GOLDEN ERA IN THE DEVELOPMENT OF ACCOUNTING THEORY

ЗОЛОТА ЕПОХА В РОЗВИТКУ ТЕОРІЇ БУХГАЛТЕРСЬКОГО ОБЛІКУ

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The socio-economic environment in which the enterprise operates is constantly being transformed; accordingly, accounting must be functionally improved. Accounting theory is the basis of accounting science. It provides an opportunity to improve methodical support and accounting methods and expand business entities' capabilities to independently form internal carriers of accounting, economic, financial, social and other information. The article is devoted to disclosing the most famous accounting theories of the 15th–19th centuries (the golden era of accounting theories), which Professor Oleksandr Galagan classified. The study results show that over five centuries (XV–XX), accounting grew from a craft and art to a science due to the formation and development of own theories. The formation and development of the science of accounting in the theoretical aspect in this period significantly outstripped other components of economic science. In addition to developing the eight elements of the method, scientists paid great attention to the accounting mission in society, expanding its tasks and functions. It was found that the scope and depth of the development of accounting science during this period can be demonstrated by selecting the nine most vivid theories after the works of Luca Pacioli and Benedetto Cotrugli. All these accounting theories can be divided into two main groups: 1) metaphysical accounting theories; 2) positive accounting theories. It was found that all the founders of accounting theories positioned accounting as an essential component of economic science, the so-called "mind" in managing the firm and the state. The research results show that Professor Oleksandr Galagan classified accounting theories regarding teachings that explain this type of activity from certain laws accepted by humanity. In his opinion, the highest among these accounting theories were the laws of nature. It has been proven that accounting theory should be the basis for the development of accounting science. The provisions of the accounting theories identified in the study will substantiate the further development of accounting science on the laws of causality characteristic of other sciences to form an accounting theory relevant today.

Keywords: bookkeeping, accounting theory, metaphysical accounting theories, positive accounting theories, economic science.
**Introduction.** Accounting as an art, science and professional activity has ancient roots. Its appearance is due to the needs of states and private individuals engaged in producing and exchanging public goods. The first sources available to humanity, which explain the essence of accounting activity, are the works of the Italian accounting school. Representatives of this school formed many ideas and methods that laid the theoretical basis for the professional activity of a modern accountant. The socio-economic environment in which the enterprise operates is constantly being transformed; accordingly, accounting must be functionally improved. At the same time, the rapid development of artificial intelligence technologies and other innovations has led to a debate about the lack of a future in the accounting profession and the comprehensive unification of accounting processes. However, according to Professor H. Kireytsev, “if the path is unknown, and it is necessary to go further, then one should often look back” [1, p. 13]. That is, it is advisable to rethink the foundations of the theory in order to identify opportunities for its improvement. In particular, it is worth paying attention to the “golden era” of the development of accounting theory.

**Literature review.** The study of theories as a means of substantiating the directions of further development of modern accounting science is found in the work of many scientists. In particular, the analysis of the fundamental accounting theories is present in the study of S. F. Legenchuk, which is dedicated to studying the prospects for the development of corporate reporting and identifying its directions and obstacles [2]. M. R. Luchko, in the context of the study of the knowledge theory, found that accounting as an economic science and a branch of knowledge emerges from philosophy [3]. Based on decision-making theories, the research of K. Chang, A. A. Lasyoud & D. Osman is aimed at expanding knowledge about the effectiveness of the management accounting system [4]. In addition, the works of such well-known Ukrainian scientists as T. O. Gurenko, H. M. Davydov, H. G. Kireitsev, N. M. Malyuga, I. B. Sadovska, V. Z. Semanyuk, M. S. Pushkar, P. Ya. Khomyn, V. O. Shevchuk and others [5–9] are devoted to studying accounting theories.

T. O. Gurenko states that accounting has recently become a base for accumulating information and serving the needs of internal and external users. However, the accounting system is placed almost entirely within the legislative framework and reveals less and less of the scientific side. Therefore, accounting theory should be the basis of accounting science and provide an opportunity to search for:

- new methodical accounting techniques;
- improvement of existing accounting methods;
- expansion of opportunities of economic entities regarding the independent formation of internal carriers of accounting, economic, financial, social and other information [5].

**The research aims** to reveal the most famous accounting theories of the 15th–19th centuries (the “golden era” of accounting theories), which Professor Oleksandr Galagan classified.

**Research results.** Like other areas of human activity, accounting goes through three stages of development in forming its theoretical component: craft – art – science. According to Professor O. Galagan, bookkeeping “... initially represented only a set of purely practical methods that do not have a solid, principled justification; at this stage of its development, bookkeeping represented at best only the art of accounting, and sometimes it was also a simple craft since all methods of counting work at that time were such that the usefulness and expediency of which could only be established empirically. As it developed, bookkeeping gradually began to turn from an art into a science; such a transformation of bookkeeping knowledge from the art of bookkeeping into the science of accounting, once again, happened gradually, passing through those individual stages that are inevitable in the development process of any scientific discipline” [10, p. 15].

In the first stage, accounting represented a recognized set of technical techniques that did not have a scientific explanation and justification. In the second stage, the explanation of certain
technical techniques was characterized by metaphysical approaches. Professor O. Galagan singles out this stage with the emergence of the legal accounting theory or the theory of personification.

The theory of personification was based on the doctrine of the role and importance of economic agents; the essence of this doctrine was that each economic agent always has certain economic values in his possession and under his responsibility. Therefore, each economic transaction can be considered as the receipt and delivery of certain economic values by certain agents of the economy. Along with this, each agent of the economy is, at the same time, a carrier of a certain value, which is part of the assets of this economy. It is clear that such a statement is a proposition, the validity of which had to be previously proven; the theory of personification did not provide such evidence and accepted the position it created as something obvious that did not require evidence. Thus, the theory of personification is a pure metaphysical theory. As a result, bookkeeping in its development passed through the stage of a metaphysical state, as there was a stage in the development of bookkeeping in which this science used metaphysical theories.

The next stage in the development of bookkeeping is the stage in which all explanations of technical accounting techniques are carried out based on scientifically based provisions that have the character of the laws of nature. The current state of accounting as a science is characterized by the fact that it has abandoned the teachings of the metaphysical order and bases its theoretical constructions on the teachings of the laws of nature.

Thus, all accounting theories can be divided into two main groups: 1) metaphysical accounting theories and 2) positive accounting theories. The category of metaphysical accounting theories includes various legal or personalistic theories with all the nuances given to them by individual authors. Positive accounting theories include those that, in their constructions, proceed from the essence of economic activity and the objects of this activity. Positive accounting theories include the theory of two series of accounts, the theory of Fabio Besta, the theories of D. Jermani and J. Dumarshe, exchange, balance, mathematical, and others. Accounting theories, which are based on the study of the ideological essence of economic transactions, stand somewhat apart; these theories, in their constructions, proceed not from the laws of nature but from the ultimate essence of economic transactions; the teachings of L. I. Homberg and G. Cerboni [10, p. 19]. Thus, Professor O. Galagan classified accounting theories regarding teachings that explain this type of activity from specific laws accepted by humanity. In his opinion, the highest among these accounting theories were the laws of nature. This classification can be shown in Table 1.

To the metaphysical accounting theories, Professor O. Galagan includes the works of Luca Pacioli, who “suggested considering each account as a debtor or creditor concerning the firm owner. Therefore, each operation should be recorded as receiving any value by one account and issuing another value by any other account” [10, p. 20].

Later (in 1564), the Italian scientist F. Villa developed the theory of personification of accounts, which marked the beginning of legal theory. “Each economic transaction always involves the receipt and delivery of certain economic values; the receipt of certain valuables must be recorded on the debit account of the custodian agent who accepts these values, the issue of values must be noted on the credit of the account of the custodian agent who issues these values. Every business transaction must be recorded on the debit and credit of separate accounts. In this way, F. Villa derives the recording method known to us under the double recording method” [10, p. 21].

Table 1

<table>
<thead>
<tr>
<th>№</th>
<th>Types of theories</th>
<th>Essence</th>
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<tbody>
<tr>
<td>1</td>
<td>Metaphysical accounting theories</td>
<td>At their core is a reflection of the activity of economic agents</td>
</tr>
<tr>
<td>2</td>
<td>Positive accounting theories</td>
<td>They come from the laws of nature and the activity of business associations</td>
</tr>
<tr>
<td>3</td>
<td>Philosophical accounting theories</td>
<td>They come from the ultimate essence of business operations</td>
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Source: constructed by the author
As we can see, in the Italian accounting school of that time, all accounts were associated with the activities of agents of the economy, which is characteristic of theories of personalistic and legal directions.

Legal theory is also widespread in the teachings of French accountants. R. Delaporte divided accounts into three groups: “1) owner’s accounts; 2) accounts of various kinds of values; 3) accounts of correspondents” [10, p. 22]. The French author Moutier divides all accounts into two groups: 1) accounts of the owner and agents and 2) accounts of correspondents. Another French researcher – H. Faure, believed that regardless of the origin of the name, all accounts represent certain persons – the owners of certain objects and property. Thus, “all these theories are based on the statement that every agent of the economy is always the custodian of certain values; such a statement is a proposition requiring evidence. ... A characteristic feature of accounting theories of the personalistic direction is that these theories are based on some hypotheses, the correctness and reality of which had to be proven in advance, which is precisely not carried out by individual authors who are supporters of these theories. Thus, accounting theories of the personalistic direction are, in fact, metaphysical theories. Using these theories in accounting is a sign that accounting at the time was experiencing an early period of scientific development” [10, p. 25–26].

Positive accounting theories are the most popular and the most widespread.

The theory of two series of accounts is based on the principle of duality. This principle implies that the property of each firm must always be considered from two points of view: from the point of view of the constituent parts of this property and the point of view of the entire property as a whole. The generally accepted in accounting science balance equation (Asset – Liability = Capital) has the economic meaning that the property of any firm can always be determined in a double order, namely: 1) by deriving this property, taking into account the components of the asset and liability of the firm (Asset – Liability) and 2) by calculating the accounting capital of this firm (Capital).

The theory of two series of accounts constantly improves science, particularly in the studies of Italian Professor Fabio Besta. The central premise of the teaching of F. Besta is that the object of entries in the accounts is not the economic objects themselves but their value; hence his teaching is called the “value theory of accounting”. “The total value of the values invested in the economy in the teaching of Professor F. Besta is called the fund, or the capital of this economy. As the total value of all the values invested in the economy, this fund must consider both as a whole and in terms of its parts. He calls those individual parts into which the fund of the economy is divided direct elements. Professor F. Besta calls the fund as a whole and the value changes of this fund production elements. To record changes in the value of constituent parts of the fund, F. Besta suggests using a special group of accounts, which he calls direct accounts. Therefore, the number of direct accounts, according to his terminology, can include all those accounts that are opened for separate parts of the asset and liability of the economy; he establishes the order of records of operations on direct accounts in the same way as individual authors who adhere to the theory of two series of accounts do” [10, p. 36–37]. Professor F. Besta’s teaching is only a variant of the theory of two series of accounts; the main difference in his teaching is that the goals and tasks of accounting were defined by him much more broadly than by other researchers.

The further development of theories based on double entry and the doctrine of two series of accounts is traced in the works of D. Jermani. In the works of D. Jermani, the accounting theory of the positive direction is justified by the economic doctrine of the rational functioning of the economic entity. Conventionally, he designates this direction as the theory of minimum accounting efforts. D. Jermani used the teaching of E. Mach about the “law of minimum effort” and proved that double entry (the theory of two rows of accounts) allows for the informational provision of management and calculation of financial results of the enterprise with minimal effort. According to D. Jermani, the object of accounting is the entire set of operations performed in any economy. All objects of economic activity, the change in values of which are tracked on separate accounts, can be, according to the teachings of J. Dumarshe, divided into three groups. The first group includes all those objects that belong to the firm owner by right of ownership. The totality of these objects is an asset of the firm; the second group includes all those objects, the totality of which is the firm’s liability. Finally, the third group includes all objects that represent the firm’s net capital, that is, that part of the property that remains at the disposal of this firm after covering all its obligations. Having divided
all the firm's properties into three groups, the scientist claims that each can be considered a certain series, and therefore he believes that each group can be represented in the form of a special account [10, p. 44]. For convenience in practice, the scientist suggested dividing the accounts of assets, liabilities and net capital into constituent parts.

Professor O. Galagan also brought the exchange theory of accounting to the positive accounting theories. Its authors were mainly Russian scientists of the late XIX and early XX centuries – E. Sievers and M. Blatov. The exchange theory is based on the statement that every economic transaction is exchanging one value for another. The exchange theory's peculiarity is that the basis of its constructions is the concept of the account. According to the exchange theory, an account is a special table in which transactions with any specific group of values are recorded. Accounts in the accounting practice are opened as needed; periodically, based on records on the accounts, the firm's balance sheet is drawn up. Thus, according to the exchange theory, the balance of the economy is always compiled based on entries in the accounts and cannot be performed in the absence of accounts and entries on these accounts. So, the exchange theory starts from the account concept, and the account goes to the balance. In this way, the exchange theory differs significantly from other accounting theories, which in their concepts proceed from the balance sheet as the main position of accounting and build accounts based on the balance sheet. In contrast, the exchange theory builds the balance sheet based on accounts [10, p. 50]. Exchange theory has not received sufficient development because it does not explain the order of records on accounts of certain amounts of money. The formulation of the order of entries in the accounts in mathematical equations proves that this order is firmly established and this makes it possible to proceed in the construction of theoretical statements from the fact of changes in individual parts of assets and liabilities as an unbreakable and genuine phenomenon.

The teachings of A. Mazetti is associated with mathematical theory. The mathematical theory builds all its provisions based on the basic fact that there are always positive and negative elements in the activity of a particular firm. Positive elements are the initial amounts of individual parts of the asset and all increases in these amounts; among the positive elements, the mathematical theory includes all the reductions of individual parts of the firm's liabilities. The mathematical theory considers the sums of individual parts of the firm's liabilities, all increases in these amounts, and the decrease of individual parts of the firm's assets to be negative elements. According to mathematical theory, the task of accounting is to note all the positive and negative elements that take place in a particular firm's work process. In order to find out the economic nature of certain positive and negative elements of the firm, it is necessary, according to the teaching of mathematical theory, to use calculations.

Mathematical theories reject researching the economic and legal nature of economic goods and individual economic transactions. All the rules for performing entries on accounts can be presented as mathematical equations, individual members of which automatically show the order of entries on accounts of certain amounts of money. The formulation of the order of entries in the accounts in mathematical equations proves that this order is firmly established and so precisely justified that it can be expressed as neat and complete mathematical equations. Thus, the authors of mathematical theory conclude that accounting, as a theoretical and at the same time an applied discipline, has already reached a high level of development. They believe that the degree of development of each science is determined by the extent to which the introductory provisions of this science are solid and to what extent these introductory provisions can be represented in the form of mathematical formulas and equations. Not being widely distributed, the mathematical theory found its place only in the writings of individual Italian scientists.
Professor O. Galagan considered several mathematical theoretical studies with a philosophical aspect as separate group. Among them: the teaching of Giuseppe Cerboni (1827–1917), which was called logismography, and the teaching of Lev Ivanovich Homberg (1866–1935).

Since the economy is a social organism, according to G. Cerboni, studying the economy should be the same as studying any other social organism. In his opinion, each social organism is studied in such a way that, first of all, those internal processes are studied and learned, the totality of which determines the life of this organism as a whole. This method of studying any social organism is, according to G. Cerboni, the only correct one because all the external manifestations of the life of any social organism are only the consequences of those internal processes that take place inside this organism and which, in most cases remain invisible to researcher G. Cerboni, writes that external phenomena in a social organism are only the consequences of internal changes occurring in this organism.

The study of the life and activity of the economy is the task of accounting; therefore, according to the teaching of G. Cerboni, the object of accounting is all those operations with the help of which the work of an individual firm is directed and regulated.

According to the teachings of L. I. Homberg, the task of the science of accounting is the study of the economic activity of a unit firm; as a result of such a study, the accounting science must obtain certain written data about the work of this or that firm, with the evaluation of these data in monetary currency. Thus, according to L. I. Homberg, accounting science is the science of the economic activity of this or that firm's unit. Hence L. I. Homberg considers it necessary to call accounting science not accounting but economics. The exact meaning of the name “economics” characterizes the science of researching the economic activity of individual enterprises [10, p. 66]. Original in the teaching of L. I. Homberg is that “the author considers the object of the accounting discipline not the actions of people and not certain movements of economic values, but certain economic phenomena as factors that do not depend on human will” [10, p. 69].

Conclusions. The research results show that over five centuries (XV–XX), accounting grew from a craft and art to a scientific peak due to the formation and development of own theories. The formation and development of accounting science in the theoretical aspect in this period significantly outstripped other components of economic science. The scale and depth of the development of accounting science in this period can be demonstrated by highlighting the nine most vivid theories after the works of Luca Pacioli and Benedetto Cotrugli (Table 2).

<table>
<thead>
<tr>
<th>№</th>
<th>Theory</th>
<th>The main known author of the theory</th>
<th>Contribution of the theory to the accounting science development</th>
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<tbody>
<tr>
<td>1</td>
<td>Theories of personification (legal theories)</td>
<td>F. Villa and other</td>
<td>– Personification of accounts;</td>
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<td></td>
<td></td>
<td></td>
<td>– Use of operational (transit) accounts.</td>
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<td>2</td>
<td>Theory of two series of accounts</td>
<td>J. F. Schar</td>
<td>– Accounting reflects property status;</td>
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<td></td>
<td></td>
<td></td>
<td>– The priority of the balance in relation to the account;</td>
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<td></td>
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<td></td>
<td>– The economic content of management – in capital growth (Asset – Liability = Capital);</td>
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<td></td>
<td></td>
<td></td>
<td>– Algorithmization of operations (nine types).</td>
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<td>3</td>
<td>Value theory of accounting</td>
<td>F. Besta</td>
<td>– Accounting objects are not so much economic objects as their value;</td>
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<td></td>
<td></td>
<td></td>
<td>– Concepts of “funds” and &quot;capital&quot; as invested values;</td>
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<td></td>
<td></td>
<td></td>
<td>– Expansion of accounting tasks:</td>
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<td>1) With the help of technical accounting methods, to provide management and control of the firm;</td>
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<td></td>
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<td></td>
<td>2) Development of control methods as components of accounting tasks: previous, current, next;</td>
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<td></td>
<td></td>
<td></td>
<td>– Development of accounting at the intersection with other sciences.</td>
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Even such a brief overview of the theories of the “golden age” shows that in addition to the development of the so-called “accounting technique” (eight elements of the method), scientists paid great attention to the mission of accounting in society, the expansion of its tasks and functions. It was found that all the founders of accounting theories positioned accounting as an essential component of economic science, the so-called “mind” in managing the firm and the state. The provisions of accounting theories highlighted in the study will substantiate the further development of accounting science on the laws of causality characteristic of other sciences to form an accounting theory relevant today.

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