

ACCOUNTING AND ECONOMIC-FINANCIAL ANALYSIS IN BUSINESS MANAGEMENT. ECONOMIC AND LEGAL STUDIES*

Dr. Michał Mólka

Nowy Sącz School of Business – National Louis University, Poland
e-mail: mimolka@wsb-nlu.edu.pl; <https://orcid.org/0000-0003-1543-3354>

Dr. Krzysztof Żuk

WSEI University in Lublin, Poland
e-mail: krzysztof.zuk@wsei.lublin.pl; <https://orcid.org/0000-0003-4880-4154>

Dr. Ryszard Nowak

WSEI University in Lublin, Poland
e-mail: ryszard.nowak@wsei.lublin.pl; <https://orcid.org/0000-0003-3426-6483>

Przemysław Bochenek, MA

Nowy Sącz School of Business – National Louis University, Poland
e-mail: pbochenek@wsb-nlu.edu.pl; <https://orcid.org/0009-0006-7884-3392>

Robert Szarota, MA

Nowy Sącz School of Business – National Louis University, Poland
e-mail: rszarota@wsb-nlu.edu.pl; <https://orcid.org/0009-0000-3814-4526>

Abstract. Accounting is considered historically the oldest part of the economic sciences, having originated with the first human communities. The origins of accounting can be found in the theoretical concepts of the social sciences. However, as it evolved, accounting developed its own theory and methodology subsequently implemented in the practice of economic sciences in the discipline of finance. The concepts, views and theories developed in the accounting system were reflected in legal regulations, including the shape and principles of preparing financial statements. The difference

* The article is the result of the own statutory research of the WSB-NLU in Nowy Sącz and the WSEI University of Lublin on public investment efficiency processes in the context of New Public Management.

between financial analysis and accounting is particularly evident in the decision-making process. Accounting gathers and presents data on the basis of an ex-post approach (something has happened and is reflected in the records), while the analyst (manager) assesses the situation of the company on the basis of these data, analyses the company's environment and makes decisions not only on the current basis, but also on a strategic basis (planning – on the basis of an ex-ante approach, making future decisions on the basis of historical data – ex-post).

Keywords: accounting law; management accounting; decision-making; economic analysis; financial management; tax law; balance sheet law.

INTRODUCTION

The indicators used in theory and practice for the economic analysis of a company originate from the practice of bank analyses. Banks were the first to develop and implement indicators analysing – important for the grade of creditworthiness and ensuring the bank's liquidity – the relations between short-term assets and liabilities, including the issues of dividing assets and liabilities according to the degree of their liquidity and timeliness, etc. The experience, resulting from bank analyses, has been disseminated over time and adapted in the economic activity of business entities and appropriately extended and modified to adapt them to the specifics of financial analysis [Wołowiec 2021b, 12-20].

In conditions of high volatility and instability of the micro- and macro-economic and social environment of companies, as well as rapid development of new technologies, management decision-making, is hampered and requires stable, fast and reliable economic information. Therefore, economic analysis is an important factor in providing the information necessary for efficient and effective business management.

The subject of economic analysis research includes the grade of quality and reliability of information derived from the analysis of a company's economic activity – its economic condition and the financial results achieved.

Economic analysis encompasses all economic and social phenomena occurring in the enterprise's closer and further environment. Their study and analysis consists of: the division of economic phenomena and processes into individual components, the determination of cause-and-effect relationships between the studied elements, and the formulation of conclusions, resulting from the analysis and comparative grades. Nowadays, economic analysis is a separate scientific discipline that grew out of detailed economics and is linked to other scientific disciplines, i.e. statistics, accounting, finance, mathematics, planning, technology, etc. From the point of view of the subject, the following should be distinguished in economic analysis: macro- and micro-economic analysis, financial analysis and technical-economic analysis.

Macroeconomic analysis involves the study and grading of so-called aggregate economic quantities at the level of the whole economy. However, it can provide a lot of useful information for the enterprise, such as general growth trends, the level of certain indicators (e.g. profitability in the total economy for the entire industry) allows hypotheses to be made on the development of the country and the consumption of product groups of interest to the enterprise [Artyukhova, Tiutiunyk, Bogacki, et al. 2022, 7711].

Microeconomic analysis deals with the study and grade of the activities of economic entities such as the enterprise, the household or the individual, as well as problem analyses concerning the main economic products in a given period, e.g.: labour productivity, own costs, asset turnover.

Financial analysis deals with economic values in monetary terms, and covers two main areas: the financial state of the enterprise determined at a specific moment in time (a static approach to the subject of analysis) and the financial results of the enterprise determined cumulatively over a certain period – month, quarter, year (a dynamic approach to the subject of analysis).

Technical-economic analysis is based on the study of economic quantities in material and personal terms and focuses on the grade of individual sections of the company's economic activity.

Internal analysis carried out by the company itself for the purposes of day-to-day and strategic management. The company's financial reporting is analysed, as well as detailed data from accounting records, management accounting or cost accounting. Internal analysis aims to search for ways to optimise decision-making processes, through proper selection and grading of the information collected. Internal analysis plays an important role in the operational and strategic management of a company, so its subject and scope is much broader than external analysis [Gabrusewicz 2011, 56-57; Idem and Remlein 2011, 23-27].

Retrospective analysis – includes a grade of the results of past activities, thus creating a premise for current and future intentions. We can distinguish between the following internal sub-analyses: current (operative) analysis is a systematic evaluation of the course of actions taken, with the aim of possibly detecting negative consequences of economic events and disruptions in the realisation of individual tasks and objectives, as quickly as possible, so that it is possible to make the necessary corrections; prospective analysis includes the identification and grade of various options for solutions (before decisions are made), with the simultaneous application of economic calculation. It is used for medium- and long-term planning in the company, and functional analysis involves the division and separate study of individual economic phenomena occurring in the company's activities, by persons or organizational units functionally responsible for the formation and development of these phenomena. Such analysis is usually carried out by a number of

people, which reduces the time for its execution [Grzenkiewicz, Kowalczyk, Kusak, et al. 2017, 45-47; Bednarski, Borowiecki, Duraj, et al. 2018, 15-19].

1. ACCOUNTING AND ECONOMIC ANALYSIS IN BUSINESS MANAGEMENT

Accounting is recognised as historically the oldest part of economic science, having originated with the first human communities. The phenomenon of modern accounting is that it is based on principles described as early as the 15th century. The origins of accounting can be found in the theoretical concepts of the social sciences. However, in the course of its functioning, accounting has developed its own theory and methodology subsequently implemented in the practice of economic sciences in the discipline of finance. The concepts, views and theories developed in the accounting system were reflected in legal regulations, including the shape and principles of preparing financial statements. conceptual framework for the preparation of financial statements. Over the years, the accounting information process has been described, which proceeds in the following stages: 1) identification of data on events and observable objects and their documentation, 2) transformation of data using accounting-specific processing methods and procedures, as well as the use of special recording devices, 3) presentation and communication of information in the form of reports [Gos 2015, 63].

Nowadays, accounting is defined as a universal (it can be applied to different companies, e.g. of different sizes, from different industries) and flexible (it provides information with different levels of detail) information and control system that reflects the course and results of the company's activities [Jaklik and Micherda 1995, 10]. Accounting has three basic functions: informational (provides information for decision-making in the process of business management, source of information for external audiences), control (protects business assets from misappropriation and destruction, influences the rational use of business assets) and analytical (interprets the figures provided) [Wołowicz 2007a, 53-57].

Accounting can be divided into two basic elements: financial (external) accounting, which generates information about the economic activity of the company in the past, mainly for external users, includes: accounting, i.e. a system of recording economic operations, based on appropriate methods, principles and rules, financial reporting, consisting of providing information mainly for the needs of external users in the scope and form prescribed by law, analysis of financial statements, and managerial accounting (managerial – internal) focused on providing information for internal needs, providing the basis for decisions concerning the future [Zaleska 2012, 13-14].

2. ACCOUNTING POLICY AND STRATEGY

Accounting policies are based on specific principles that allow the recipient of financial statements to understand how the resources and results of the company's activities are measured. We can distinguish: 1) the accrual basis – whereby revenue and expenses are recorded on an accrual basis, i.e. they are deemed to be earned or incurred, respectively, when they occur, rather than when the cash is received or spent; 2) the principle of matching revenues and expenses – costs incurred in achieving certain revenues are set against those revenues to determine the result of operations for the period; 3) the principle of prudence – stating that in determining the value of revenues and assets as well as costs and liabilities, one should be guided by prudence and take a pessimistic view, not overestimate revenues and assets, and not understate costs and liabilities; 4) the principle of continuity, according to which, in the course of a financial year, no changes should be made to the principles adopted; moreover, the balances of assets and liabilities shown in the books of account on the day they are closed should be entered in the same amount in the books of account opened for the next financial year; 5) the going concern principle, which assumes that the activity of the company in question is not limited in time, the company has no intention or need to liquidate or significantly reduce the size of its business in the future; 6) the principles of regularity (1) and fair presentation (2), the former being implemented mainly by the auditor examining the compliance of the accounts with the law, the latter assuming that the company's accounts should give a faithful picture of the company's financial position.¹

The Accounting Act sets out the principles of accounting and the rules for the provision of bookkeeping services. The Act defines the scope of an entity's accounting, which includes: 1) the adopted accounting principles (policy); 2) keeping, on the basis of accounting evidence, books of account, recording events in chronological and systematic order; 3) periodical determination or verification by means of stocktaking of the actual state of assets and liabilities; 4) valuation of assets and liabilities and determination of the financial result; 5) preparation of financial statements; 6) collecting and storing accounting evidence and other documentation provided for by law; 7) having the financial statements audited, filed with the competent court register, made available and published in the cases provided for by the Act [Wołowiec 2010, 499-508].

Accounting is the main and most important source of economic information on a company's economic activities. Regardless of how it is defined, it is intended to represent economic reality accurately and to communicate

¹ Act of 29 September 1994 on accounting, Journal of Laws No. 121, item 591 as amended.

these representations to external stakeholders. As an applied science, accounting has a practical purpose, i.e. the measurement of the flows and incremental value of a company, made to facilitate management and investment decisions based on performance accounting. Business management is a continuous process of making and implementing diverse and sometimes contradictory decisions. One method that facilitates good decision-making is financial analysis, which examines and grades a company's performance.

The tool for measuring and describing economic and financial values is accounting theory, which explains the principles for measuring economic and financial values in relation to the company sector, and indirectly the results of these measurements are used for making economic decisions at the macro level. The development of management science has led to the emergence, alongside financial and management accounting, of a new field of knowledge called controlling, which covers planning, control and management. Controlling can be defined as a cross-functional management instrument, which is a result-oriented control process of a company, implemented through planning, control, reporting and management, while accounting in the aspect of controlling is an instrument providing various decision-making levels with cross-sectional information, necessary for future-oriented company management [Dobija 1997, 61; Nowak 2009, 14-17].

Accounting can be defined as a system, providing users of reports, with information about the economic activity of an entity. The data collected by the accounting system can be presented in the form of: internal reports to managers for planning purposes, control of day-to-day operations and day-to-day decision-making; internal reports to managers for strategic planning; and external financial reports to shareholders, creditors and other external stakeholders, as well as internal [Brigham and Houston 2005, 34-36].

3. DIFFERENCES BETWEEN FINANCIAL ANALYSIS AND ACCOUNTING

The difference between financial analysis and accounting becomes particularly apparent in the decision-making process. Accounting gathers and presents data on the basis of an ex-post approach (something has happened and is reflected in the records), whereas the analyst (manager) assesses the situation of the company on the basis of these data, analyses the company's environment and takes decisions not only on the current basis, but also on a strategic basis (planning – on the basis of an ex-ante approach, taking future decisions on the basis of historical data – ex-post). When preparing financial statements, certain principles are applied, which influence their content. In view of the wide range of audiences and the comprehensive application of financial statements, they should be prepared in accordance

with six principles [Tendera and Wlaszczuk 2002, 15]: the principle of completeness (periodisation), the principle of reliability (truthfulness, relevance), principle of verifiability, the balance sheet continuity principle, the principle of prudence, the principle of timeliness.

Analysis is the process of decomposing a certain whole into its constituent parts and considering each of them separately, carried out in the process of their cognition and practical activity. Economic analysis as defined by K. Bolesta-Kukułka [Bolesta-Kukułka 1993, 3-8] is an process of search and diagnosis of the company's activities, and can concern the whole of its operations (comprehensive analysis) or selected areas, e.g. economic cost analysis, economic analysis of the project, or, for example, economic analysis of the investment task, also known as feasibility study. Comprehensive analyses are a combination of the analysis of an economic entity from both a typically economic and a financial aspect. The scope of the analysis varies depending on the needs for which it is prepared. Economic analysis is a method of examining economic phenomena in cause-and-effect relationships and determining the impact of individual factors and elementary components on the end result, usually defined as financial direction [Bednarski 2007, 19-24; Czekał and Dresler 2012, 56-49; Dębski 2013, 5-9]. Economic analysis is a scientific discipline that studies the relationships between economic phenomena – providing information about the state of the company, as well as assisting management decisions in the area of finance in both operational and strategic terms. The economic management of a company includes: processes for maintaining the functional equilibrium of the company, processes for regulating a single economic quantity and information processes aimed at identifying benchmark values around which the current values of economic quantities should be focused [Dobija 1997, 52]. Economic and financial planning seeks to define appropriate ranges of variation for a set of important economic quantities. Economic control is based on the knowledge of a number of benchmark, normative and desirable values. M. Dobija divides the sources of benchmark values into: external – established by administrative and financial law and institutions that can do so by law, (e.g. official prices, depreciation rates, interest rates, tax rates, exchange rates) and internal – created in the company in order to effectively control the economics of the company – in particular, they concern costs, (they concern the internal organisation of activities in the company; they exist depending on the state of organisation in the company) [ibid., 52-53]. Financial analysis makes it possible to accurately measure a company's resources and also to make forecasts for the future. This is the purpose of break-even point, NPV (Net Present Value), IRR (Internal Rate of Return), PB (Payback Period), analysis of the impact of financial 'leverage' (i.e. the ratio of equity

to various types of debt), etc. [Waśniewski 1989, 11; Gabrusiewicz 2011, 23-27; Wołowiec and Susel 2009, 203-24].

4. INTERCONNECTIONS AND COMPLEMENTARY ANALYSES – MULTIDIMENSIONAL COMPANY ASSESSMENT

Economic and financial analysis draws on the work of many other – related – scientific disciplines: management, business economics, finance, controlling, management accounting, financial accounting, marketing, and above all accounting and accounting reporting in the broadest sense. The unifying features of financial sub-analyses are primarily the quantification of economic results according to the value measures used (ratios, reports, etc.). The very differentiation of the content and results of the analyses is primarily due to the [Wołowiec 2007b, 47-51]: 1) the purpose for which the analysis is carried out, the type of economic problem/threat, 2) the need to use the information in the decision-making process (white, strategic), 3) other classification criteria, 4) the source of information used (accounting, non-accounting, estimated information), 5) form and procedure of preparing financial statements, 6) from the time dimension covered by the analysis [Janik and Paździor 2011, 6-12].

The main determinant of activities is the adopted objective of the analysis, which influences the adopted instrumentarium in the form of the selected set and information, so that the analysis is not limited to examining the structure of the financial statements alone. The grading of a company's condition based on a ratio analysis also requires differential linkages and transformations of the figures [Janik, Paździor, and Paździor 2014, 15-23; Jarzemowska 2013, 5-9; Michalski 2013, 23-29]. In indicator analysis, each indicator contains a specific information content and sometimes divergent information can be obtained about a given process/phenomenon, which is why only the use of data contained in a set of indicators gives a certain reliability.

Economic analysis can be divided by the subject of the study into: macro- and micro-economic analysis, and financial and technical-economic analysis [Bień 2011, 34-37; Sojak 2015, 43-45; Siemińska 2002, 5-11; Sierpińska and Jachna 2014, 5-20; Siudek 2004, 3-12]. Macroeconomic analysis deals with economic quantities aggregated for the level of the whole economy, while microeconomic analysis examines and evaluates the activities of companies, enterprises, households, individuals or other economic entities, from the perspective of the rationality of the decisions taken [Wojciechowski, Skrzypek-Ahmed, Wołowiec, et al. 2023, 510-25]. Current and past data on the company's financial standing should be used and taken into account in determining future operational as well as strategic decisions. A company's standing is its competitive position, its financial credibility, its economic

strength in the market, which influences the confidence of its counterparties in its reliability and the level of opinion formed about it [Dmowski, Wołowicz, Laskowski, et al. 2023, 395-409].

The most important subject of grading in financial analysis is a company's profitability, i.e. its ability to meet its short-term as well as long-term obligations. The information resulting from the economic and financial analysis is important for both managers and external stakeholders. Synthetic, comprehensible and, above all, comparable economic-financial information of a company makes it possible to quickly measure and grade the efficiency and rationality of financial management. In external analysis, the main emphasis is on ratio analysis – this should focus on the grade of liquidity, management efficiency and the financial standing of the company. The objectives of external analysis will change as the recipients (external stakeholders) of this analysis change. Shareholders, creditors and banks have a different objective in carrying out the analysis. Analyses carried out by the company itself are of a different nature; they are analyses carried out for the company's internal needs. Internal analysis takes into account the decision-making needs of the company's management and its management levels. It is referred to in the literature as a 'result control system' or even 'a substitute for a management system. The purpose, object and scope of internal analysis is much broader than that of external analysis, due to its very important role in the management of a company. An important tool of analysis is the study of the interrelationships between its elements: the profit and loss account provides information on the size of profits, but it should be noted that these figures must be considered in relation to the resources of goods and labour consumed in its production, the balance sheet shows the value of the company's assets, which must be considered in relation to its liabilities and the value-added statement indicates the size of the new value created, which must be considered in relation to the number of employees and other economic and technical factors. The economic and financial analysis should be preceded by a grade and analysis of economic information concerning the company's past (ex-post analysis). The assessment and analysis should cover the following information [Zientowska 2014, 9-11]: the financial history of the company, a description of the company's activities (identification of the industry and information on any unusual historical events), the situation of the industry to which the company belongs (information that allows the company to be compared with others in the same industry) and the economic situation of the region in which the company is located (information that allows local factors to be taken into account).

Economic and financial analyses are therefore carried out for various purposes, including: 1) for establishing the actual economic and financial state and taking measures to stimulate efficiency and rationality of management,

2) company restructuring, 3) mergers and liquidation of companies, 4) crediting the activity of companies – to determine the reliability of the grade, solvency and creditworthiness, 5) suppliers and other creditors – to grade the company's ability to meet its obligations on time.

A multidimensional company grade taking into account the interconnectedness in a logical (and complementary) manner allows the modern company to obtain information indicating the company's position on the market, its development possibilities, competitive position, etc. [Sierpińska and Jachna 2014, 15; Gabrusewicz 2011, 56-59; Gołębiowski and Taczała 2005, 45-48]. The economic and financial analysis should be carried out comprehensively, but should not overlook important details for the company. Next to the technical-economic analysis, the financial analysis is the most important part of the economic-financial analysis. Issues that are part of this analysis include: an initial and expanded analysis of the balance sheet, the profit and loss account, the determination and grade of cash flow, sources of income and their purpose, and the analysis of the financial result. The technical and economic analysis focuses primarily on material and personal factors. In order to establish the links in the analysis of the company's activities, it is necessary to combine financial and technical-economic analysis [Grzenkowicz, Kowalczyk, Kusak, et al. 2017, 51-60; Dudycz 2011, 23-30].

CONCLUSIONS

The efficiency of business operations, is one of the basic concepts studied and analysed in the economic and management sciences [Wołowiec, Kolosok, Vasylieva, et al. 2022, 3-7]. It is the foundation for the development of companies, their ability to survive and compete effectively, and consequently the basis for the stability of the economy as a whole (through tax revenues and employment) [Wołowiec 2021a, 324-32]. The literature in this area has developed a number of methods for the assessment of efficiency, which are based on a variety of economic and financial and financial-technical indicators. Changing environmental conditions, uncertainty in operations, ever-increasing customer demands, intensifying competition, especially international competition, influence management processes that stimulate restructuring processes in the area of financial (and process) management in order to achieve price-cost competitiveness and economic efficiency (internally and externally) [Czekaj and Dresler 2012, 39-46].

The accounting concept that is the guiding principle was formulated years ago in the UK and adopted by other countries. It is the 'true and fair view' concept included in International Financial Reporting Standards, EU company law directives, and in the national regulations of many countries around the world. In Polish, it is most often translated as 'faithful and fair

view', 'clear and fair view', but also 'true and fair view' or 'true and fair view'. According to this concept, 'if the financial statements comply with all the overriding accounting principles then they can be considered to present a true and fair view of the entity.' The true and fair view principle gives rise to further overarching principles which include the accrual principle. This involves recognising all transactions and other events as they occur, rather than at the time of the inflow or outflow of cash. These events are recorded in the accounts and reported in the financial statements drawn up for the period to which they relate. The accrual principle is related to another principle of matching costs and revenues. Costs and revenues are contrasted to determine the financial result of a company. The cognitive value of the financial statements is influenced by the going concern principle. It means that a company prepares its financial statements on the basis that it is able to continue its operations and will continue to do so in the future. If, on the other hand, an entity's operations are to be discontinued or curtailed then this must be included in the notes to the financial statements, as this has a clear impact on the valuation of the components of the balance sheet.

For the financial statements to be fair and specific, the information contained therein should be comparable with previous years. Related to this is the principle of continuity, whereby a company will group business operations, the valuation of assets and liabilities, the determination of financial results and the preparation of financial statements in a continuous and uniform manner according to the accounting policy adopted by the entity. All these data for subsequent years must be easily comparable, i.e. created in the same way and on the same basis. The closing balances of the various accounts for a given year should be identical to the opening balances in the following year.

Financial statements need to be readable, and with so many transactions and many components in them, it is necessary to follow established criteria and group all information, including not losing the most relevant items. This is where another principle of materiality comes in. Its main feature is that the report should contain as little detail as possible and present only those items that can be useful in assessing the company's situation. Any simplifications should not adversely affect the reliability of the picture of the entity and the reader of the report should not be misled. Ideally, an entity should use such simplifications as are permitted by the regulations for easy assessment of the financial position.

Related to the principle of materiality is the principle of non-compensation. The law states that 'the value of individual assets and liabilities, revenues and related costs, as well as profits and extraordinary losses shall be determined separately. Values of assets and liabilities that are different in kind, revenues and related expenses, as well as profits and extraordinary losses

may not be offset against each other' (Article 7(3) of the Accounting Act). The essence of this provision is that no offsetting should take place although it appears to be necessary in order to show the substance of a given transaction, mainly in the items presented in the income statement. However, this rule mainly applies to the balance sheet. The IAS takes a more flexible approach to offsetting, but emphasises that it undermines the ability of readers to understand the transactions carried out and thus grade future cash flows. Offsetting may be dispensed with unless the IAS (international accounting standards) requires or permits it.

A very important principle, which is mainly related to the valuation of assets and liabilities, is the prudence principle. Its basic intention is to value asset resources and their sources of origin in such a way that it does not distort the financial results of the enterprise. In the preparation of financial statements, uncertainty and risk in the operation of the entity must be taken into account in order for them to become reliable. All this rests with the preparer of the company's financial statements in question. He or she must take into account whether to show a pessimistic or optimistic picture of the entity, as in the course of its operation there are many circumstances that affect the financial situation and the result of the enterprise both positively and negatively. Also according to the principle, when determining the value of assets and the financial result, it should be reduced by the value in use or commercial value of the assets. According to the principle, revenues should not be overstated or expenses understated, and appropriate provisions should be made for known risks, losses or other events. Presenting a pessimistic view of an entity in accordance with the prudence principle may be detrimental to the fair and clear presentation of the entity's position [Wołowiec and Wolak 2009, 13-32].

When establishing its accounting policy, companies must choose and apply accounting principles that are defined by law, thus presenting the company's situation clearly and fairly in terms of the entity's finances, assets and results of operations. This choice contributes to ensuring that the quality and robustness of the financial statements is ensured. Simplifications that do not affect the picture of the entity may be used, but they must not serve to falsify it by manipulating the data.

Each analysis, irrespective of the method used, must have its sources, i.e. be based on specific data concerning assets, their origin, employment and other information concerning the financial sphere of the company's activity. The best and most reliable source providing all this information is the financial statements. Financial reporting is closely related to accounting, as the final financial statements are the result of processing all the data in the accounting system. Such a report is prepared for a specific period of time, the so-called reporting period – it can be a month, a quarter or a half-year,

but most often it is the financial year, as the preparation of annual reports is obligatory. However, the financial year does not have to coincide with the calendar year; it can be any other period covering 12 months of the company's operations. In accordance with the Accounting Act, the financial statements comprise the balance sheet, profit and loss account and notes to the financial statements, including an introduction to the financial statements and additional information and explanations. In addition, for entities subject to annual audit, the financial statements also include a statement of changes in equity and a cash flow statement [Wołowiec 2009, 185-203].

REFERENCES

- Artyukhova, Nadia, Inna Tiutiunyk, Sylwester Bogacki, et al. 2022. "Scenario Modeling of Energy Policies for Sustainable Development." *Energies* 15:7711. <https://doi.org/10.3390/en15207711>
- Bednarski, Lech. 2007. *Analiza finansowa w przedsiębiorstwie*. Warszawa: PWE.
- Bednarski, Lech, Ryszard Borowiecki, Jan Duraj, et al. 2018. *Analiza ekonomiczna w przedsiębiorstwie*. Wrocław: Wydawnictwo Akademii Ekonomicznej we Wrocławiu.
- Bień, Witold. 2011. *Zarządzanie finansami przedsiębiorstwa*. Warszawa: Difin.
- Bolesta-Kukułka, Krystyna. 1993. *Mały Słownik Menedżera*. Warszawa: PWE.
- Brigham, Eugene, and Joel Houston. 2005. *Podstawy zarządzania finansami*. Warszawa: PWE.
- Czekaj, Jan, and Zbigniew Dresler. 2012. *Zarządzanie finansami przedsiębiorstw. Podstawy teorii*. 3rd ed. Warszawa: PWN.
- Dębski, Wiesław. 2013. *Teoretyczne i praktyczne aspekty zarządzania finansami przedsiębiorstwa*. Warszawa: PWN.
- Dmowski, Artur, Tomasz Wołowiec, Jan Laskowski, et al. 2023. "Economic issue of material reserves management taking into account probabilistic model." *Journal of Modern Science* 54, no. 5:395-409. <https://doi.org/10.13166/jms/176382>
- Dobija, Marian. 1997. *Rachunkowość finansowa, zarządczą i Controlling*. Warszawa: PWN.
- Dudycz, Tadeusz. 2011. *Analiza finansowa jako narzędzie zarządzania finansami przedsiębiorstwa*. Wrocław: Wydawnictwo Indygo Zahir Media.
- Gabrusewicz, Wiktor. 2011. *Podstawy analizy finansowej*. Warszawa: PWE.
- Gabrusewicz, Wiktor, and Marzena Remlein. 2011. *Sprawozdanie finansowe przedsiębiorstwa*. Warszawa: PWE.
- Gołębiowski, Grzegorz, and Agnieszka Taczała. 2005. *Analiza ekonomiczno-finansowa w ujęciu praktycznym*. Warszawa: Difin.
- Gos, Waldemar. 2015. "Nauka rachunkowości – głos w dyskusji." In *Teoria rachunkowości, sprawozdawczość i analiza finansowa*, edited by Bartłomiej Nita, 57-69. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.
- Grzenkowicz, Nikodem, Jacek Kowalczyk, Aleksander Kusak, et al. 2017. *Analiza finansowo-ekonomiczna jako narzędzie oceny kondycji przedsiębiorstwa*. Warszawa: Wydział Zarządzania Uniwersytetu Warszawskiego.
- Jaklik, Andrzej, and Bolesław Micherda. 1995. *Zasady rachunkowości*. Warszawa: Wydawnictwa Szkolne i Pedagogiczne.

- Janik, Wiesław, and Artur Paździor. 2011. *Zarządzanie finansowe w przedsiębiorstwie*. Lublin: Politechnika Lubelska.
- Janik, Wiesław, Artur Paździor, and Mariusz Paździor. 2014. *Analiza i diagnozowanie sytuacji finansowej przedsiębiorstwa*. Lublin: Politechnika Lubelska.
- Jarzemowska, Magdalena, ed. 2013. *Analiza ekonomiczna w przedsiębiorstwie*. Warszawa: PWE.
- Michalski, Grzegorz. 2013. *Płynność finansowa w małych i średnich przedsiębiorstwach*. Warszawa: PWN.
- Nowak, Ewa. 2009. *Zaawansowana rachunkowość zarządcza*. Warszawa: PWE.
- Siemińska, Ewa. 2002. *Metody pomiaru i oceny kondycji finansowej przedsiębiorstw*. Toruń: Dom Organizatora TNOiK.
- Sierpińska, Maria, and Tomasz Jachna. 2014. *Ocena przedsiębiorstwa według standardów światowych*. Warszawa: PWN.
- Siudek, Tomasz. 2004. *Analiza finansowa podmiotów gospodarczych*. Warszawa: SGGW.
- Sojak, Sławomir. 2015. *Rachunkowość zarządcza i rachunek kosztów*. Toruń: Dom Organizatora TNOiK.
- Tendera, Paweł, and Helena Wlaszczuk. 2002. *Sprawozdania finansowe oraz analiza bilansu i rachunku wyników w Państwowych i Prywatnych Jednostkach Gospodarczych*. Katowice: Centrum Projektowo-Wdrożeniowe Sp. z o.o.
- Waśniewski, Tadeusz. 1989. *Metody analizy finansowej w przedsiębiorstwie*. Warszawa: PWE.
- Wojciechowski, Łukasz, Sylwia Skrzypek-Ahmed, Tomasz Wołowiec, et al. 2023. "Tax economics and tax policy and the market reactions of taxpayers." *Journal of Modern Science* 54, no. 5:510-25. <https://doi.org/10.13166/jms/176388>
- Wołowiec, Tomasz. 2007a. "Amortyzacja podatkowa w firmie." *Przegląd Organizacji* 7-8:53-57.
- Wołowiec, Tomasz. 2007b. "Outsourcing usług księgowych." *Ekonomika i Organizacja Przedsiębiorstwa* 3:47-51.
- Wołowiec, Tomasz, and Piotr Wolak. 2009. *Podstawy finansów publicznych i prawa finansowego*. Nowy Sącz: WSB-NLU.
- Wołowiec, Tomasz. 2009. "Relacje prawne i ekonomiczne pomiędzy podatkiem dochodowym od osób fizycznych i osób prawnych." In *Dylematy kształtowania struktury kapitału w przedsiębiorstwie*, edited by Janusz Ostaszewski, 185-203. Warszawa: Szkoła Główna Handlowa.
- Wołowiec, Tomasz. 2010. "Restrukturyzacja finansowa i podatkowa polskich przedsiębiorstw w warunkach kryzysu finansowego (wybrane zagadnienia)." In *Nowe wyzwania w zakresie ekonomii i polityki gospodarczej po kryzysie subprime*, edited by Janusz Ostaszewski, 499-508. Warszawa: Szkoła Główna Handlowa.
- Wołowiec, Tomasz. 2021a. *Ekonomika przedsiębiorstw. Podręcznik. Studia przypadków*. Lublin: Innovatio Press.
- Wołowiec, Tomasz. 2021b. *Analiza ekonomiczna. Podręcznik. Studia przypadków*. Lublin: Innovatio Press.
- Wołowiec, Tomasz, and Aleksander Suseł. 2009. "Podatki dochodowe a decyzje menedżerskie." *Studia Prawno-Ekonomiczne* LXXIX:203-24.
- Wołowiec, Tomasz, Svitlana Kolosok, Tetiana Vasylieva, et al. 2022. "Sustainable Governance, Energy Security, and Energy Losses of Europe in Turbulent Times." *Energies* 15:8857. <https://doi.org/10.3390/en15238857>

- Zaleska, Małgorzata. 2012. *Ocena kondycji finansowej przedsiębiorstwa przez analityka bankowego*. Warszawa: Oficyna Wydawnicza Szkoły Głównej Handlowej.
- Ziętowska, Irena. 2014. "Benedetto Cotruglio i pierwsze dzieło o teorii rachunkowości." *Zeszyty Teoretyczne Rachunkowości* 79(135):179-97.