
TESIS DOCTORALES / DOCTORAL THESES

THE DEVELOPMENT OF DOUBLE-ENTRY BOOKKEEPING IN THE 13th-15th CENTURIES**Marina Gurskaya**

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*Date: November 30, 2022**Saint-Petersburg State University, St. Petersburg, Universitetskaya (Russia).*

The introduction and spread of bookkeeping between the 13th and 15th centuries were a real technological innovation. The application of accounting methods and the correct maintenance of records literally changed the way in which business was conducted. It made it possible to control available assets, to make significant savings in administration, to accurately assess the results of activities and investments, and thus to facilitate a more efficient allocation of resources. For the company, accounting was a functional tool for increasing productivity and thus generating greater profits.

Accounting information, dating back to the birth of basic accounting methods and practices and that miraculously preserved to the present day, provides a wealth of economic and historical information. The accounting records of a company are a fragment of economic history, due that the company was integrated into the framework of the economic life of the region. The information contained in the books makes it possible to reconstruct data on business partners - contemporaries of the company, prices, exchange rates, the value of money and its equivalents, production processes and secrets, trade routes, business traditions and much more, thus serving as historical artefacts.

At the local level, accounting is one of the main sources of historical reconstruction of economic events related to the company's activities. The accounting information generated makes it possible to judge the way in which companies have achieved their objectives or the obstacles

they have encountered.

Despite this, many aspects of accounting practice have not been thoroughly studied, and publications based on the results of research using archival documents are unfortunately often descriptive in nature, making it impossible to fully assess the contribution of medieval accountants to the creation of modern accounting methodology.

In this context, a study was carried out, the results of which are proposed in this thesis, with the aim of analysing in detail the accounting techniques and procedures that emerged during the development of commercial and industrial activities in medieval Italy, a territory recognised as the birthplace of double-entry bookkeeping.

The aim of the thesis is to propose the author's conception of the characteristics of the accounting procedures that formed the basis of the double-entry bookkeeping methodology used in the period from the thirteenth to the fifteenth century.

In order to achieve the defined goal, the **following objectives** were required, which were addressed and reflected in the four chapters of the thesis:

- Study of scientific literature sources that give an idea of the genesis of accounting in general, double entry and double bookkeeping, as well as social, political, economic factors that had a direct influence on their emergence and development.
- Creation of a digitised electronic archive of medieval manuscripts as the main element of the information and empirical base of research.
- Application of the method of conducting research of archival materials – block diagram logical-analytical modelling (reconstruction) for the study medieval accounting complexes of ledgers.
- Study of the peculiarities of the economic activity of medieval companies: management structure, application of the accounting period principle and accounting instruments, organisation of bookkeeping and ledgers, procedures for the generation, identification and distribution of profits.
- Identification of the preconditions for the emergence and study of the stages of development of the main methodological techniques and accounting procedures (amortisation and depreciation of assets, procedures of formation and distribution of the financial result, creation and use of profit reserves, preparation and submission of reports to the remote owner, etc.) which originated in the 13th-15th centuries and acted as a prototype of those used today.

The main method for detailed study of the system of accounting ledgers and reflection in

them of economic operations and results of the conducted activity was the method of block-chart logic-analytical modelling (reconstruction) invented in the scientific school of the Kuban State University. This method creates a block diagram of an accounting complex consisting of a number of ledgers used for a given time period. Application of this method allows to compare the results of researches by time, territories, forms of ownership, as well as to identify and analyse the features of early accounting systems.

The information and empirical base of the study was formed on the basis of the results of research of scientists devoted to the theory and history of economics and accounting. When studying the socio-economic situation of the period under study, which influenced the development of accounting processes, special attention was paid to the published chronicles, annals and treatises of contemporaries: Villani (last entry 1348), Pitti (last entry 1429), *La Practica della mercatura* (The Practice of Trade) by Pegolotti (1330s-1340s) and the literary works of Dante Alighieri (1265-1321), Petrarch (1304-1374), Boccaccio (1313-1375), and Macchiavelli (1469-1527).

The factual material for the study came from archival material collected in libraries and archives in Italy: photocopies of a fragment from the General Ledger of the Florentine Bank (1211) and its translation by Pietro Santini (1887); a fragment from the Ledger of the Florentine Bank (1211) and its translation by Pietro Santini (1887). The ledger of debtors and creditors of Gentile de' Sassetti and his sons (*Libro del dare e dell'avere di Gentile de' Sassetti e suoi figli*, 1274-1310), the second ledger (*Libricciolo di crediti di Bene Bencivenni (Secondo)* 1276-1296) and the personal ledger of Francesco del Bene Bencivenni (*Libricciolo personale di Francesco del Bene Bencivenni con intestatura anteriore all'anno*, 1300), The ledgers of Renieri Fini and Brothers (*Libri del dare e dell'avere di Renieri Fini de' Benzi e fratelli da Figline alle fiere di Sciampagna*, 1296-1305) and Giovanni Farolfi & Company (1299-1300), the ledgers of Francesco del Bene (1318-1324), the ledger of the Municipality of Genoa *Cartullarium Massariorum* (1340). Special attention is given to the best-preserved sets of ledgers of the enterprises and companies of Francesco di Marco Datini di Prato's in Avignon (1363-1411), Pisa (1382-1410), and Barcelona (1393-1411), the direct study of which has allowed us to give the most accurate characterisation of the accounting procedures that formed the basis of the double-entry bookkeeping methodology used in the period under study.

The study of the archival documents, their selection for detailed analysis was carried out, first of all, on the basis of the results of previous studies presented in the scientific literature, with

the subsequent selection of the most important parts of the accounting register using the method of logical-analytical modelling (reconstruction).

The scientific novelty of the research consists in the development, based on the study of unique archival materials of Italian ledgers of the 13th-15th centuries, of the characteristic of the development of double-entry accounting in the period under study as a tool of arithmetical modelling of economic life, which allowed to improve the methods of evaluation of management objects and disclosure of factors forming them. In particular:

- It shows the influence of political and socio-economic factors on the development of medieval business and its accounting procedures, and the role of religious and scholastic influences on the world view of the merchant.

- The separation between money as an accounting object and money as an accounting valuation tool, characteristic of the period under study, is demonstrated.

- The example of the ledger of the Genoese commune (1340) shows that the economic practice of the time was to evaluate the results of economic operations on the basis of the factors of the time value of money.

- The multi-level system of accounting registers, which ensured the implementation of the method of double accounting in economic practice, is characterised by.

- The facts of reflection in the system of double accounting of changes in the value of real estate with a long-term nature of use are shown on the example of ledgers of trading companies and enterprises.

- The methods of registration and assessing of the consequences of economic facts on the accounts in order to reflect the factors affecting the formation of the financial result of activity are disclosed.

- The application of the double-entry method is presented to reflect in the accounting of profit or loss as a derivative of a complex of factors that form the result of the economic life of the enterprise.

- The practice of profit distribution is disclosed on the basis of the data of the accounting registers and on the basis of the requirements of the constituent documents.

- The methods used to create reserves from profits to cover unforeseen expenses and liabilities that may arise in future periods are described.

- Procedures for informing interested users of accounting data on a sustained periodic basis (reporting period concept) are disclosed.