only to those entities that were subject to audit by a certified auditor. In total, 20 interviews were conducted, allowing to draw the first conclusions. In general, it was noted that accountants are reluctant to create provisions for the effects of risk related to the conducted activity. The reason is the difficulty related to estimating the value of such a provision. On their own, they are only able to calculate provisions for deferred income tax. Most often, auditors themselves, when auditing financial statements, recommend creating a provision, for example for pending court cases.

In questions about the risk associated with the functioning of IT systems, none of the respondents saw any threats or the need to create provisions for this purpose. The most common answer was that IT systems function very well because they are serviced by an external company. Additional confirmation of the safe functioning of the software is the backup copies they have. One of the companies revealed that their IT system had been hacked. The hacker demanded a ransom in exchange for the ability to use their own IT system again. After a few days, the business entity, without paying the ransom, was able to use its own IT system. It was possible to restore the lost data based on the last backup copy. However, despite such an incident, the accountant still does not see the need to create provisions for the effects of risk in the area of IT systems.

Summing up the interviews, it can be concluded that the selected business entities are optimistic about the future – one could even say too optimistic. However, provisions for future risks and unforeseen expenses are created sporadically due to difficulties in calculation – as the regulations lack specific numerical examples.

It is worth observing how the two largest banks operating in Poland (the largest in terms of total assets) deal with this type of provisions. It should be expected that these institutions, in connection with the implementation of many IT systems combined with artificial intelligence, will be aware of the possible negative events resulting from the use of these IT systems. The financial statements of PKO BP SA and Pekao SA were analysed. Tables 2 and 3 present selected financial data of these two banks.

**Table 2.** Selected financial data of PKO BP SA bank (PLN million)

| | 31.12.2021 | 31.12.2022 | 31.12.2023 |
|---|---|---|---|
| Total assets | 388 816.00 | 405 168.00 | 474 680.00 |
| Total provisions, including: | 1 616.00 | 2 048.00 | 4 119.00 |
| • for granted financial and guarantee liabilities | 672.00 | 829.00 | 748.00 |
| • for unresolved disputes | 99.00 | 97.00 | 107.00 |
| • for disputes against the bank concerning mortgage loans in convertible currencies | 595.00 | 851.00 | 3 001.00 |
| • for reimbursement of costs related to early repayment of consumer and mortgage loans | 15.00 | 17.00 | 8.00 |
| • for pensions and other liabilities related to post-employment benefits | 55.00 | 64.00 | 69.00 |
| • for restructuring | 47.00 | 35.00 | 29.00 |
| • for unused vacation | 91.00 | 97.00 | 115.00 |
| • other, including employee disputes | 42.00 | 58.00 | 42.00 |
| **Share of provisions in the balance sheet total (in %)** | **0.42** | **0.51** | **0.87** |

Source: own work based on financial results from the financial statements of PKO BP SA bank (PKO BP SA, n.d.).

**Table 3.** Selected financial data of Pekao SA bank (PLN million)

| | 31.12.2021 | 31.12.2022 | 31.12.2023 |
|---|---|---|---|
| Total assets | 241 275.20 | 271 705.00 | 294 477.00 |
| Total provisions, including: | 936.00 | 1 394.00 | 1 871.00 |
| • for granted financial and guarantee liabilities | 441.00 | 449.00 | 552.00 |
| • for unresolved disputes | 66.00 | 78.00 | 67.00 |
| • for disputes against the bank concerning mortgage loans in convertible currencies | 113.00 | 425.00 | 772.00 |
| • for reimbursement of costs related to early repayment of consumer and mortgage loans | 16.00 | 35.00 | 11.00 |
| • for pensions and other liabilities related to post-employment benefits | 235.00 | 239.00 | 287.00 |
| • for restructuring | 17.00 | 11.00 | 6.00 |
| • other | 48.00 | 157.00 | 176.00 |
| **Share of provisions in the balance sheet total (in %)** | **0.39** | **0.51** | **0.64** |

Source: own work based on financial results from the financial reports of Bank Pekao S.A. (Bank Pekao S.A., n.d.).

As seen in Tables 2 and 3, the listed banks create provisions for various types of risk, and their share in the balance sheet total oscillates between 0.39% and 0.87%, with PKO BP SA creating provisions of a much higher value. However, none of the banks listed provisions for future events resulting from risks in the area of IT systems in their balance sheets, however this is not a forgotten area of risk in the bank's operations. According to the additional information, banks include this type of risk in operational risk. For example, PKO BP SA even explicitly states that operational risk includes legal risk and cybersecurity risk, which should be understood as the degree of exposure to potential, negative factors related to IT technologies that may cause financial damage to the organization by violating availability, integrity and confidentiality. Managing this type of risk primarily involves identifying operational risk, in particular through: collecting internal and external data on operational events and the causes and effects of their occurrence, data on business environment factors, results of operational risk self--assessment, data on the values of operational risk indicators and data on the quality of the internal control system. As part of measuring operational risk, banks focus on:

- calculating operational risk indicators: KRI (Key Risk Indicators) and RI (Risk Indicators),
- calculating the requirement for own funds for operational risk,
- conducting stress tests,
- calculating internal capital.

Taking the above into account, it can be assumed that banks create so-called silent provisions for risks in the area of IT systems, maintaining their own funds at an appropriately high level, while taking into account the requirements regarding the value of the solvency ratio.

## 5. Conclusion

The research objective of the study was to analyse accounting regulations concerning the creation of provisions for future events resulting from risks in the area of IT systems and their practical use.

When analysing accounting regulations, the term 'provisions for IT system risk' or a similar concept was not found elsewhere. However, taking into account the overriding accounting principle, which is the *true and fair view* principle, it would be necessary to include provisions for future effects of business risk related to IT systems in financial reporting. However, KSR 6 provides general guidelines on how to estimate such provisions. It is required to include all possible amounts related to such events and the probability of their occurrence. Therefore, each business entity should monitor all events

related to the realisation of risks in the area of IT systems (e.g. failures, viruses, hacker attacks) together with the incurred expenses resulting from these events. Only then will it be possible to estimate the value of provisions in the area of IT systems.

In order to answer the first research question concerning provisions for risks in the IT area, data collected by the Central Statistical Office were analysed. The share of provisions in the balance sheet total of enterprises operating in Poland was verified. Unfortunately, this indicator turned out to be very low. Moreover, the data collected from the Central Statistical Office did not include a separate category of provisions for risks in the area of IT systems.

Moreover, an analysis of the balance sheets of the two largest banks operating in Poland was conducted. Despite the high value of provisions created by these banks, no separate item was found concerning provisions for risks in the area of IT systems. However, the selected banks did not ignore this type of risk, as they included it as cybersecurity risk in operational risk, which is monitored and for which capital provisions are created (resulting from the solvency ratio).

Therefore, in answering the first research question, it should be noted that Polish companies do not create explicit provisions for risks in the area of IT systems. However, they can create silent provisions, as is the case with banks.

In order to answer the second research question concerning the reasons for the lack of creation of such provisions by businesses, interviews were conducted with employees of the accounting department. As a result of the interviews, it turned out that they were reluctant to create provisions for the effects of risk related to the conducted activity. No accountant created provisions for the risk of IT systems, explaining the difficulties in estimating the amount of such provisions and (relative) sense of security in this respect. Indeed, the lack of precise regulations and numerical examples in KSR 6 may be the reason for the difficulty in estimating provisions for risks in the area of IT systems.

## References


Bank Pekao S.A. (n.d.*). Relacje inwestorskie. Raporty i sprawozdania*. Retrieved September 29, 2024, from: https://www.pekao.com.pl/relacje-inwestorskie/raporty-i-sprawozdania/raporty.html?year=2021&category=annual-reports

Białas, M., (2023). Corporate governance jako jeden z czynników mających wpływ na wysokość rezerw podmiotów z branży górniczej w latach 2018–2021. *Studia i Prace Kolegium Zarządzania i Finansów SGH*, *190*, 97-109.

Bochenek, M. (2012). Ryzyko i niepewność w naukach ekonomicznych – rozważania semantyczne. *Ekonomia*, *4*(21), 46-63.

Fersht, P., & Slaby, J. (2012). *Robotic Automation Emerges as a Threat to Traditional Low-cost Outsourcing*. HfS Research. https://www.horsesforsources.com/wp-content/uploads/2016/06/RS-1210_Robotic-automation-emerges-as-a-threat-060516.pdf

Geyer-Klingeberg, J., Nakladal, J., Baldauf, F., & Veit, F. (2018). *Process Mining and Robotic Process Automation: A Perfect Match*. 16th International Conference on Business Process Management (BPM), Sydney, Australia, Conference Paper, 124–131.

Główny Urząd Statystyczny [The Central Statistical Office]. (n.d.). Retrieved April 13, 2024, from: https://stat.gov.pl/

Gmytrasiewicz, M, & Kierczyńska, U. (2007). *Rezerwy w rachunkowości i podatkach*. Difin.

Hausner, J. (2019). Przedsiębiorczość i produktywność w gospodarce cyfrowej. In J. Hausner & W. Paprocki (Eds.), *Dewiacje finansjalizacji* (pp. 114-133 ). CeDeWu.

Iwaszczuk, N. (2021). *Ryzyko w działalności gospodarczej: definicje, klasyfikacje, zarzadzanie*. Wydawnictwo IGSMiE PAN.

Knight, F. H. (1964). *Risk, Uncertainty and Profit, Reprints of Economic Classics*. Augustus M. Kelley.

Krajowy Standard Rachunkowości nr 6 [The National Accounting Standard No. 6]. (2014). *Rezerwy, bierne rozliczenia międzyokresowe kosztów, zobowiązania warunkowe*. Retrieved from: https://www.gov.pl/web/finanse/krajowe-standardy-rachunkowosci

Lange, O. (1967). *Optymalne decyzje. Zasady programowania*. 2nd edition revised. PWN

Liderman, K. (2006). Zarządzanie ryzykiem jako element zapewnienia odpowiedniego poziomu bezpieczeństwa teleinformatycznego. *Biuletyn Instytutu Automatyki i Robotyki, 2*(23), 37-87.

Łada, M. (2017). Od konsekwencji do antecedencji – zmiana orientacji pomiaru we współczesnej rachunkowości. *Zeszyty Teoretyczne Rachunkowości*, *92*(148), 85-96.

Łada, M., & Martinek-Jaguszewska, K. (2023). Autonomizacja procesów rachunkowości. *Zeszyty Teoretyczne Rachunkowości*, *47*(3), 95-111. https://doi.org/10.5604/01.3001.0053.7697

Messner, Z. (Ed.) (2004). *Rachunkowość finansowa.* Wydawnictwo AE w Katowicach.

Niemczyk, R. (2007). *Księgowanie rezerw*. Wydawnictwo AD. Drągowski S.A.

Olchowicz, I. (2011). *Rachunkowość podatkowa*. 9th edition. Difin.

Poniatowska, L. (2016). Rezerwy na zobowiązania jako instrument zabezpieczenia przed ryzykiem gospodarczym. *Studia Oeconomica Posnaniensia*, *4*(11), 219–227.

PKO BP SA (n.d.). *Sprawozdanie finansowe PKO Banku Polskiego SA za rok zakończony 31 grudnia 2021 roku*. Retrieved September 29, 2024, from: https://www.pkobp.pl/media_files/f0e08187-3049-49f3-92b8-77f421017759.xhtml

PWN (1988). Niepewność [*Uncertainty*]. In M. Szymczak (Ed.), Słownik języka polskiego (Vol. 2, Issue 5, p. 347).

Remlein, M., Nowak, D., & Romanchuk, K. (2024). Korzyści z wdrożenia automatyzacji procesów w rachunkowości. *Zeszyty Teoretyczne Rachunkowości*, *48*(3), 133-153.

Resolution No. 3/2014 of the Accounting Standards Committee of 4 March 2014 on the adoption of national accounting standard No. 6 “Provisions, accrued expenses, contingent liabilities”.

Rot, A. (2010). Zarządzanie ryzykiem na potrzeby bezpieczeństwa systemów informatycznych – strategie postępowania z ryzykiem. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, *118*, 348-362. https://www.dbc.wroc.pl/dlibra/publication/159881/edition/121587

Sobczak, A. (2019). Developing a Robotic Process Automation Management Model. *Informatyka Ekonomiczna*, *2*(52), 85-100.

Socik, A. (2000). Przedsiębiorstwo a ryzyko – podejście praktyczne. *Rynek Terminowy*, *10.* 49-53

Ustawa z dnia 29 września 1994 r. o rachunkowości [Act on Accounting] (Dz.U. z 1994 r. nr 121, poz. 591 z późn. zm.).

## Czy obecne regulacje w zakresie rachunkowości sprzyjają tworzeniu rezerw na ryzyka związane z systemami informatycznymi?

### Streszczenie

**Cel:** Celem badawczym pracy było zbadanie, czy przepisy księgowe jasno i precyzyjnie określają, kiedy i w jaki sposób należy tworzyć rezerwy na skutki ryzyka w obszarze IT. Ponadto rozważano, czy polskie przedsiębiorstwa tworzą takie rezerwy, a jeśli nie, to dlaczego.

**Metodyka:** W związku z tymi pytaniami badawczymi przeprowadzono analizę obowiązujących przepisów księgowych. Przeanalizowano dane z GUS pod kątem poziomu tworzonych rezerw. Ponadto opisano wyniki wywiadów z księgowymi. Na koniec przeprowadzono analizę sprawozdań finansowych dwóch banków pod kątem wartości tworzonych rezerw na ryzyka związane z systemami IT.

**Wyniki:** Analiza danych GUS wykazała bardzo niski poziom tworzonych rezerw przez przedsiębiorstwa działające w Polsce. W wyniku wywiadów z księgowymi okazało się, że przyczyną braku tworzenia rezerw są trudności związane z szacowaniem wysokości takich rezerw i (względnym) poczuciem bezpieczeństwa w tym zakresie.

**Implikacje:** Zdaniem autora przeprowadzone badania i wywiady z księgowymi wskazują na brak odpowiednich regulacji objaśniających metody tworzenia rezerw na skutki ryzyka w obszarze IT. Kluczowa wydaje się również edukacja dotycząca ryzyka, jakie mogą generować systemy IT.

**Oryginalność/wartość:** Badacze do tej pory zajmowali się głównie ogólną analizą poziomu rezerw w przedsiębiorstwach. Jednak w literaturze brakuje badań dotyczących rezerw na skutki ryzyka w obszarze IT. Przeprowadzone badania wskazują pożądane kierunki zmian w regulacji księgowej zasad i metod tworzenia rezerw.

**Słowa kluczowe:** rezerwy, ryzyko, systemy IT