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*HIGHER EDUCATION INSTITUTIONS AND THE ACCOUNTING
EDUCATION IN THE SECOND HALF OF XIXTH CENTURY ON THE
OTTOMAN EMPIRE*

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Higher Education Institutions and the Accounting Education in the Second Half of XIXth Century on the Ottoman Empire

Abstract

The aim of this study to examine, the higher education institutions' development and the paid attention on the accounting education in the Ottoman Empire as a consequence of efforts on conforming to the politic and economic developments of the 19th century Westernization movements and transiting to European based double-entry bookkeeping methodology. After summarizing economic and politic annals of the second half of the 19th century, founded-in the term higher education institutions are mentioned. Handout especially dwelled on the subject of accounting education in the higher education. Sample accounting doctrine books used in the education of accounting are given on the final section of the paper.

Key words: Ottoman Empire, XIXth century, Higher Education Institutions, Accounting Education

1. The Economic Events Had Influenced the Ottoman Empire Higher Education in the Second Half of the XIXth Century

No sooner had rapidly developed in the mid 19th century, European industry started look for new markets and initiated to diffuse on Ottoman Empire's geography that Ottoman industry based handicraft production faced with significant perils (ELDEM, 1994, p.38). The Ottoman Empire was an agrarian country and agricultural products were the dynamics of the economy (GÜRAN, 1998, p.52). However, at the end of the 19th century, Ottoman empire lost its customs advantage due to capitulations signed with many European countries which were on the industrialization process. 19th century Ottoman Empire's economic policies will be classified into three terms. In the first period, continuing till to the year of 1826, conservative policies were followed. In the second, between 1826 and 1860, Ottoman markets are opened to foreign merchants and liberated. In the third period, since 1860 until 1908, customs were increased and domestic producers were protected. Between 1867 and 1874, Devlet Sanayi Reform Komisyonu (State Industry Reform Commission) and some of the Ottoman lodges strived for renovating themselves. Along with the view of that based on handicraft producing, small enterprises may not challenge with the huge European factories, some works were done for establishing machine-manufacturing industries. These progress' counseled some requirements such as artisans should have merged, products should have been standardized according to its type and price, increasing the customs tax, industrial schools should have been established. Beyond failing on unsuccessfully taken guards (QUATAERT, 2000, p.888), Ottoman economy began to erode slowly. On the other hand, for stimulating ottoman industry, importation taxes were increased from 3% to 8% by the signing of the 1861-62 agreements which were a part of the conservative governmental policies which growth in 1860s. Furthermore, in order to reinforce the sales of domestic products, exportation taxes decreased from 12% to %1 by the agreement. 1867-74 Devlet Sanayi Reform Komisyonu (State Industry Reform Commission) restructured the ways of how Ottoman economy will partake of the global economy (QUATAERT, 2000, p.889).

Identical with the same reason – stimulation of the domestic industry -, customs and taxation exemptions are provided to possible factory builders by 1873 dated canon. In the year of 1888 these exemptions are broaden to embrace the major raw-materials for factories and taxation exemption for newly established factories is legislated in 1897 (ELDEM, 1994 , p.59).

Moreover, the loan taken during the Crimean War in the 1854 to remedy economic incapacity is the first foreign borrowing of the Ottoman Empire (YILMAZ, 2002 , p.186). After that, the Ottoman Empire signed other 17 loan agreements and while gaining 127.000.000 Lira, Ottoman Empire's total dept rose to 239.000.000 Lira. (HELPHAND, 1977, p. 34). Just a little of the total debt returned into investment, on the contrary, rest of the money is expensed on current expenditures, palace construction and salaries. In 1875 it is arranged that the debts would be paid according to a payment table which was going to be scheduled by the Ottoman Empire. This arrangement was called as bankrupt by European financiers. In parallel to monetary crisis, baknote emmission strategy again used to close budget deficit and economic crisis reachead the peak in 1860s.

Ottoman agrarian products' international trade got started in the beginning of the 19th century, nevertheless significant emerge of the industry was obliged to postpone to 1830 because of the wars and insurgencies in Greece to (QUATAERT, 2000,s.888 -889).

Effects of these annals over foreign trade and the development of corporations can be seen on the tables below.

Table-1: Foreign Trade of the Ottoman Empire (Sterlin)

| Term | Export (FOB) | Import (CIF) |
|-------|--------------|---------------|
| 1850s | 9.800.000,- | 12.300.000,- |
| 1860s | 15.400.000,- | 18.300.000,- |
| 1870s | 18.600.000,- | 20.800.000,- |
| 1880s | 15.500.000,- | 16.000.000,- |
| 1890s | 17.700.000,- | 18.600.000,- |

Source: QUATAERT (2000, p.947)

Table -2: Otoman Empire's Place in World Trade (USD)

| | Otoman's Foreign Trade | Total World Trade | Percentage of Ottoman's Trade |
|------|------------------------|-------------------|-------------------------------|
| 1880 | 115.900.000,- | 15.603.000.000,- | %0.74 |
| 1890 | 157.300.000,- | 16.944.000.000,- | %0.92 |
| 1900 | 38.750.000,- | 170.500.000,- | %0.86 |

Source:ELDEM (1994)

Table-3: Factory Belongings of Private Sector

| Type of Industry | Until 1880 | 1881-1890 | 1891-1900 |
|------------------|------------|-----------|-----------|
| Food Industry | 15 | 6 | 7 |
| Soil Industry | 1 | 2 | 3 |
| Leather Industry | 3 | 1 | 3 |
| Textil Industry | 17 | 4 | 6 |
| Paper Industry | 17 | 6 | 6 |
| Total | 56 | 19 | 32 |

Source: ELDEM (1994, p.65)

Besides economic progresses, mentioned above, rises in the total amount of commercial and industrial enterprises, ameliorations both in exportation and importation, Administrative and financial modernization struggles, which commenced with Tanzimat Fermani in the first half of the 19th century, led economic institutions, similar to the ones in Europe, to be founded in the Empire as did in many other fields.

2. Higher Education Institutions and the Accounting Education in the Second Half of the XIXth Century on the Ottoman Empire

The Science literature about the Ottoman Empire (1299-1922) has been separated the Ottoman era into three main terms as 'Establishment Era', between the years of 1299-1453, 'Development Era', between the years of 1453-1599, and the era of 'Discontinuance of the Classical Science Tradition and the Starting of the Modern Science Future', between the years of 1600-1922.

The most significant character of the "Discontinuance of the Classical Science Tradition and the Starting of the Modern Science Future Era" is the complete rotation of the Ottoman Science comprehension from the East towards to the West, the influence of newly established institutions may not be neglected in this alternation. The Empire was opened its gates to Renaissance actions in the West at first and subsequently to the new information fields after facing with military losses.

Ibrahim Muteferrika declared the names of Western Scientists in the abstracts of the books printed in his own printing house. More significant fact is that some of these books were on the subjects, such as geography and America, which Ottoman not much concerned in the period. Towards to the end of the century, the establishment of the education institution forming the core of today's Istanbul Technical University highly contributed to the era especially for the mathematics and natural sciences. In the early XIXth century, in which an academic atmosphere not matured yet, people such as Sanizade Ataullah, Huseyin Rifki Tamani, Seyyid Mustafa had individual but crucial translation and compilation works.

Especially Huseyin Rifki Tamani differs from the classical Ottoman science subjects due to his translation works from the West. For instance, instead of Kadızade's Eşkalut - Te'sis, which depends on Euclid's geometry and regarded as one of the most important mathematic works of the Ottoman classical science, he translated the English Mathematician Bonny Castle's work, Euclid's Elements. As a result Kadızade's work which had been thought at the education for many years, replaced with Tamani's translating, in the name of Usul-i Hendes, Printed by Ishak Efend, Medhal-fil's Geography titled work is another exemplary.

In the Ottomans, the application of sending students to Europe for higher education started in the era of Sultan Mahmut the IInd. Four Ottoman students, whose expanses were paid by state budget, sent to France first in 1830. In addition, these students educated the military sciences.

After the declaration of Tanzimat Charter (1839), the students wishing to have higher education in the civilian subjects added to the ones sent to Europe. Between the years of 1848-1856, approximately 50 students have been sent just to Paris. With the aim of organizing the education of Ottoman students in France, an Ottoman school in the name of Mekteb-i Osman-i (School of Ottomans) was founded in Paris in the year of 1857.

Ottoman rotation from the East to the West, the changes taking place in the fields of science and education led to establishment of civilian higher education institutions, beside the education of medresse (theological school). First attempt is the foundation of a new higher education institution in 1870, in the name of Daru'l Funun-i

Osman-i (Ottomans' University). Consisting of three faculties, Daru'l Funun-i Osman-i worked similarly to today's universities. These faculties are the Faculties of Philosophy and Literature, Law and Medicine and Mathematics in which the education duration was four years. Three years of the whole education were for education stage and one year for graduating thesis stage. The lectures were based on French Model in the faculties of Law, Medicine and Mathematics. In contrast, beside the lessons of Arabic and Persian as Eastern languages, the lectures of French and Latin took place in the syllabus in the faculties of Philosophy and Literature. After Daru'l Funun-i Osman-i closure in 1873, Daru'l Funun-i Sultan-i (Sultans' University) was founded in place of it in the year of 1874. In Daru'l Funun-i Sultan-i, at the end of the 4th year education the students preparing and successfully presenting a scientific thesis graduated with a doctoral degree and they titled as the doctor. On the other hand, others not preparing a thesis would have graduated by taking an exam, easier than doctoral.

Mekteb-i Mulkiye (The Faculty of Political Sciences) was founded in 1859 with the aim of training the officials who would have been employed in the public sector as head officials of districts or public officials. The education duration of the Mekteb, which was 2 years at the beginning, was increased to 4 years in 1867. The disciplines as States Law, Usul-i Deftter (book methodology), Accounting, French, Economics, Philosophy, Finance and Public Administration, Constitution Law and Civil Law placed into the school's syllabuses.

The most significant within the higher administrative education institutions opened in the second half of the XIXth century was Hamidiye Ticaret Mektebi (Hamidiye School of Commerce) founded in 1883. It was the first higher education institution aiming to educate entrepreneurs and employees who may work in the private sector that it was unique for the term. It is known that Hamidiye Ticaret Mektebi continues its lasting education facilities in the name Marmara University today. In its primary years, syllabus of the Hamidiye Ticaret Mektebi was imitated from French institution, Ecole des Hautes etude Comenciales, had similar education. However, the education historians have pointed out that syllabuses of Hamidiye Ticaret Mektebi were so difficult and also difficulties were experienced while finding out lecturers. The education programme of the school at the end of XIXth century is given below.

Table: 4

Hamidiye School of Commerce's Weekly Schedules

| Subject | First Year | Second Year | Third Year | Fourth Year |
|---|------------|-------------|------------|-------------|
| Language and Literature and Muharrerat-ı Türkiye | 3 | 2 | 2 | 2 |
| Language and Literature and Muharrerat-ı Franseviye | 3 | 2 | 2 | 2 |
| Translation from Turkish to French and from French to Turkish | 2 | 2 | 2 | 2 |
| Accounts of trade | 2 | 2 | 2 | - |
| Hendere ve Mesaha ve Evzan ve Ekyal ve Müsellesat ve ale'l-umum Rizaye | 1 | 3 | 1 | 2 |
| General Geography and Ottoman and Commerce and Statistics | 3 | 1 | 2 | 2 |
| General History, Ottomans' History and Commerce | 2 | 1 | 1 | 1 |
| Tarih-i Tabi'i | 2 | 2 | 2 | 2 |
| Art/Painting | 2 | 2 | 1 | 1 |
| Hüsn-i Hatt-ı Türki | 1 | 1 | 1 | - |
| Book Methodology | 1 | 1 | - | - |
| Elsine-i ihtiyariye | 2 | 1 | - | - |
| Fünun-ı Ticariye | 1 | 2 | 2 | - |
| Philosophy | - | 1 | 2 | - |
| Chemistry | - | 1 | 2 | 2 |
| İlm-i Servet-i Mîlel | - | - | 2 | - |
| Land and sea commerce Law | - | - | 1 | 2 |
| Ticaret İdarehanelerinin mu'amelatı | - | - | - | 4 |
| Techizat-ı Harbiye | - | - | - | 2 |
| Memalik-i Şahane'nin Müessesat-ı Maliye ve Sına'iyesi hakkında ma'lumat | - | - | - | 2 |
| Discussion | 2 | 2 | - | - |

The main accounting education has been given in Hamidiye Ticaret Merkezi and Mektebi Mülkiye. The numbers of the students and the instructors of these schools have been given below.

Table-5: Higher Education Institutions in which Accounting Courses Given

| Hamidiye Ticaret Mekteb-i | | | Mekteb-i Mülkiye | |
|---------------------------|----------|-------------|------------------|-------------|
| Year | Students | Instructors | Students | Instructors |
| 1863 | - | - | 50 | - |
| 1883 | 95 | - | 300 | - |
| 1895 | 22 | 8 | 446 | 69 |
| 1901 | 56 | - | - | - |

Later, beside Daru'l Funun-i Sultan-i, Daru'l Funun-i Sahane, which has been consisted of the Faculties of Philosophy, Mathematics and Medicine and Theology and has constituted of the basis of Turkish Universities, was established in 1900. The aim of Daru'l Funu-i Sahane has been to prevent the young going to Europe for education as escapees. It has been known that Daru'l Funu-i Sahane has been reorganized in the name of today's Istanbul University.

3. The Accounting Education Books In The Higher Education Institutions Of The Ottoman Empire In The Second Half Of The XIXth Century

In the Otoman Empire, the governmental accounting was developed. The books, Saadetname, written by Felek Ala'yi Tebriz in 1307, Cami-ul-Hesab, written by Imad-es- Serav in 1340 and Risal-i Felekkiye Kitab-us Siyaqat, written by Abdullah puser Muhammed bin Kiya-el-Mazenderan in 1363 have constituted of samples for the governmental accounting. There had not been any development in the private sector accounting for many years. The governmental accounting had been proceeded within the master-apprentice relationship and so, accounting education has not been given at schools for centuries and also the accounting teaching books have not written and published.

In the second half of the XIXth Century, the innovation movements both Tanzimat Charter (1839) and Islahat Charter (1856) brought, have seemed to challenge the Ottoman Empire as in many areas of Western culture in also accounting applications. This challenging has seemed firstly in the education arena. Thus, it has seemed to be given place to the accounting education in the schedules of almost all education institution started to educate through the second half of the XIXth century. In this education mobilization, accounting teaching has taken place widely in the secondary schools and higher education institutions. It has been started to be taught double-entry method of accounting as a simple method of accounting in the schedules as in the Western countries instead of traditional governmental accounting order of Ottoman Empire.

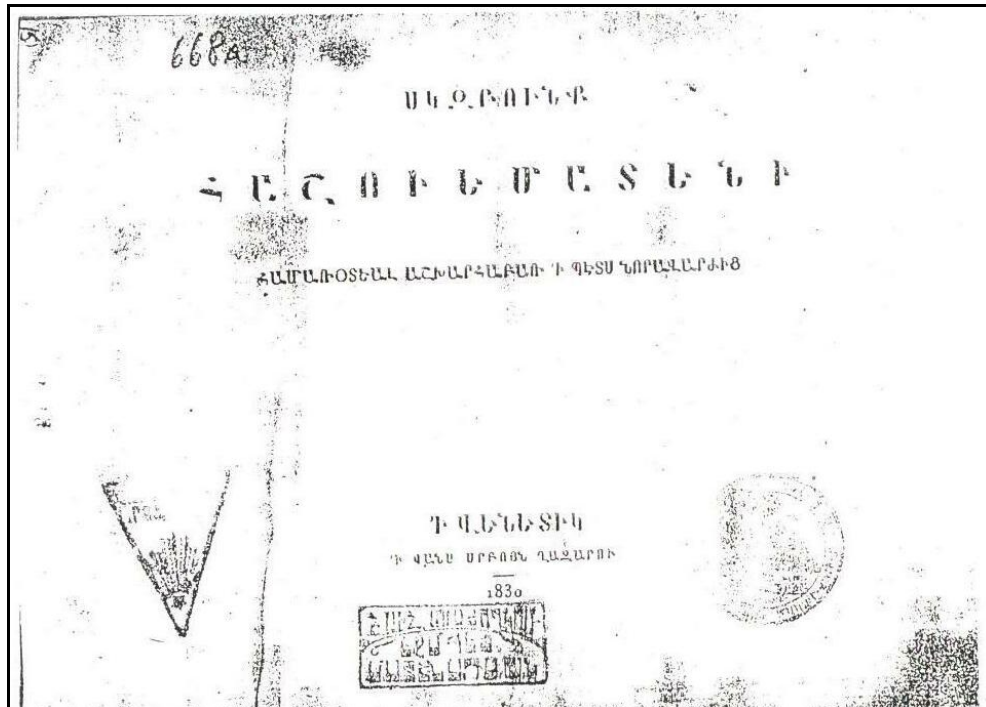
For this accounting education mobilization, it has been necessary to have accounting teaching books about simple-entry accounting method and double-entry accounting method. Thus, this need has caused to the translation of the accounting books in French before, but later, Turkish writers have started to write accounting teaching books. In the Ottoman Higher Education Institutions, especially French accounting

teaching books have taken place. The reason of this fact is that Kanunname-i Ticaret (Code of Commerce), which took effect in the year of 1850, has been prepared by the inspiration of Code de Commerce, which took effect in France in the year of 1807.

In this part of the paper, firstly, four accounting teaching books written in the second half of the XIXth century are introduced. The two out of these books are the ones teaching double-entry accounting method, the third one is a book aiming at introducing double-entry accounting method for the governmental accounting applications and the last one is the agricultural accounting book helping to put forward accounting idea in terms of kinds, namely, for different disciplines.

There are a lot of common characteristics of the writers of four accounting books, which is introduced. Not having adopted the double-entry accounting method completely, changing the places of the sides of debt and credit because of the right to left writing style of the Ottoman's language and usage of the single amount column are the common characteristics.

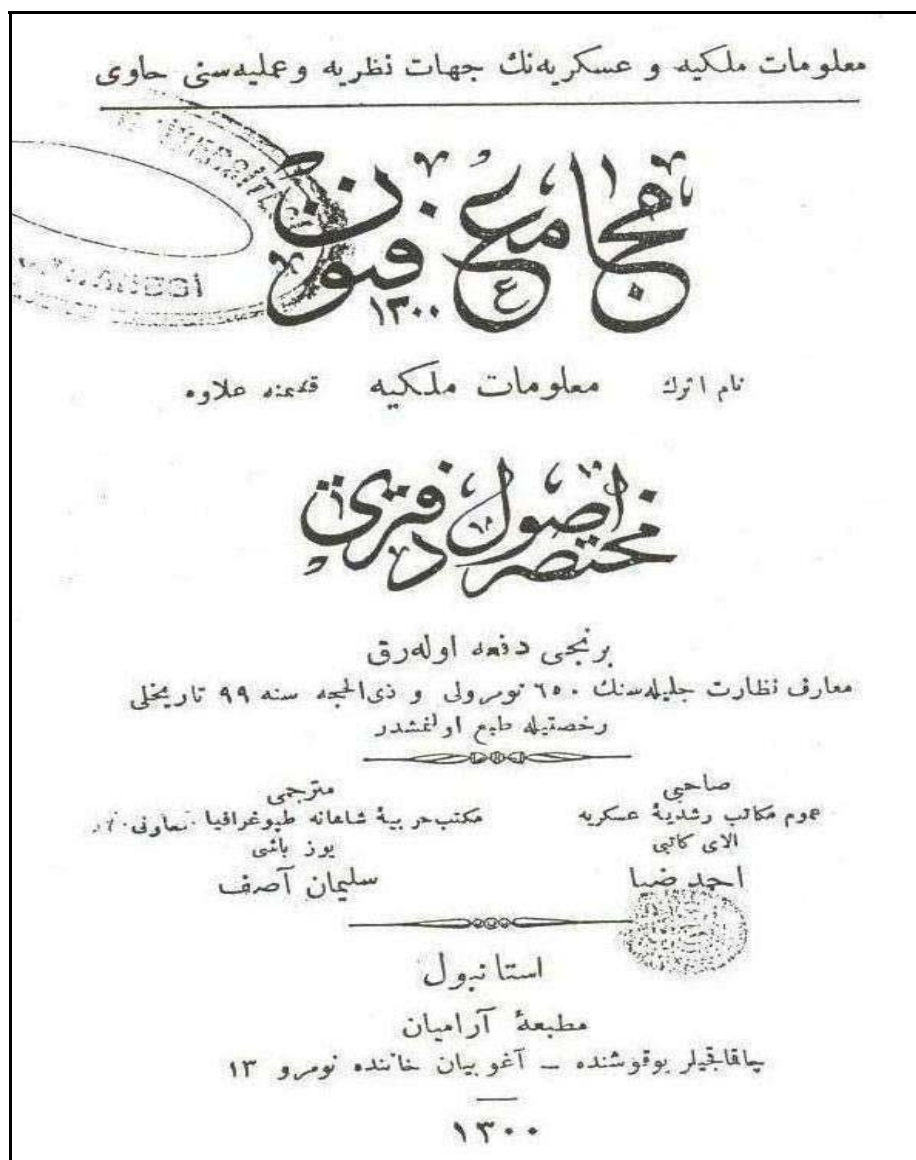
The first accounting book 'Hesap Defteri Prensipleri İlk Başlayanların İhtiyaçları İçin Halk Dili İle Yazılmış Özet' (Account Book Principles – An Abstract for the Begginers), telling the double-entry method of accounting in the Otoman Empire, was printed in Holy Gazar Theology Scool in Venice in the 1830s. It is understood that the book which had given place to accounting records of a firm in Izmir (Smyrna) has been written for the Armenian merchants in the Otoman Empire territories. In the Introduction part of the book the introducing of the Account Book as follows: "...it manages the trade and envisages what to do for a high success by reminding to the merchant the goods, money, receivables, givens and the forgotten things". The Cover of this book has been showed below:



The first translated accounting education book in the Otoman Empire is 'Muhtasar Usul-i Defter', which was translated from French in 1882 by Süleyman Asaf.

The writer argues in the preface part of the book that "...by virtue of our book the troubles having been had by students will be over. Also, except for the methodology which had been followed in the books before, this book gives samples about commerce transactions among merchants."

A copy of the Cover of this pretentious accounting education book is below.



In the book, the following accounts with the name of Hesabat-ı Umumiye (General Accounts) have been analyzed:

- Merchandise Inventories,
- Cash,
- Notes Receivables,
- Notes Payables,
- Profit and Loss.

Recording to the rough copy book and Journal of a cash buying have been placed in the following example in the book.

| | | | |
|-----------------------------|--|-----|----|
| 5 th August 1870 | | | |
| | 100 kg olive oil of which one kilogram is 3 kurus paid in cash. | 300 | 00 |

Let's look for who are the debtor and creditor for reflecting this rough copy record to the journal. It is seemed here that 100 kilogram olive oil has been bought. And because of the characteristic of the product it means that goods have been bought. He is a debtor and because of the fact that he has paid the price in cash, in this condition cash is in credit position. In this situation, it is suitable to enter goods in assets and cash as credit in the journal. But, because of the fact that abbreviation is preferred it should be written as the "goods to the cash" then to write a short explanation.

| | | | |
|---|--|-----|----|
| B | 5 th August 1870 | | |
| | Goods to the Cash | | |
| S | 100 kg olive oil of which one kilogram is 3 kurus | 300 | 00 |
| A | 'In this record, B shows records Journal row number, S shows debtor's page number in the General Ledger, A shows creditor's page number. | | |

Now, let's explain the entries of General Ledger. To reflect the entry above to the General Ledger, we open the goods ledger page first and record it to the debt side.

A copy of the figure of entry to the General Ledger in the book is below. The right side of the General Ledger is separated as debt and left side of it has been separated as credit. Indeed, the europeans' entry has been adverse of this. The reason of this may have been the writing of Ottomans' language from right to left.

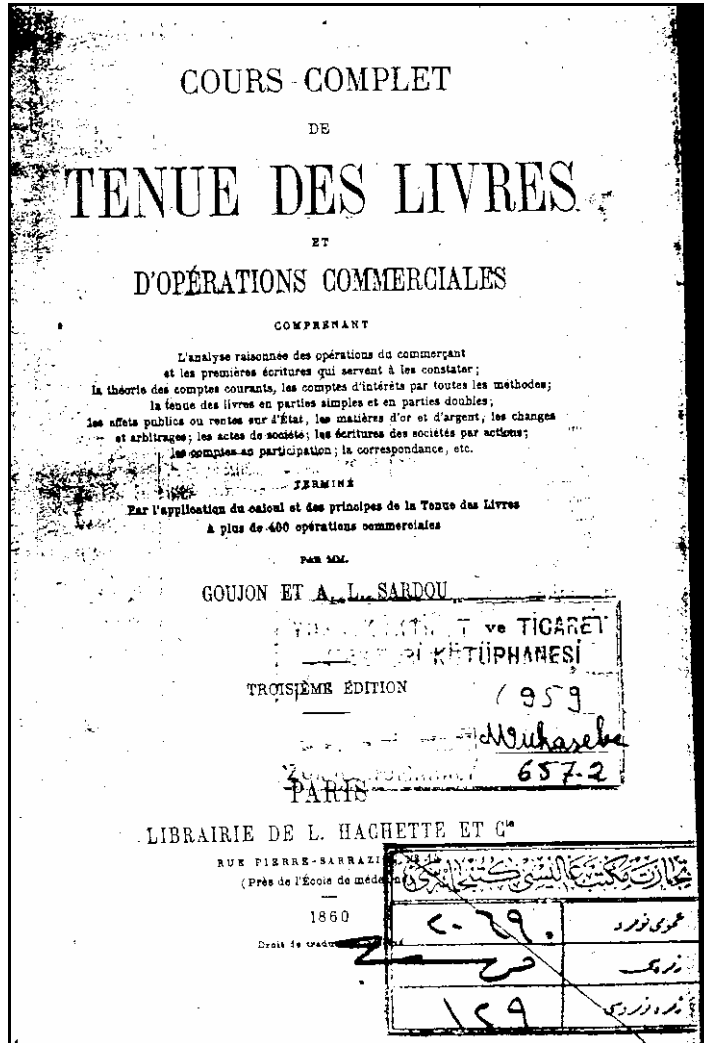
After this, providing, inventory, record mistakes, closing the accounts, interest and balance sheet have been mentioned in the book. The chart called as Balance Sheet in the book is demonstrated below.

| Liabilities | Kuruş | Kuruş | Assets |
|----------------|-------|-------|-------------------|
| NOTES PAYABLES | | | CASH |
| OTHER PAYABLES | | | NOTES RECEIVABLES |
| CAPITAL | | | GOODS |
| | | | OTHER RECEIVABLES |
| Total | | Total | |

The increasing or the decreasing of the capital shows the profit or loss of the company. The figure of the balance sheet explained above, which takes place in the book is as follows.

| مطلوب | | ذمت | |
|---|-------|---|-------|
| فروش | | فروش | |
| دين سنداتی بو کونکي جېښه تادېدېسى قلان | | قاصه بو دوزن محاسبه يدي نظراً موجود نقود | |
| عند الحساب دايتر بو کونکي محاسبه موجوده تادېدېسى قلان | | مطلوب سنداتی کونکي محاسبه نظراً جزودان موجودی | |
| سرمایه | | امتعده عمومیه بو کونکي محاسبه يدي نظراً انوانتر موجوده موجود مقامه | |
| | | عند الحساب مديونکر بو کونکي محاسبه يدي نظراً الخ الخ | |
| جمعاً | | جمعاً | |

On the other hand, in the second half of the XIXth century, the French impacts to Ottoman Empire's higher education institutions and education in French have allowed to use accounting books printed in France. One of these book is Cours Complet de Tenue des Livres et d'Operations Commercialas.



This book was published in Paris (1860). The writers of the book are Goujon and A.L.Sardou. The book consists of two parts. The first part of the book is called theory and the second part of the book is called implementation.

The subjects in the first part of the book are the methodologies of book keeping, general theory of the accounts, the kinds of books, providing, cooperations, accounts, foreign trade transactions, navigation and insurance transactions, silver and gold etc.. The subjects of the second part of the book are invoices, purchases, the examples of book keeping, silver and gold transactions, the samples of foreign trade transactions and correspondence.

An education book about double-entry bookkeeping methodology for the governmental accounting of Ottoman Empire name as *Fenni-i Defteri – Kayd-ı Muzaaf Usulu* was written by Şefik in 1895.



The writer has mentioned the aim of preparing the book in the introduction part as follows: ‘...to give basic and practical information about governmental accounting to the higher educated people who have chosen to be state officials’. The book has been consisted of two parts. First part is introducing the accounting books and the second part of the book has consisted of a long implementation.

In the first part of the book journal, general ledger and its assisting books, documentations, proof, the methodologies of auditing within accounting and the harmonizing of the books and accounts and in the second part of the book the implementations as seen in the West are introducing.

The most important character of this book has been the making entries of the journal and general ledger in the form of from the left to the right in spite of the writing in Ottomans’ language from the right to the left. On the other hand, it has been drawn attention of making entries in the assisting books again from the right to the left and also writing the debit and credit account values in a single column.

It has also been pointed out that to find the debtor and creditor accounts it should be known three rules. First has been that the one coming into has been debtor, and the one going out has been creditor. Second has been that taking account has debt to the giving account. Third, the account to which something has been given is debtor and the account which something has been taken on the behalf of, is creditor For example, let's accept that in 1895 50.000 kurus is collected from the Tresuary. And now let's find out the credit and debt accounts.

Who is receiving? Cashier's Office

Who is giving? Collecting Account of year 1895 Treasury

What is given? 50.000 kurus

Now, let's record the accounts by taking account the three rules. In the example above the Cashier's Office is debtor because of the fact that it is receiving. Collecting Account of year 1895 Treasury is creditor because of the fact that it is giving. As for the third rule, to avoid the burden of checking the assistting books it is necessary to make short explanations for each transaction about to take explanation on the transactions.

| 1 Haziran 1895 | | | |
|----------------|--|--------|--|
| 1 | Cashier's Office is debtor | | |
| 2 | Taking to Collecting Account of the year 1895 from Treasury as Cash | 50.000 | |

And now let's try to explain the entries of General Ledger.

| Alacak | | | | Cashier's Office Account | | | | Borç | | | |
|--------|--|--|--|--------------------------|--|--|--|------|---|--------|--|
| | | | | 1895 | | | | | | | |
| | | | | 1895 | | | | 2 | 1 | 50.000 | |

| Alacak | | | | Collecting Account of the year 1895 Treasury | | | | Borç | | | |
|--------|--|--|--|--|---|--------|--|------|--|--|--|
| 1895 | | | | | | | | | | | |
| 1895 | | | | 2 | 1 | 50.000 | | | | | |

In the book , it has been pointed out of the importance of the organizing format of the providing. According to this, while organizing the proof firstly the sums of journals have been handled. Later, the sides of debt and credit of accounts in General Ledger. At last, after the writing of the debt sums of accounts in one side and the credit sums of accounts in another side on the proof they all have been added. In the proof,

each of the debt and credit sums should be equal the sum of the journal sum. If there has been a difference between these sums, it will have meant that there had been a mistake while posting to the General Ledger. Later the mistake is found by analyzing the journals article by article and the conformity between the books is maintained. The sample of the proof in the book has been shown below.

Trial Balance of Providing

| Name of the account | Amounts | | Net Amounts | | Difference | | Explanation |
|---------------------|---------|-----|-------------|-----|------------|----|-------------|
| | B | A | B | A | B | A | |
| Total | 155 | 155 | 130 | 130 | 25 | 25 | |

The book teaching the double-entry bookkeeping methodology for Ottoman Empire's agricultural accounting was Muhasebe -i Ziraiye written by Aram in 1885.



Aram has said in the abstract of the book that “It has been that firstly to bring up the situation of the agricultural accounting in the Otoman Empire. Later to help the ones who want to keep the accounts of their own farms in the form of its appropriate procedure. Also, to bring up that it is possible the implementation of accounting, in the farms of Europe and America, in Ottoman Empire also”

The book has consisted of three parts. In the first part there have been what agricultural accounting needs and context of it. In the second part, there have been the kinds of books and the third part has been the conclusion. The writer suggest three main books in the book. First is fixture book, second is goods entry book and the third one is cash book.

The goods belonging to farm owner and renter, farm goods, the animals in the farm, animal incomes and crop in the field have been entried to the Fixture book.

| Unit Names | Purchase Year | Price | Net Value | Actual Value |
|-------------------------------|---------------|-------|-----------|--------------|
| <u>Furniture and Bedstead</u> | | | | |
| 1 Desk | 1885 | Kuruş | Kuruş | Kuruş |
| | | 500 | 450 | 425 |
| 4 Iron Bedstead | | 600 | 550 | 540 |
| 10 Bedstead | | | | |
| 20 Quilt | | | | |
| <u>Kitchen Equipments</u> | | | | |
| 5 Saucepot | | | | |
| 150 Plates | | | | |
| 20 Sahan | | | | |
| | | | Total | 10.000 |

پایه دوش دتزی فی ۳۶ قلمین اول سنه ۳۰۲
اشیای بییه

| عدد | اسمی | قیمت بازار | قیمت کتابخانه | قیمت کتابخانه | قیمت کتابخانه |
|-----|---------------|---------------|------------------|------------------|------------------|
| ۱ | مویزداو بوقاق | ۳۶ | ۵۰۰ | ۲۵۰ | ۲۵۰ |
| ۱۰ | پازیر ماسه سی | ۵ | ۶۰۰ | ۵۰۰ | ۵۰۰ |
| ۳۰ | پور خار بولد | | | | |
| ۵ | یوروتان | | | | |
| ۱۵۰ | مطبخ طاقی | | | | |
| ۲۰ | تاجیر | | | | |
| | مختارنا تاجیر | | | | |
| | معدن | | | | |
| | | | | ۱۰۰۰۰ | ۱۰۰۰۰ |

It has been recorded to the Goods entry book that in where and how a farm product was used and in what conditions and how much depository total was.

| Date | Explanation | Manure | | Lime | | Artificial Manure | |
|---------|-------------------------|----------|-------|----------|-------|-------------------|-------|
| | | Received | Given | Received | Given | Received | Given |
| | | Kilo | | Kilo | | Kilo | |
| 1885 | Term-beginnig Inventory | 200 | | | | | |
| | To gardens | | 50 | | | | |
| | To fields | | 70 | | | | |
| | Purchased | 10 | | 50 | | 7 | |
| | Total | 210 | 120 | 50 | | 7 | |
| | Fire | | | | | | 1 |
| | Term-end Inventory | | 90 | | 50 | | 6 |
| Balance | | 210 | 210 | 50 | 50 | 7 | 7 |

| جدول | | | | در دبی | | | |
|--------------------|--------------|-----------|---------|--------|---------|---------|---------|
| صنعی کوره | | | | حادی و | | | |
| تاریخ | مورد و مرجع | حادی کوره | | کرج | خوانو | | و غیرهم |
| | | مذخورات | قبورضات | | مذخورات | قبورضات | |
| | | قیه | | قیه | | | |
| تشرین ثانی سنه ۳۰۲ | موجود | ۲۰۰۰۰۰ | | | | | |
| ۱ دن ۱۵ قدر | بنجیدله | | ۵۰۰۰۰ | | | | |
| ۱۵ = ۲۵ = ۳۰ | تر لاله | | ۷۰۰۰۰ | | | | |
| ۲۵ ده | اشترا اولنان | | | ۵۰۰۰ | | ۷۰۰ | |
| ۲۵ دن ۳۰ قدر | علاوه اولنان | ۱۰۰۰۰ | | | | | |
| ۱۰ = ۲۰ = ۳۰ قدر | تر لاله | | ۴۰۰۰۰ | | ۵۰۰۰ | | ۲۰۰ |
| ۲۰ ده | صا تیلان | | ۳۰۰۰۰ | | | | |
| ۳۰ = ۳۰ | بنجیدله | | ۵۰۰۰۰ | | | | |
| ۱ دن ۳۰ نه قدر | علاوه اولنان | ۱۰۰۰ | | | | | |
| | یکون | ۲۲۰۰۰۰ | ۱۸۵۰۰۰ | | | | |
| | تانات | | | ۵۰۰۰ | ۵۰۰۰ | ۷۰۰ | ۳۰۰ |
| | موجود | | ۳۵۰۰۰ | | | | ۵۰۰ |
| | موازنه | ۲۲۰۰۰۰ | ۲۲۰۰۰۰ | ۵۰۰۰ | ۵۰۰۰ | ۷۰۰ | ۷۰۰ |

The money coming into the case of the farm and going out from it have been entered to the Cash Book or muhasebe-i nakdiye. The first page of the cash book in the book has been demonstrated below.

| Income | | | | Expense | | | | | |
|---------|--------------|----------------------|--------------------|--------------|------------|-------|------------|--------------|---------------|
| Product | | | | Animals | | | | | |
| Date | Explanations | Agricultural Product | Industrial Product | Meat | Milk | Wool | Chicken | Other | Sum |
| | | Kuruş | Kuruş | Kuruş | Kuruş | Kuruş | Kuruş | Kuruş | Kuruş |
| 1885 | | 10.000 | 400 | 1.000 | 200 | | 300 | 3.000 | 10.000 |
| | | | | | | | | 1.000 | 400 |
| | | | | | | | | | 200 |
| | | | | | | | | | 300 |
| | | | | | | | | | 1.000 |
| | Sum | 10.000 | 400 | 1.000 | 200 | | 300 | 1.000 | 11.900 |

| دفتري | | | | قاصده | | | | | |
|-------|---------------------------|-------------------------------|-------|-------------|----------|-------------|------------|-------|-------|
| ايراد | | | | حايه اماندن | | | | | |
| تاريخ | مورد و مرسل | مواد حيواني و صنايعه و نباتات | غروش | چيوان و ات | سود خانه | پياغي و دري | كوس محصولي | مختلف | يكون |
| | | | غروش | غروش | غروش | غروش | غروش | غروش | غروش |
| ۲۶ | موجود صديقي | | | | | | | ۳۰۰۰ | ۳۰۰۰ |
| ۲۸ | ايكي دامانتي | | | ۱۰۰۰ | | | | | ۱۰۰۰ |
| ۳۰ | دشپورز كيل استايبولي حنطه | ۱۰۰۰۰ | | | | | | | ۱۰۰۰۰ |
| ۳۰ | بگري كيل استايبولي حنطه | ۴۰۰ | | | | | | | ۴۰۰ |
| ۳۱ | بوز قيه سود | | | | ۲۰۰ | | | | ۲۰۰ |
| ۱۰ | بليج اون صدر | | | | | | ۲۰ | | ۲۰ |
| ۱۵ | بيك تور رمله | | | | | | ۲۵۰ | | ۲۵۰ |
| ۲۲ | بار پيبي خانه كيراسندن | | ۷۵۰ | | | | | ۱۰۰۰ | ۱۰۰۰ |
| ۲۴ | زيتون ياغي بوز لاي قيه | | | | | | | | ۷۵۰ |
| ۲۷ | پياغي او چيوز قيه | | | | | ۱۵۰۰ | | | ۱۵۰۰ |
| | جما بكون | | ۱۰۴۰۰ | ۱۰۰۰ | ۲۰۰ | ۱۵۰ | ۲۷۰ | ۴۰۰۰ | ۱۸۱۲۰ |

4. Conclusion

Related with developing commercial and industrial perspective on the Ottoman Empire in the second half of 19th century, accounting applications and especially double entry bookkeeping system could accrete. Progresses in the field of accounting applications gave rise to need of merchants having accounting knowledge on bookkeeping and recording subjects. On this content, academic institutions were fostered and the number of accounting educative books qualitatively rose in the second half of 19th century in contrast to the preceding periods of the empire.

In parallel to Ottoman governors' indulge to the French culture and French policies over the Ottoman Empire in the second half of 19th century, French impression both on the accounting education and applications explicitly exposed. In the period, accounting education and related syllabus adapted from French school and French education was adopted. Again in the second half of the 19th century, accounting educative books mainly prepared as a translation of the French works. Furthermore, besides the translated books, French accounting education books, imported from France, exercised as a part of term's syllabus of the Ottoman Academy's.

The fact that double entry bookkeeping methodology developed in the Ottoman Empire in the second half of 19th century is obvious. Reasons of that are; Ottoman Empire's having a sui generic and "escalator method" called accounting system and not requiring other methods, debit-receivable, income-outcome columns being written apposite to the Ottoman which is written right hand side to left hand side that caused to long-acting confusions while adopting to double entry bookkeeping methodology, late arriving of the printing to Ottoman empire and not acquiescing for a vastly time by some societies. This fact prevented the possible diffusion of the accounting doctrine books and consequently obstructed being informed of the related groups from novelties.

Ottoman Empire governed accounting applications and accounting educations directly on commercial and industrial life from second half of the 19th century. "Kanunname-i Ticaret" which is promulgated in 1850, strived for forming commercial affairs in Ottoman Empire and quietly thrived – even if not too much – being effective on the accounting applications.

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