



## HISTORY OF ACCOUNTING FROM THE ANCIENT CIVILIZATIONS TO THE OTTOMAN EMPIRE AND REPUBLIC OF TURKEY

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### Abstract

The aim of this research is to examine the birth of accounting in ancient civilizations, then its history in the Ottoman Empire and the Republic of Turkey, as well as accounting's development process until today. Discussions about where accounting was first born and invented still continue, and there is no universal consensus. However, there are different opinions about the fact that accounting first appeared in ancient Egypt, Persia, Mesopotamia, Babylon, Assyria, Sumer, China, India or Islamic civilizations. Some sources, on the other hand, have a completely different point of view and show the *Summa de Arithmetica, Geometria, Proportioni et Proportionalita*, written by the Italian mathematician Luca Pacioli, as the starting point of accounting, which includes the double-entry bookkeeping technique. In the Ottoman Empire Period, the Ladder (Merdiban) Method, which is an accounting record culture, was applied. In fact, the related method was also used by the Seljuks and İlkhans in Anatolia previously. Concerning the Republic of Turkey period, accounting developed parallel to the industrialization and globalization attempts.

**Keywords:** History, Accounting, Ottoman Empire, Turkey, Ancient civilization.

**Jel Code:** M40, M41, M49

### *Eski Medeniyetlerden Osmanlı İmparatorluğu ve Türkiye Cumhuriyeti'ne Muhasebe Tarihi*

#### Öz

Bu araştırmanın amacı, eski uygarlıklarda muhasebenin doğuşunu, ardından Osmanlı İmparatorluğu ve Türkiye Cumhuriyeti'ndeki tarihini ve muhasebenin günümüze kadar olan gelişim sürecini incelemektir. Muhasebenin ilk nerede doğduğu ve icat edildiği konusundaki tartışmalar halen devam etmekte ve evrensel bir fikir birliği bulunmamaktadır. Ancak muhasebenin ilk olarak eski Mısır, İran, Mezopotamya, Babil, Asur, Sümer, Çin, Hindistan veya İslam medeniyetlerinden birinde ortaya çıktığı konusunda farklı görüşler bulunmaktadır. Bazı kaynaklar ise tamamen farklı bir bakış açısına sahiptirler ve İtalyan matematikçi Luca Pacioli tarafından yazılan ve çift taraflı kayıt yöntemini içeren *Summa de Arithmetica, Geometria, Proportioni et Proportionalita* kitabını muhasebenin başlangıç noktası olarak gösterirler. Osmanlı İmparatorluğu döneminde ise bir muhasebe kayıt kültürü olan Merdiven Metodu uygulanmıştır. Nitekim, ilgili yöntem daha önce Anadolu'da Selçuklular ve İlhanlılar tarafından da kullanılmıştır. Türkiye Cumhuriyeti dönemine ilişkin olarak muhasebe, sanayileşme ve küreselleşme girişimlerine paralel olarak gelişmiştir.

**Anahtar Kelimeler:** Tarih, Muhasebe, Osmanlı İmparatorluğu, Türkiye, Eski medeniyet.

**Jel Kodu:** M40, M41, M49

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## 1. Introduction

Accounting is a branch of science concerned with the systematic recording, classification, summarization, reporting, analysis and interpretation of transactions and events related to money (Kızıl & Kızıl, 2007). Accounting is also described as the measurement, processing, and communication of financial and non-financial information about economic units like businesses and corporations (Accounting Research Bulletins No. 7 Reports of Committee on Terminology Report, 1940). Accounting is also known as the language of firm (Lane, 2013). Accounting is an information system, which measures the outcomes of a firm's economic activities and communicates the mentioned data to various stakeholders covering investors, creditors, management, and regulators (Foster School of Business, 2013).

Ancient civilizations existed in a time span starting from the writing and recording of human history until the late antiquity. The recorded human history is about 5.000 years, starting with the Sumeria cuneiform script. The stone age, bronze age and iron age are all included in the period of ancient civilizations (Kipfer, 2000).

The Ottoman Empire is also known as the Turkish Empire in history (Sykes, 1916). It controlled a large territory including Southeast Europe, Western Asia and Northern Africa between the 14th and early 20th century. It was founded at the end of 13th century in Söğüt by Osman I (Finkel, 2006). The Ottoman Empire ended the Byzantine Empire period with the conquest of Istanbul by Mehmet the Conqueror in 1453 (Quataert, 2005). Ottoman Empire was strongest through the period of Suleiman the Magnificent. It lost power because of falling behind in terms of military, technology and modernization in the late 18th century and 19th century (Aksan, 2007). After losing the World War I, some territories in the Middle East were also lost (Findley, 2010). Still, the Ottoman Empire is known and recognized as one of the strongest of all empires through the World history.

The Turkish War of Independence was won against the Allied Powers and this ended the Ottoman Empire. Abolition of the Sultanate was announced on November 1, 1922. Then, Treaty of Lausanne was signed on July 24, 1923. The republic was announced on October 29, 1923 which officially gave a start to Republic of Turkey. This was followed by the reforms initiated by Mustafa Kemal Atatürk. Turkey is currently a regional power and industrialized country, located in a strategic location. It is also classified as an emerging economy (Bank & Karadağ, 2012).

Accounting emerged as a response to several needs, more specifically meeting the daily needs. Although the subject of which civilization first invented accounting has been discussed by many accounting historians, there is still no definitive information on this subject. However, the birth of humanity is also accepted as the time of the emergence of accounting. It is assumed and accepted by some scientists that accounting was applied for the first time in civilizations where writing and numbers were used. According to some scholars, accounting is the oldest of all professions (Jensen, 2022).

This study has been prepared with the aim of emphasizing that first of all learning its history is a condition for the full adoption and understanding of accounting, and with the idea that it will facilitate the learning, understanding and development of the profession. Learning the history of a subject or branch of science as a priority helps us to understand how the subject or branch of science developed. At the same time, it provides a comparison of the past and the present situations.

Research continues with the Literature Review section after the Introduction section. Later, Accounting in Ancient Civilizations section follows. After that, Accounting in Turkish and Islamic Civilizations section is discussed. Then, Accounting in the Ottoman Empire Era section is presented. Thereafter, Accounting in the West through Middle Age, New Age and Modern Age section is shared. Next, Accounting in the Republic of Turkey Era section takes place in the study.

## **2. Literature Review**

Napier's research in 1989 titled "Research Directions in Accounting History" emphasized the fact that, accounting is sometimes criticized for being an illegitimate area for historic studies. However, findings were reflecting the opposite. It was found that, there had still a wide and growing potential for historical accounting studies (Napier, 1989).

Carmona, Ezzamel & Gutiérrez provided an overview of the achievements of modern accounting history in their article titled "Accounting History Research: Traditional and New Accounting History Perspectives" published in 2004. Here, new and traditional accounting dates were compared in four dimensions: Origin and genealogy, role, source and historical tools of accounting. The differences of these dimensions compared to traditional and modern accounting history and the contribution of modern accounting history to accounting history had been observed. Although traditional and modern accounting approaches were different from each other, it had been argued that they illuminate each other's research paths. Ultimately, it was emphasized that modern accounting needs to broaden its national/local focus areas to truly address comparative accounting history studies. However, it had been concluded that research will have the ability to find richer evidence and accordingly contribute to the discipline of accounting history (Carmona et al., 2004).

Gökgöz's paper in 2011 titled "Tarihsel Perspektifte Muhasebenin Doğuşunu ve Gelişimini Etkileyen Faktörler (The Factors Affecting the Emergence and Development of Accounting in Historical Perspective)" aimed to analyze the factors which were effective in accounting's birth and development. According to this research, the factors that provided the birth and development of accounting were basically commerce, religion, law, state, science and technology. As a solution to the complexity that emerged with the birth and development of trade, keeping accounting records, recording commercial transactions as a command of religions, applying to accounting records in the execution of law, the necessity of a record in the collection of taxes and spending the tax collected by the state, and the use of

technological developments under the leadership of science in accounting led to the development of the science of accounting (Gökgöz, 2011).

The research titled "Accounting in Ancient Times", published by Provasi & Farag in 2013, was conducted to examine the studies of scientists doing research on accounting in the context of ancient civilizations. It mentioned the oldest texts (3200-3100) dated to the end of the 4th millennium B.C. These were series of pictogram marks carved on clay tablets found at the monumental temple site of the Iraqi city of Uruk dell'Eanna, directly representing the predecessors of cuneiform writing. The article traced thousands of years of history of how records were kept and used, and the identification, demonstration and analysis of conflicting differences between different accounting practices. It had been observed that accounting was developed in parallel with the economic, political and social development of the population. Environmental conditions and type of economic organization were found to be the most contributing factors to the development of knowledge accounts (Provasi & Farag, 2013).

Edwards' research in 2013 titled "A History of Financial Accounting (RLE Accounting)" presented the history of financial accounting from earliest times. Corporate accounting developments since the Industrial Revolution were indicated. The accounting practices of British companies earlier and later were also discussed. The reasons for changing accounting practices were also shared (Edwards, 2013).

Carnegie's paper in 2014 titled "The Present and Future of Accounting History" presented some personal ideas, suggestions and thoughts on the recent published accounting history. The research was qualitative and it was written based on the essay methodology. Possible future developments and study areas for accounting were also underlined. It was also mentioned that, literature on accounting history was getting richer (Carnegie, 2014).

Kızıl, Akman, Zorkalkan & Türkmen's article in 2015 titled "Muhasebenin Tarihine Küresel Kapsamda ve Türkiye Kapsamında Vergisel Bir Bakış (A Taxational Overlook to the History of Accounting from a Global and Turkish Extend)" discussed accounting's journey in time. In this study, the history of accounting had been examined in detail in relation to tax in the global perspective and the perspective of Turkey. In the research, the reasons that triggered the events defined as turning points in the history of accounting in the world and in Turkey were discussed by considering the developmental stage of accounting chronologically. At the end of the study, a general evaluation was made and comparisons were run between the global scope and Turkey. The methodology of the study was literature review. According to the results of the research, accounting understanding in Turkey has made great progress both theoretically and practically in recent years. However, there are still some shortcomings and issues that need improvement (Kızıl et al., 2015).

Walker's research in 2016 titled "Revisiting the Roles of Accounting in Society" had the motivation for facilitating new accounting research. Also, interconnections between accounting and the

society were focused. According to the paper, understanding the roles of accounting in society was a significant issue (Walker, 2016).

Fowler's & Keeper's study in 2016 titled "Twenty Years of Accounting History, 1996-2015: Evidence of the Changing Faces of Accounting History Research" analyzed the history of accounting research. It was found that, early research related to accounting history were mostly conducted by male researchers working for Anglophone universities. A great majority of them were researching private sector accounting. Also, the diversity of accounting researchers was not rich. However, according to the study, recent research was now indicating the opposite. Global and gender representation was now better for the accounting research condering the accounting history (Fowler & Keeper, 2016).

Kızıl & Kocur published a paper in 2017 titled "Antik Çağlarda Muhasebe ve Dinlerin Muhasebeye Bakış Açısı (Accounting in Ancient Times and Religions' Perspective of Accounting)". In this study, how records are kept and used, and the definition and indication of conflicting differences between separate accounting practices were discussed. The people and systems that contributed to the management and implementation of accounting in ancient civilizations were emphasized. Finally, a number of religions had been evaluated within the scope of religions' perspective on accounting (Kızıl & Kocur, 2017).

Koç's study titled "Muhasebenin Tarihsel Gelişimi - Doğu ve Batı (Historical Development of Accounting - East and West)" and published in 2017 evaluated the historical development of accounting in the axis of east and west. In this research, starting from the first findings of human beings in the history of accounting, where and how the need for record keeping arose and how it developed was examined in a chronological way, and important contributors as well as significant events that led to the development of accounting were briefly emphasized. Based on this paper, it was determined that keeping accounts in human history was even older than the birth of trade. Therefore, the history of accounting was as old as economics. Accounting emerged as its name and rules were not clearly defined when it started to work on providing, protecting and consuming the substances that human beings need in order to survive (Koç, 2017).

Kaya's research in 2021 titled "Muhasebe Tarihi (Accounting History)" mentioned that, it was required to analyze the developments in accounting from a historical perspective. According to this study, accounting history also encouraged scholars to consider the interdisciplinary view of accounting and its environmental context. Also, the science of accounting was affected by various factors in the process of its birth and development. Today, accounting covers a very wide area. According to the expression in Alfred Isaac's book named Muhasebe Nazariyesi (Accounting Theory), accounting in ancient times was equivalent to only bookkeeping. However, in today's economy, many implementations and operations exist besides the bookkeeping procedure. Thus, the concept of accounting gradually expanded (Kaya, 2021).

Sholihin and Andari conducted a research in 2022 titled “Islamic Banking and Islamic Accounting in Indonesia: History and Recent Development”. This paper argued that, Islamic banks were different from the conventional ones. Because of this reason, it was stated that Islamic banks in Indonesia required special accounting to run their operations. Development of Islamic banks and the history of accounting was discussed in the study (Sholihin & Andari, 2022).

### **3. Accounting in Ancient Civilizations**

Accounting is thought to be as old as human history (Can, 2007). The birth of the technique of keeping accounts in a primitive way dates back to the ages when the exchange and barter began (Sevilengül, 2003). Thus, it is pretty normal that roots of accounting dates back to ancient civilizations.

Mesopotamian and Ancient Egyptian civilizations were the first to use the writing and number system. Therefore, it is claimed that accounting practices were used for the first time in these civilizations. The first accounting record was made on stone, clay slabs, papyrus and wood. Although accounting is applied in a very wide geography, it always served for the same purpose (Isaac, 1941).

In the transactions included in the first application, accounting is accepted as the purchase or exchange of goods. In 3000-4000 B.C., Sumerian, Babylonian, Egyptian, Ancient Greek and Roman civilizations used accounting systems. These systems differed according to the economic structure of the geography. The first findings on accounting in ancient times show that accounting was not actually limited to a single civilization. Although these civilizations were the beginning of accounting processes and practices, they are far from today's accounting systems and rules. As time progressed, needs, expectations, people's perspectives and technology changed, and in parallel, accounting took its current form (Garbutt, 1984).

The Sumerians existed several centuries before Ancient Egypt was founded. During the archaeological studies carried out between the Tigris and Euphrates Rivers, accounting records drawn on many clay and stone tablets were unearthed. The content of these texts is more about management. The input-output lists of the supplies distributed to the employees can be given as an example at this point. Marks engraved on tablets was created in 1200 B.C. Before this date, the accounting system was symbolized by two tools: Accounting tokens (stones, symbols) and seals. These markers were clay objects that were sculpted by hand and usually in geometric shapes, representing different goods and quantities, such as animals and grains. Icons and seals first appeared in the Neolithic Age. The increasing administrative needs of new urban centers, private activities, the proliferation of craft and the development of long-distance trade led to the search for accounting format. The need for control for workers also arose. Therefore, every event started to be registered with the receipt. These documents were arranged as two copies. The first is to verify that such a service is provided, and the second is a document that forms the basis of accounting. Also, the Principle of Duality prevailed in Sumerian accounting. The Principle of Duality is important because it primarily summarizes the cost incurred for

goods and services produced and then the reduction in certain balance sheet items. Because, these form the basis and building blocks of the Principle of Duality. Also, in the Principle of Duality, one side is about recording temple goods given to pay salaries or other expenses, and the other side is about recording changes in goods produced by agriculture, livestock, fisheries, and tribute. Principle of Duality in Sumerian Accounting is presented below in Table 1: (Provasi & Farag, 2013)

**Table 1.** *Principle of duality in sumerian accounting*

| Cost of Production of Goods and Services | Equals<br>(=) | Variation of the Equity Component (Inventory of the Temple) |
|--|---------------|---|
|--|---------------|---|

**Source:** Provasi and Farag 2013

In ancient Egypt, many documents were discovered regarding the contributions made to the state treasury, money paid to workers and officials, as well as temple account records. In ancient Egypt, it is stated in the sources of accounting history that the officials called clerks were considered to have great power, and they were the people who were obliged to know some management methods besides reading and writing, and also to make accounts and keep books. Accounting was well developed in ancient Egypt. Clerks had a simple handwriting devoted to home and business economics. They had to know both how to calculate and keep a book very well. The scribes recorded their accounts on papyrus. The papyri were light and useful, but less durable than stone and clay tablets. Before chronological records, they were prepared in drafts. The knowledge of accounting or keeping accounts was seen as an indispensable necessity for the clerks in the state treasury, in private fields of activity and in temples. It is determined that the clerks also carried out a kind of budget application by making estimations for the temple needs and took their place in various sources. In ancient Egypt, accounting had a big role in terms of organization of work and labor discipline. Accounting in that era functioned as a regime of control and investigated the achievement of previously set targets. Thus, accounting was actually one of the leading factors in the civilization of ancient Egypt (Hiçşaşmaz, 1970; Ezzamel, 2004).

The land in Egypt was divided metrically to people. Agricultural crops and tax calculations were made and recorded, also experienced engineers and accountants were appointed to fulfill these duties. Some accounting historians believe that, the first accounting records belong to ancient Egypt in the 4th century B.C. It was stated that the records were recorded on papyri. It was also stated that, records for inventory purposes were made on these papyruses. In order to control and inspect the goods, it was mentioned in the sources that perishable goods such as bread and commercial goods like silver were recorded and thus inventory and inspection were carried out simultaneously. According to some research, those who kept the records even resorted to fraudulent transactions by deviating from some artificial ways (Hiçşaşmaz, 1970; Stevelinck, 1985).

Accounting in the ancient Greeks was advanced, considering other civilizations in that era. Some historians believe and claim that temples were the first organization to need accounting. Just like

in Ancient Babylon and Egypt, offerings made to the gods in parallel with their beliefs were recorded on marble or limestone tablets. In the accounting records kept in some temples, information was obtained about the prices of some goods and the wages of the employees, as well as ideas about the prices of some construction materials (Stolowy, 2006).

By 300 B.C., the city of Athens had an audit court of 10 people with the responsibility for checking the city's accounts. Banking in ancient Greece was more developed than in previous societies. Bankers were responsible for keeping the accounting books. They also exchanged money and made loans. They had even arranged cash transfers through affiliated banks in distant cities. In ancient Greece, budget planning was also a significant instrument of accounting and bookkeeping (Özyürek, 2009; Costouros, 1977).

In ancient Rome, government and banking accounts emerged from records traditionally kept by the leaders of families. Earnings and payments of households were kept in the daily book and monthly records were recorded in the cash book called "codex accepti et expensi". These household expenditures were important in Rome, as citizens were required to submit regular statements of assets and liabilities, which were used as the basis for taxation and even the determination of civil rights. There were also high-ranking officials called "quaestor" in Rome, who managed the state treasury and supervised various financial records. Thanks to these officials, detailed controls were made in Rome and thus the balance system was preserved. The public accounts were regularly reviewed by an audit team, and after the officers left office, they were accountable to those who took over and to the Roman senate. The transition to empire partially made it convenient for Rome to generate more revenue to control financial operations and continue wars of conquest. Julius Caesar personally oversaw the Roman treasury and completely overhauled treasury operations during the reign of Augustus. Roman accounting innovations include the use of an annual budget that sought to coordinate the empire's various financial transactions (Smith et al., 1890).

Concerning the far east civilizations, the unwritten recording method called "quipu", also known as "knotted strings", was used in China in the era of ancient civilizations. This recording method consisted of connecting a main string with other strings as stalactites. The number of people in a village or the amount of assets in a warehouse were kept with these strings. The values varied depending on the distance of the nodes from the main string. Sometimes different colors were used to count different objects (Koç, 2017).

#### **4. Accounting in Turkish and Islamic Civilizations**

Accounting practices in ancient Iran appear as the payment of wages sometimes with agricultural products and sometimes with money. It is found in the sources that have survived to the present day that the payments made to the workers were done with documents and that the workers received their money from the cashier with these documents. Also, a payment schedule was prepared



for these payments. In addition, the audit function of accounting was used in meeting the nutrition and clothing needs of the Persian army in 500-400 BC (Kaya, 2021).

In verses 282 and 283 of Surat al-Baqara of the Qur'an, the following statements are made: "You who believe! Write it down when you owe for a certain amount of time. Have a scribe among you write it correctly. The scribe should not refrain from writing as Allah taught him, let him write. Let the debtor also have it written down. If the debtor is not educated or weak, let his guardian directly have it written down correctly. Witnesses should not hesitate to testify when called. Whether small or large, do not be lazy to write the debt along with its duration. This is more just in the sight of Allah, stronger for witnessing, and the most accurate so that you do not have doubts. However, if the shopping you have made between you is a cash and current trade, there is no sin in not writing it down. Keep a witness when you shop. Do not cause harm to the writer or the public. If you do harm, it will undoubtedly mean that you have gone astray. Fear Allah. Allah teaches you these. Allah is all-knowing (Qur'an, 632).

In Kutadgu Bilig, written by Yusuf Has Hacib in 1070, the clerk is described as a good and honest person. He should not run after money, his demeanor and character should be reliable. He must also be smart. All kinds of transactions should be recorded on the paper (Koç, 2017).

Scorgie claimed that the development of accounting stemmed from the Arab conquerors (Scorgie, 1994). This view was strengthened by Solas and Otari, who focused on government accounting practice in the Near East during the II. Han Dynasty (1120-1350). His studies focused on the Ottoman Empire. He argued that accounting was practiced in the Near East and was developed independently of the accounting practices used in the West (Solas and Otari, 1994).

## **5. Accounting in the Ottoman Empire Era**

The Ottoman Empire had very large lands and it also had a strong central authority. The reason for this was that the earnings of each group, from the farmers living in the village to the merchants dealing with interregional trade, and from there to the men dealing with small-scale trade, were recorded in various books with their own methods. The reports concerning these were then sent to the Ottoman Empire. Thus, the Ottoman Empire could determine in a short time the amount and price of products manufactured, and take the necessary decisions in a short time. The Ottoman Empire could also detect how much population was located in each village and in each status, which of the villagers had how much land, which of them were landless (İnalçık, 2009).

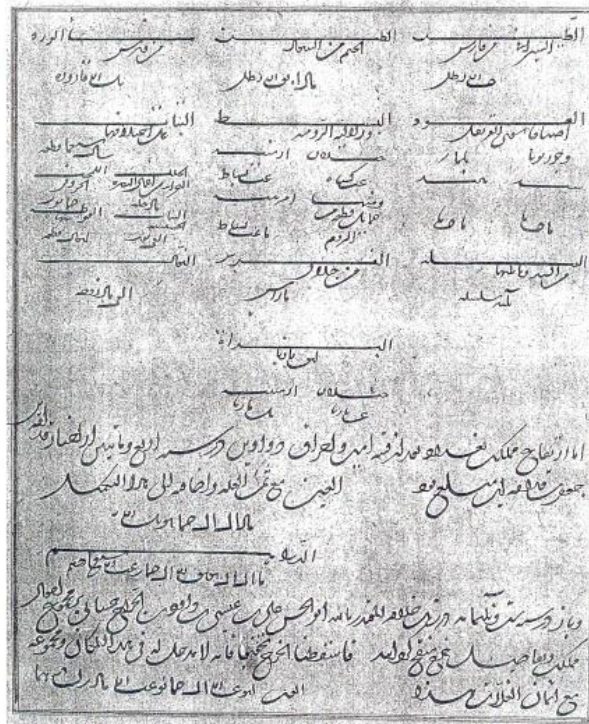
The Ottoman Empire was using the Ladder (Merdiban) accounting method, which was actually used previously by the Abbasids, İlkhaniids and Seljuks in Anatolia. The word "Merdiban" has its roots from the Persian language. It means "Ladder" or "Staircase". The "Merdiban" accounting method was also called as the "Muhasebe Usulü" by Ottomans. The mentioned technique was very useful for recording tax payments and liabilities (Napier & Haniffa, 2012).

First known examples of the Ladder (Merdiban) accounting method were presented by Kramer in 1876 and 1888 in Vienna. Kramer covered accounting records of the Abbasid’s daily revenue and expenditures in his book dated 1888. Figures 1 and 2 below shows the records of state revenues recorded in the Ladder (Merdiban) accounting method belonging to Harun Al-Rasheed of the Abbasids (Kremer, 1888; Elitaş et al., 2008).

The image shows a page from an Arabic manuscript. At the top, there is a header line in Arabic script. Below it, there are several horizontal lines, some with text in between. The main part of the page is a table with three columns and several rows. The text is written in a cursive script, likely Arabic or Persian. The table appears to be a ledger or account book, with columns for different categories of revenue or expenditure. The text is somewhat faded and difficult to read, but the structure is clear.

**Figure 1.** Records of state revenues recorded in the ladder (merdiban) accounting method belonging to harun al-rasheed of the abbasids (1)

**Source:** Kremer, (1888)



**Figure 2.** Records of state revenues recorded in the ladder (merdiban) accounting method belonging to harun al-rasheed of the abbasisds (2)

**Source:** Kremer, (1888)

Ladder (Merdiban) accounting method was used for several years by the Ottoman Empire. It was replaced by the double-entry bookkeeping system in the post-Tanzimat period (1879). Transition to double-entry bookkeeping system was perceived as transition to modern accounting at that time (Darling, 2008).

First examples of Ladder (Merdiban) accounting method was found in the 8th century. It was later adopted and used by other civilizations for their systems. Wars and battles between different civilizations led to the distribution and popularity of Ladder (Merdiban) accounting method (Napier, 2009).

In the Ladder (Merdiban) accounting method, entries and sums are entered from top to the bottom. It is thought that, the mentioned accounting system was used for 1.100 years. Ladder (Merdiban) accounting method was more used for state accounting to run the operations of government. According to some sources, double-entry bookkeeping system was developed as a result of capitalist economy, where the Ladder (Merdiban) accounting method was developed as a result of the statist economy (Elitaş et al., 2008). Definitely, this should not mean that a capitalist economy existed in the Ottoman Empire era. It is emphasized here that, the double-entry bookkeeping system was invented by the Italian mathematician Luca Pacioli. He presented the double-entry bookkeeping system in his book named Summa de Arithmetica, Geometria, Proportioni et Proportionalita. This book was not a pure accounting

book. Instead, it included information concerning arithmetic, mathematics, accounting and even merchandise. That is why it is said that the double-entry bookkeeping system first covered by this book was developed as a result of capitalist economy.

As mentioned earlier, Ladder (Merdiban) accounting method was used until the post-Tanzimat period (1879). Through the Tanzimat period, the Law of “Kanunname-i Ticaret” had come into force in order to regulate the accounting discipline in 1850 (Güvemli, 2012). The book order related to the double-entry bookkeeping system was first included in the “Kanunname-i Ticaret” Law. The law in question continued to be implemented until the first years of Republic of Turkey (Uçma, 2012).

It should be noted that, the formation of the accounting discipline in Turkey began in the 17th century and it was based on Kanunname-i Ticaret. It was a translation of the French Commercial Code, included provisions about the obligations of entrepreneurs. It is known that accounting courses were included in the curriculum of some schools at the administrative level, and "Istanbul Ticaret Mektebi Alisi" was established towards the end of the 17th century. As in Western countries, the subject of accounting remained only within the boundaries of trade accounting or general accounting for a long time in Turkey (Bektöre, 2000; Arıkan, 1996).

In the accounting laws that entered into force in the first quarter of the 18th century, the method of keeping the accounts was emphasized. Also, even limited to accounting periods, certain principles were established on issues such as the inventory and balance sheet. In 1879, the foundation of the Ministry of Finance Inspection Board was realized (Güvemli, 2001).

## **6. Accounting in the West through Middle Age, New Age and Modern Age**

In the middle age, the developments in Europe's bookkeeping efficiency were clearly tied to the history of trade, especially the early Mediterranean trade (Goody, 2002). The development of Mediterranean trade encouraged the advancement of accounting. On a merchant ship in the 12th century, the chief officers were the helmsman (nouclerus) and the ship's clerk (scribanus). The task of keeping records of wages and money paid for transporting goods belonged to the latter one (Lane, 1973).

Luca Pacioli published his book named “Summa de Arithmetica, Geometria, Proportioni et Proportionnalite” in 1494 and devoted a part of this study to accounting subjects. In 1525, Antonio Tagliente published his book named "Limunario di Arithmetica". In 1540, Domenico Manzoni, in his study “Quaderno Doppio”, fully clarified the principles of the double-entry bookkeeping system in terms of both theory and practice. Pacioli's book was translated into English in 1543. It was also translated to many other different languages. These translations contributed to the popularity and spread of Pacioli's study, also known as the Italian Method. Double-entry bookkeeping system spread gradually in Europe in the 16th and 17th centuries, developed by acquiring new characteristics and turned into the model we know today. In these periods, the use of periodicity applications in financial statements was developed. In addition, in the 17th and 18th centuries, it was observed that all accounts and transactions were

personalized and the principles of debit and credit were accepted. In these years, it was seen that the usage area of the double-entry bookkeeping system expanded and it was used in different organizations such as monasteries. Theoretical researches on the expanding accounting fields were started. In the 17th century, it was observed that separate inventory accounts began to be used for different types of assets. Then, cost accounting emerged in the 19th century with the products of the industrial revolution (Koç, 2017).

The industrialization revolution that started with the steam engine increased competition in production. This situation led to important developments in cost accounting. Methods such as strategic costing, activity-based costing, and target costing that emerged in the twentieth century are the products of these developments (Gökgöz, 2011).

## **7. Accounting in the Republic of Turkey Era**

Concerning the first years of the Republic of Turkey, between the years of 1926-1934, well-known professional accountants were given the tax audit authority (Türker, 2006). Meanwhile, starting from the Tanzimat Period until 1928, the French School prevailed in accounting education in Turkey. Because many translations were made from French accounting books. From the beginning of the Republican Period (1923) until the 1950s, the German School dominated both in education and in the field of practice (Aysan et al., 1998). It is known that many German academics lectured and worked in Turkey, especially at Istanbul University, during the specified time period. Even today, there are lecture halls and classrooms named after German faculty members in the Beyazıt Main Campus of Istanbul University. After 1933, Türkiye Sanayi ve Maden Bankası was established in order to form the foundations of the economic state, depending on the principle of statism. Accordingly, the accounting organizations of the factories and their work on cost accounting set an example for businesses active in both the public and private sectors (Avder, 2014).

Law No. 3460 came into effect in order to draw the limits of the activities of state economic enterprises and to regulate their activities in 1938. In this way, the concept of operating budget gained importance. At the same time, businesses started to focus on cost accounting in the specified time period (Karakaş & Aydoğdu, 2014). Then, Türkiye Muhasebe Uzmanları Derneği (Turkish Accounting Professionals Association - TMUD) was established in 1942 (Güvemli, 2001). In 1950s, economic developments and industrialization also deepened the need for accountants in Turkey (Gücenme Gençoğlu & Poroy Arsoy, 2006).

Ankara Faculty of Political Sciences organized the first accounting congresses in 1956-1957. In 1968, the foundation of the chair of accounting auditing was realized at the Faculty of Business Administration of Istanbul University (Uzay et al., 2008). Various developments are observed in the field of accounting from the beginning of the 19th century to the present day. To focus on various issues that led to these developments, first of all, the developments in cost accounting triggered by the industrial

revolution should be mentioned. At the same time, there had been an increase in the number of enterprises connected to the railways. In addition, many legal regulations related to companies had been made and businesses had started to be subject to tax. In other words, the number of “taxpayer” firms had started to increase. In addition to these, the establishment of industrial companies and the observation of mergers between organizations should be emphasized. All these developments had been seriously influential both in the world and in Turkey (Hiçşazmaz, 1970).

By the 1960s, it became necessary to follow some accounting techniques with the planned development period in Turkey. Regardless of whether the private sector or the public sector, investment expenditures towards targets gained importance. A working committee (commission) consisting of those dealing with accounting theory and practitioners was established. The mentioned board, especially in 1964, examined the financial affairs of economic state institutions within the historical development process and paid attention to the fact that it could be applied in all institutions. In other words, a certain standard was tried to be brought across Turkey. The same board had produced and published 8 handbooks as a result of 4 years. The highlighted books began to be published and shared in 1968 (Okay, 2011).

By the 1970s, private sector enterprises operating in Turkey applied to foreign credit resources and met with the necessity of auditing in this process (Uzay et al., 2008). Arthur Andersen, one of the international independent audit firms, opened an office in Turkey in 1975. Starting from 1977, principles regarding cost accounting were determined and started to be implemented. In 1979, the Turkish Accounting Education Symposiums were started. In 1981, the independent audit firm PriceWaterhouseCoopers (PWC) opened a branch in Turkey (Sermaye Piyasası Kurulu - Capital Markets Board, 1985).

Also, starting from 1986, the Uniform Chart of Accounts for Banks was put into practice by the Banks Association. As it is known, the uniform chart of accounts of enterprises and banks is still different from each other today. In 1987, the development of financial markets caused the regulatory authorities to focus on the issue of independent auditing. In other words, Turkey met with independent auditing in 1987. In the same year, it was determined that banks and capital market actors should also be subject to independent auditing. On June 13, 1989, the Law No. 3568 on “Public Accountants, Certified Public Accountants and Sworn-in Certified Public Accountants”, which is very closely related to the accounting profession, came onto the scene. So, the Association of Chambers of Certified Public Accountants and Sworn-in Certified Public Accountants of Turkey (TÜRMOB) was also established (Uzay et al., 2008).

The year 1994 is considered a milestone in Turkish accounting history. The reason is that, a uniform chart of accounts had been adopted for normal transactions based on balance sheet. The Ministry of Finance published a communiqué and established the basis for the basic content of

accounting and the reorganization of financial statements within the scope of the uniform chart of accounts. With this regulation, the Ministry of Finance aimed to create a tax accounting system that would provide an effective tax inspection opportunity. At the last point reached today, there are many regulations. The most important of these are Free Market Board Communiqués, Turkish Accounting Standards (TAS) and the Banking Law (Sayar, 2002).

In regards to 1995, Turkish Accounting Audit Symposiums were started to be organized. In addition to these, Turkish Accounting Standards Symposiums were organized in 1996, International Accounting Conferences were held in 2004, and Balkan Countries International Accounting and Auditing Conferences and Continuing Educational Training Programs were organized for the first time in 2007. It should also be noted that the Public Oversight, Accounting and Auditing Standards Authority (KGK) was established with the Decree Law No. 660 on November 2, 2011 and the international auditing standards were published by the Capital Markets Board (CMB) in 2006. KGK was established to replace the Turkish Accounting Standards Board (TMSK) (Uzay et al., 2008).

In addition, on 13.12.2011, Electronic Ledger General Communiqué No. 1 was published in the Official Gazette No. 28141. On 05.03.2010, the Electronic Invoice was published in the Official Gazette numbered 27512 and included in the application with the "Tax Procedure Law" (VUK) General Communiqué numbered 397. Electronic Ledger and Electronic Invoice applications, which were optional in the first phase, later became compulsory for some taxpayers in 2012. As of September 1, 2013, taxpayers who were included in and used to use the electronic invoice application were required to use electronic invoices for the services they receive and provide from each other. At the same time, taxpayers who were within the scope of obligation in the electronic ledger application were also asked to complete their transition processes by the end of 2014 (Öğredik, 2013).

Moreover, as of January 1, 2005, the consolidated financial statements of publicly traded companies in the European Union were required to be prepared in accordance with International Financial Reporting Standards (IFRS). In 2009, the United States Securities and Exchange Commission (SEC) gave the initiative to companies to implement IFRS. It was also stated that the transition to IFRS had to be completed by the end of 2014, 2015 or 2016. In addition, as of January 1, 2013, in the Turkish Commercial Code (TCC) numbered 6102, Turkish Accounting Standards (TMS) and Turkish Financial Reporting Standards (TFRS) were envisaged to be applied in the preparation and presentation of financial statements (Parlakkaya, 2004).

Finally, the Financial Reporting Standard for Large and Medium-Sized Enterprises (BOBI FRS) was published in the Official Gazette dated 29 July 2017 and numbered 30138. BOBI FRS is the financial reporting framework to be applied by companies that are subject to independent audit but are not subject to Turkish Financial Reporting Standards (TFRS) (Öztürk, 2018). Thus, it became mandatory for these enterprises to prepare their individual (solo) and consolidated financial statements in

accordance with the BOBI FRS for accounting periods starting on or after 01.01.2018 (Kamu Gözetimi Muhasebe ve Denetim Standartları Kurumu - Public Oversight, Accounting and Auditing Standards Authority, 2021).

## **8. Research Ethics**

This research paper did abide by the ethical rules and principles. References were made in accordance with the scientific standards. Since this is a paper on accounting history, there was no need to present an ethical committee report. The author declares that this research paper does not require an ethical committee report. The study is original and was carried out with following the universal scientific rules.

## **9. Conclusion**

Accounting is a discipline that provides significant benefits to a wide range of stakeholders. Recording and tracking financial transactions of businesses, scrutinizing the assets, debts and equity of the companies, determining the income, expense, profit or loss of the companies, realizing the mergers and acquisitions, signing the privatization agreements, fulfilling the tax collection function of the state, obtaining the necessary information for the investors are only possible with accounting. Employees and even the rival companies can be equipped with the information provided by accounting. It is evident that accounting is literally the heart of institutions in our age.

It is only possible to have full knowledge of a branch of science and to understand that branch of science completely, by knowing its past and historical process. In this study, the history of accounting was analyzed in detail, starting from the ancient civilizations and then including the Ottoman Empire and the Republic of Turkey. In this way, considering the development process of the relevant literature, it was thought that new studies on accounting science could be shed light on and accounting science could be understood in a multi-faceted way.

In the research, first of all, general information about accounting science, ancient civilizations, the Ottoman Empire and the Republic of Turkey was presented through the Introduction Section. Later, in the Literature Review Section, studies on the history of accounting were briefly included and these studies were examined. In the third part of study, Accounting in Ancient Civilizations was comprehensively discussed. In the fourth part of research, Accounting in Turkish and Islamic Civilizations was mentioned. In the fifth section of research, Accounting in the Ottoman Empire Era was examined in detail. In the sixth part of paper, Accounting in the West through Middle Age, New Age and Modern Age was analyzed. In the seventh part of research, Accounting in the Turkish Republic Era was discussed intensively.

Finally, the research carried out shows that the history of accounting dates back to ancient times in the world. The reason is that, accounting served humanity in many areas so far. Accounting, which



had been previously used as a simple recording, documentation and archiving tool, deepened its functions over time. To give an example; effective analysis and interpretation of financial statements, accounting of intellectual capital, integrated reporting, accounting-machine learning relationship, artificial intelligence in accounting, use of technology in accounting education and applications, accounting and reporting of cryptocurrencies, artificial neural networks in accounting and auditing, and remote auditing are widely discussed today. Actually, some of these topics are even discussed more as a result of the Covid-19 pandemic. Undoubtedly, the history of accounting from past to present signals that accounting will be one of the most important branches of science in the world in the coming years as well.

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