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The First Course Books on Double-Entry Accounting in the Ottoman Era

1.Introduction

As has known, Pacioli published his famous book "Summa de arithmetica, geometria, proportioni et proportionalita" (The Collected Knowledge of Arithmetic, Geometry, Proportion and Proportionality) in 1494. Pacioli wrote the Summa in an attempt to redress the poor state of mathematics teaching in his time (Guvemli, 1994, p.1). One section in the book made Pacioli famous. The section was Particularis de Computis et Scripturis, a treatise on accounting. De Scripturis was later described by some as "a catalyst that launched the past into the future." Pacioli was the first person to describe double-entry accounting, also known as the Venetian method. This new system was state-of-the-art, and revolutionized economy and business (accounting.rutgers.edu/raw/aah).

The 500th anniversary of accounting was celebrated in 1994 based on this book. Various research studies were carried out for the anniversary in Turkiye. In his study, Prof. Haydar Kazgan suggested that the first accounting book on double-entry accounting in the Ottoman era is likely to be written in Armenian in the beginning of 19th century (Guvemli, 1997, p.22). On the other hand, two important entries were made in the catalogue prepared by Patriarchate's historian Kevrok Pamukçiyan. Pamukçiyan's catalogue, published for the 50th anniversary of the Republic of Turkey, lists two books on double-entry accounting which were published in the 19th century. One of these books was published in 1828. The other one "Bookkeeping Principles" was published in 1830 in St.Gazar Clerics School in Venice (Guvemli, 1997, p.23).

We can suggest two main reasons to explain why the said books were written in Armenian people dealing with commerce in the Ottoman lands.

1-Trade and craftsmanship were in the hands of minorities and foreigners before Turks came to Anatolia and then during the Ottoman era.

2-The Turkish-Muslim populace inhabited in the Ottoman lands mostly served in the Ottoman army. There was an apprentice training system in the Ottoman

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era, but the Ottoman gave more importance to army than trade. Accordingly Armenians became skilled more in trade and craftsmanship.

We should look at the history in order to better understand the above mentioned reasons as follows.

1-The Turks began to come to Anatolia in the 10th Century. They were people living in cities and conducting various services and production. They had to live in cities in Anatolia, but Rums and Armenians lived in these cities. Turks had difficulties in obtaining necessary raw materials for production and in carrying out their own businesses when they settled the outskirts of these cities. So they had an urge to confederate and search for solutions to the problems related to obtaining supplies. In order to meet these needs, a Turk who was a leatherworker and settled in Kirsehir established a system: Akhism. The name of this Turk was Ahi Evren (1172-1262). He set up a web of distribution and production thus making it easier for Turks who lived in cities to settle in Anatolia by combining Turk and Islam in business affairs. It needs to be mentioned that Rums and Armenians affiliated to Byzantine Loncas (Guilds) had monopoly over handicrafts, particularly trade (Guvemli, 2000, p.394; Cagatay, 1989, p.51).

Akhism coming from Turkish traditions is an organized brotherhood in Anatolia related to trade guilds. Akhism provided the Urban Turks with the opportunity to settle in cities in Anatolia and produce goods and services. As the small businesses producing goods and services came together, a system, which provided businesses with the opportunity to build up lines of businesses through the phases of bulk buying of raw materials, production, and distribution of products, was formed. This system also included quality control. Another feature of the system is related to those who work in laborious businesses. Owner of the enterprise is the one who knows the drill best. He is both the owner and the person in command of the business. There was a hierarchical classification among the employees known as henchman, apprentice, journeyman and craftsman. It is known that enterprises belonging to Akhism mostly do their production with manual labor for local requirements. People working in these small enterprises were classified according to their experiences as henchman, apprentice, journeyman, and craftsman. Mostly little children who had just started work were called henchman and grew to craftsman. Only craftsmen could be the owner of enterprises and new enterprises could be established by people who were craftsmen (Koprulu, 1972, p.96; Ekinci, 1991, p.9; Simsek, 2002, p.20).

Vocational training was given by journeymen and craftsmen in the workplace. Henchmen were children between the ages of ten and fifteen who were sent to work with craftsmen by their families. These children usually worked unpaid or low-paid and became apprentice after two years. While these children's vocational training continued in the work place, they were also given a course including literacy, rules of Akhism and religious education in Zaviyes of Akhi Associations. (Ekinci, 1991, p.89). Apprentice training was also available for accounting in this system lasting between the 13th and 19th Centuries (Guvemli, 2000, p.398).

2-As shown in Table 1, since the Turkish-Muslim populace inhabited in the Ottoman lands mostly served in the Ottoman army, they did not have opportunity to deal with trade. The State-oriented minorities and foreigners were canalized to trade and craftsmanship instead of the Ottoman army. Thus trade and craftsmanship were in the hands of minorities and foreigners during the Ottoman era for hundred of years, as it was once and they became skilled more in these areas (www.turksolu.org). In this context, it is possible to suggest that the Ottoman Empire didn't give due importance to trade before the Reform Declaration (the declaration of Gülhane Hatt-i Humayunu–Tanzimat Fermani[1] on 3 February, 1839).

Type of trade activity	Minorities (%)	Turkish people (%)
Import/Export	97	3
Port works	100	-
Exchange	95	5
Domestic trade/wholesaler	85	15
Domestic trade/retailer	75	25

With the administrative reforms of 1839, a new era called Tanzimat (reformation era) began in the Ottoman Empire. The reforms gave each individual the right to make trade and open a business wherever they want. But the Ottoman Turks dealing with trade were lack of language skills and unacquainted with methods of international trade. Thus only non-Turkish merchants benefited from this trade liberty (www.turksolu.org).

Until the Reform Declaration in 1839, education of professionals needed in economy other than state accounting system did not exist in the Ottoman Empire. With the Reform Declaration, in addition to establishment of contemporary institutions such as Council of State and Supreme Audit Institution, Hamidiye Ticaret Mektebi (Hamidiye Commerce School), which is the first commerce school in the Otoman Empire, was established in 1860 in order to train professionals needed in economy of the Ottoman by giving vocational education. Establishment of Hamidiye Ticaret Mektebi was considered as a significant step in development of accounting education in the Ottoman (Güvemli, 1998, p.96).

Although history of modern accounting education in the Ottomans goes back the year 1860 in which Hamidiye Ticaret Mektebi was established, as mentioned above, the first accounting course books on double-entry accounting used in the Ottoman lands were written in 1828 and 1830. The first book written in 1828 could not be reached to investigate. At the request of Prof. Oktay Guvemli, a copy of the book written in 1830 was sent from Erivan to Istanbul, to Prof. Guvemli, for the purpose of investigation. Prof. Guvemli got the said book translated in Turkish.

With his permission, we translated it into English and investigated its contents for the purpose of comparison to contents of some books written on double-entry accounting in that era. In other words, the aim of this study is to introduce one of the first two course books written in 1830 for Armenians dealing with commerce in the Ottoman lands and compare the contents of the said book to some books written on double-entry accounting in European countries in the years before this book was written.

2.The Cover page and the Contents of the Book

The book titled "Bookkeeping Principles" was published in 1830 in St. Gazar Clerics School in Venice. The original cover page of the book is given below (see Picture 1). The cover page contains the following information:

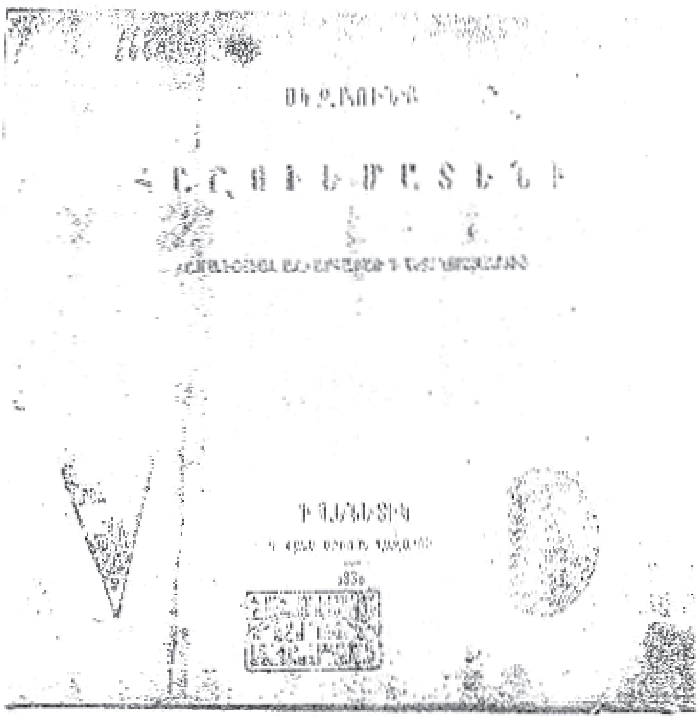
Bookkeeping Principles
"A Summary written for the beginners"
Vernacular
St. Gazar Clerics School
1830

The book contains the accounting records of transactions of Izmir Merchandising Corporation which were given as example in order to explain how to record transactions occurred. Only Ottoman measurement unit 'okka [2]' and Ottoman currencies 'kuruº [3]' and 'para [4]' were used in the example.

The book is composed of 43 pages and has the headings shown in the Table 2. Our study is organized according to the said topics given below. In this section of the study (Section 2), we explain and introduce the following headings. In the study, original explanations in the book are written in *italics style* and our comments are written in normal style.

Table 2. The contents of the book

Contents of the Book	
Headings	**Page number**
Introduction	5
Necessary Rules	5
Reminder Book	7
Journal	15
Ledger	22
Balance Sheet	36



Picture 1. The original cover page of the book

2.1. The introduction section

The introduction section of the book gives information about the merchandise, money, purchases and sales. The section also encourages merchants for trade activities. In addition to this, in the introduction section, it is stated that this book enlighten the amateur merchants in many aspects of accounting and it is emphasized that this book will be an essential tool for accountants.

2.2. The Necessary Rules

This section of the book explains the four basic rules for the merchants as follows:

1) Those who are dealing with commerce should know about how much they gain or lose in their purchase and sales.

2) Those who are dealing with commerce should have good hand writing, faultless calculation, and purchasing skills. They should always remember the principle that big losses always come from small mistakes.

3) Those who don't have an accounting book will be like those who are lost in the wind.

4) To obey the trade rules, a merchant should record all purchases and sales of the goods, their names and measurement units used, and the type of money (gold, silver) given or received.

It is understood from the Necessary Rules that this book is a kind of guidebook from Pacioli to the beginning of the 19th century. It is also understood that merchants had fulfilled functions of accountants before accounting practices evolved and accordingly accountancy became a separate profession.

2.3.Reminder Book

On pages 7-12 "The Reminder Book" is introduced. This book has the same features of the rough draft book. In the 19th century, because of the increasing importance of documents and information on accounting records, the reminder book is likely to be used in order to gather information about transactions and their accounting records. The information stated in "the Reminder Book" is illustrated as follows:

Example-1: *In the year 1830, if a business would like to be established for 20.000 kurus owner's equity, the recording entry should be as such:*

With a 20.000 kurus owner's equity, I alone or with a partner, would like to be engaged in business. 10.000 kurus of this owner's equity is hard cash and the other 10.000 kurus is in gold reserve.

Example-2: *The record entries made into the Reminder Book for the purchase made on January 2nd:*

Today, I bought one box of Havana sugar from Mr. X. The box totally weights 1.050 okka and the weight of the container is 50 okka. One okka is worth of 3 kuruº. So the total amount is 3000 kuruº. I made this purchase in hard cash and received 2 percent discount. Because of receiving this discount I paid 2.940 kurus to Mr. X. Then I load out the sugar into a container in my shop. I realized that weight of the container is 40 okka, not 50 okka. In this calculation, it means I purchased 1.010 okka sugars, not 1.000 okka, by paying 2.940 kurus. So I made a profit of 30 kurus.

Actually 1.010 okka sugar is worth of 2.970 kurus. But the merchant paid 2.940 kuruº for 1.010 okka sugars. So he made 2.970-2.940 = 30 kurus profit.

I also paid 15 kurus for purchase expenditure. So its total cost is 2.940 + 15 – 30 = 2.925 kurus.

The cost of goods purchased is shown as 2.940 + 15 = 2.955 kurus in the journal entry. A 30 kurus profit is not shown in the journal entry.

A beginner merchant should know that profit is made when purchasing. A beginner should also know that if weight of the container is more than figure calculated by seller, it should be objected to the seller to reduce price of the goods purchased.

Example 3: *On January 10th, I sold 200 okka sugars.*

Today I sold 200 okka sugars to Mr. X for 3 kurus 60 para. Thus I made total of 700 kurus trade off. Mr. X will pay his debts 8 days later, on January 18th.

As seen from the examples, the Reminder Book is a kind of rough draft book in which the information is baseline for the transactions to be recorded into the Journal and the Ledger.

2.4. Journal

Explanations about the journal are made on the pages 13-17 of the book. Before recording entries, following information about the journal is given:

The Journal is a separate book. The pages have to be divided by lines according to the operations. An example of this process will be shown later. Since the left side of the journal will be clean, the page number of the ledger will be written on this side. Two columns should be drawn on the right side of journal. The first column is created to be used for kurus and the other column is created to record the amount of the money. Every financial operation should be recorded with its date.

The Page numbers of journal should be marked consecutively. The term "journal" should be written on the top of every page. The name of the location and year of the trade should be written under the term journal. This should be followed by description regarding transaction recorded.

As given in the example, both into the Ledger and the Journal, the amount of money should be inserted twice. In the Journal, the money amount is expected to be written in between the parallel lines. On the contrary, for the ledger, the money amount is expected to be written between the columns on the right side. The entries should be made in the used currency unit.

To conduct the journal's entrée rules without any mistake, it is suggested that one should determine the place, where the stock and the money is spent. According to the example in the book, if you enter 20.000 kurus in cash to make a trade, cash will be debt and the man who put the money in the cash will be credit. Thus, when this amount is spent to buy stocks, cash will become credit and the stocks will become debit.

As has known, the most important section of the journal is the owner's equity. As has presented in the example, when 20.000 kurus owner's equity is put in cash, the owner's equity is credited and cash is debited. In the journal, this recording process is exampled as follows:

Cash (debited) owner's equity (credited)   20.000 kurus

Above mentioned illustration shows that cash is debited and owner's equity is credited. Also the amateurs are warned to record debited figure first and then entering credited figure into the journal. In other words, it should always be entered as follows:

Cash (debited) owner's equity (credited)

According to the book, reasonable description regarding transactions should be made under record(s) of relevant transaction in the journal. After these explanations about the journal, an illustration on journal records on the pages between 15 and 17 of the book is shown as follows.

1	**JOURNAL**		
	1830 IZMIR		
Page number of the ledger	**Record and description**	**Kuruş**	**Para**
	1 January		
1/2	CASH (……..) OWNER'S EQUİTY **(credited)**	20.000	
	İzmir Merchandising Company established with a 20.000 kuruş owner's equity		
	2 January		
3/1	SUGAR (……..) CASH **(credited)**		
	1010 okka sugars were purchased for 2.940 kuruş in cash with 2% discount. 1 okka is worth of 3 kuruş.	2.940	
3/1	SUGAR (……..) CASH **(credited)** (paid for expense)	15	
	Purchasing expense is 15 kuruş		
	5 January		
4/1	COFEE (……..) CASH **(credited)**		
	2.000 okka coffees were purchased in cash with 4% discount. 1 okka worths 4 kuruş	7.680	
4/1	COFEE (……..) CASH **(credited)** (paid for expense)	20	
	Purchasing expense is 20 kuruş		
	10 January		
5/3	Mr.X (……..) SUGAR **(credited)**	700	
	A 200 okka sugar was sold on credit. The term is 18 January. *Price of 1 okka sugar is 3 kuruş and 60 para*		
	15 January		
1/4	CASH (……..) COFEE **(credited)**	2.250	
6/4	CLOTH (……..) COFEE **(credited)**	2.250	
	A 500 okka coffee was sold for 4.500 kuruş. Price of 1 okka coffee is 4 kuruş and 60 para. Half of the sale was made in cash and the rest was made in 100 rolls of cloth.		
	18 January		
1/5	CASH (……..) Mr. X **(credited)**	700	
	700 kuruş was collected from Mr. X.		
	20 January		
7/1	HANDKERCHIEF (……..) CASH **(credited)**	1.500	
	100 rolls of Indian handkerchief were purchased for 3000 kuruş. 1500 kuruş of this purchase was paid in cash and the other half was on credit.		
	25 January		
8/1	RICE (……..) CASH **(credited)**	1.450	
	A 2.900 okka of rice was purchased for 1.450 kuruş in cash.		
8/1	RICE (……..) CASH **(credited)** (paid for expense)	33	
	Purchasing expense is 33 kuruş		
	28 January		
1/8	CASH (……..) RICE **(credited)**	112	60
	A 150 okka of rice was sold for 112 kuruş and 60 Para in cash.		
9/8	PAPER (……..) RICE **(credited)**	112	60
	A 112 kuruş and 60 para worth of rice is bartered for paper.		

	28 January		
1/8	CASH (……..) RICE **(credited)** *A 150 okka of rice was sold for 112 kuruş and 60 Para in cash.*	112	60
9/8	PAPER (……..) RICE **(credited)** *A 112 kuruş and 60 para worth of rice is bartered for paper.*	112	60
9/1	PAPER (……..) CASH **(credited)** (paid for expense) *Purchasing expense is 3 kuruş.*	3	
	30 January		
7/1	HANDKERCHIEF (……..) CASH **(credited)** *The rest of payment is made for the handkerchief purchased in 20 January*	1.500	
1/3	CASH (……..) SUGAR **(credited)** *A 600 okka sugar was sold for 2.100 kuruş in cash. Price of 1 okka sugar is 3 kuruş and 60 para*	2.100	

As seen from the journal records, the term "debited" is not used in the journal entries. But the term "credited" is used in the journal entries. Additionally the figures of the credit and debit accounts are not recorded in separate lines. The two transactions taken place at the same date are recorded in the same journal entry as one journal entry.

In the Western countries of the same era, the two transactions taken place at the same date are recorded as separate entries (Güvemli 1997:33).

2.5.The Ledger

The knowledge about the ledger is given on the 18th and 19th pages of the book. The examples on transferring and classifying data by posting from the journals to the ledgers are given on the 22nd page. The knowledge given on 18th page is as follows:

It is possible to see transactions regarding sales and purchases of merchandise, which are recorded in the journals, as a listed form in the ledger. The ledger is mirror of a merchant.

Page size of the ledger is the same as the journals. Two pages are used for each account such as customer, seller, merchandise, cash, and owner's equity. Page number of these two pages must be the same. 1,1; 2,2; 3,3 etc. Each account has two sides one of which is called as debit and other is called as credit. Debit refers to the left side of the account and credit refers to the right side. The name of the account such as name of customer, merchandise and supplier etc. and others are written in the middle of these two pages. The terms debit and credit are written on the head of amount (money) column (kurus[1] and para[2]). A short explanation related to transaction is made on explanation column.

Date of transaction is written on the column which is at the left side of description column.

Page number of the ledger is written on the column which is at the left side of the journals.

Descriptions written on the ledger shortly must be seen from the journals in detail. A column is added on the ledger headed as "G" in order to make this action easy.

The examples on transferring and classifying data by posting from the journals to the ledgers are as follows:

1				**Cash**							1
				Debit						**Credit**	
Date 1830	Description	G	Journal page no	Amount Kuruş	Para	Date 1830	Description	G	Journal page no	Amount Kuruş	Para
1 January	Owner's equity credited upon investment for trade	1	2	20.000	-	2 January	Sugar purchased in cash	1	3	2.940	-
15 January	Coffee credited for coffee sold	2	4	2.250	-	2 January	Expense paid for sugar purchased	1	3	15	-
18 January	Customer X credited for sugar sold	2	5	700	-	5 January	Coffee purchased in cash	1	4	7.680	-
28 January	Rice credited for rice sold	3	8	112	60	5 January	Expense paid for coffee purchased	1	4	20	-
30 January	Sugar credited for sugar sold	3	5	2.100	-	20 January	50 packet of handkerchief purchased in cash	2	7	1.500	-
						25 January	Rice purchased in cash	3	8	1.400	-
						25 January	Expense paid for rice purchased	3	8	33	-
						28 January	Expense paid for paper bartered	3	9	3	-
						30 January	Payment of 50 packet of handkerchief purchased on 20 Jan.	3	7	1.500	-

2	**Owner's equity**										2
				Debit						**Credit**	
Date 1830	Description	G	Journal page no	Amount Kuruş	Para	Date 1830	Description	G	Journal page no	Amount Kuruş	Para
						1 January	Investment in cash	1	1	20.000	-

4	**Coffee**												4
					Debit							**Credit**	
Date 1830	Description	G	Journal page no	Unit (okka)	Amount Kuruş	Para	Date 1830	Description	G	Journal page no	Unit (okka)	Amount Kuruş	Para
5 January	Cash credited for coffee purchased	1	1	2.000	7.680	-	15 January	Coffee sold in cash	2	1	800	2.250	-
5 January	Cash credited for expense	1	1	-	20	-	15 January	Clothes bartered by coffee	2	6	800	2.250	-

5	**Customer X (Accounts Receivable)**												5
					Debit							**Credit**	
Date 1830	Description	G	Journal page no	Unit (okka)	Amount Kuruş	Para	Date 1830	Description	G	Journal page no	Unit (okka)	Amount Kuruş	Para
10 January	Sugar credited for sugar sold (sales on account) The term of sales is 18 January	Y1	3	200	700	-	18 January	The collection of 700 kuruş for sugar sold	2	1	200	700	-

6	**Cloth**												6
					Debit							**Credit**	
Date 1830	Description	G	Journal page no	Unit (box)	Amount Kuruş	Para	Date 1830	Description	G	Journal page no	Unit (box)	Amount Kuruş	Para
15 January	Coffee credited for barter by 100 rolls clothes	2	1	100	2.250	-							

7	**Handkerchief**												7
					Debit							**Credit**	
Date 1830	Description	G	Journal page	Unit (packet)	Amount Kuruş	Para	Date 183	Description	G	Journal page	Unit (packet)	Amount Kuruş	Para

8	**Rice**												8
					Debit							**Credit**	
Date 1830	Description	G	Journal page no	Unit (okka)	Amount Kuruş	Para	Date 1830	Description	G	Journal page no	Unit (okka)	Amount Kuruş	Para
25 January	Cash credited for rice purchased	3	1	2.900	1.400	-	28 January	Rice sold in cash	3	1	150	112	60
25 January	Cash credited for expense	3	1		33	-	28 January	Paper bartered by rice	3	9	150	112	60

9	Paper												9
					Debit							Credit	
Date 1830	Description	G	Journal page no	Unit (roll)	Amount Kuruş	Para	Date 1830	Description	G	Journal page no	Unit (roll)	Amount Kuruş	Para
28 January	Rice credited for barter by paper	3	8	60	112	60							
28 January	Cash credited for expense	3	1		3								

Some explanations are presented in the book after these ledger records as follows:

Transactions are recorded in the ledger monthly through one year.

Sum of each page of the ledger is transferred to the following page when the page recorded is filled. When the sum of debit and credit of an account are equal to each other, this account is closed. Otherwise, the balance of the account refers to profit or loss. Debit balance refers to profit and credit balance refers to loss.

Example:

Cash					
Debit					**Credit**
	Kuruş	Para		Kuruş	Para
	20.000			2.940	
	2.250			15	
	700			7.680	
	112	60		20	
	2.100			1.510	
	-			1.400	
	-			33	
	-			3	
	-			1.500	
Total	**25.162**	**60**	**Total**	**15.091**	-
				10.071	**60**
Total	**25.162**	**60**	Total	**25.162**	**60**

When closing cash account, it is seen that cash account has a debit balance of 10.071 kurus 60 para.

We can also find the balances of sugar, coffee, and rice accounts in order to calculate how much of the said merchandises have been sold and how much of these merchandises are on hand.

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Sugar							
Debit							**Credit**
	Unit (Okka)	Kuruş	Para		Unit (Okka)	Kuruş	Para
	1.010	2.940	-		200	700	-
		15	-		600	2.100	-
Total	**1.010**	**2.955**	-	**Total**	**800**	**2.800**	-
				Debit Balance	210	155	-
Total	**1.010**	**2.955**		**Total**	**1.010**	**2.955**	

It is understood that 1.010 okka of sugar is at a cost of 2.955 kuruº. 800 okka of sugar was sold with a sales price of 2.800 kurus. Thus balance of the said merchandise is 210 okka which is at a cost of 155 kurus. This means that we got so many earnings from this merchandise.

The same calculations can be made for coffee and rice.

Coffee							
Debit							**Credit**
	Unit (Okka)	Kuruş	Para		Unit (Okka)	Kuruş	Para
	2.000	7.680	-		500	2.250	
		20	-		500	2.250	
Total	2.000	7.700	-	**Total**	1.000	4.500	
				Debit Balance	1.000	3.200	
Total	**2.000**	**7.700**		**Total**	**2.000**	**7.700**	

Rice							
Debit							**Credit**
	Unit (Okka)	Kuruş	Para		Unit (Okka)	Kuruş	Para
	2.900	1.400	-		150	112	
		33	-		150	112	
Total	2.900		-	**Total**	300	224	
				Debit Balance	2.600	1.209	
Total	**2.900**	**1.433**		**Total**	**2.900**	**1.433**	

Customer X account is an example of closed account as seen below

Customer X					
Debit					**Credit**
	Kuruş	Para		Kuruş	Para
	700	-		700	-
Total	**700**	-	**Total**	**700**	-

It is understood from Handkerchief, Paper, and Cloth accounts that the said merchandises were not sold at all. Indeed it is seen from these accounts that there is no any record on credit sides of them.

When any merchandise account has no balance at the end of month, that is, all of them are sold, the said account is closed. Profit or loss raised from the merchandise sold must be transferred to a new page of the ledger. Debit entry is made for profit and credit entry is made for loss.

You must calculate all balances of the accounts by subtracting debit total from credit total in order to prepare a balance sheet at the end of the year. If you make a profit you must write it under owner's equity.

It is seen that the inventory concept is not mentioned in the book. Beside this, merchandise on hand is not valuated with its cost value. Instead, merchandise on hand is priced according to debit balance of the merchandise account.

Additionally, because of the fact that *debit entry is made for profit and credit entry is made for loss in a new page of the ledger,* balance sheet is prepared in a manner which is not in accordance with known preparation way of balance sheet.

2.6. The Balance Sheet

The explanations regarding balance sheet are presented under this title as follows:

Cash and merchandise accounts must be closed at the end of the year in order to calculate how much a profit or loss is made as a result of purchase and sales of merchandise. This type of account closures defines the balance sheet. Let us show it through an example.

Let us assume that a merchandising business in Izmir has 20.000 kurus of owner's equity on 1 January 1830. Let us also assume that owner's equity increased by 26.000 kurus during 1830. Both sides of the equation (balances of all accounts at the end of the year) show this change as follows:

Accounts	Balances of accounts (kuruş)
Cloth	5.000
Coffee	3.000
Sugar	5.000
Paper	3.000
Handkerchief	3.000
Cash	15.000
Customer's accounts	4.000
Purchase and selling expenses	2.000
Owner's individual expenses	6.000

The balance sheet of the business is prepared by listing accounts in alphabetical order (according to Turkish language) as follows:

BALANCE SHEET			
IZMIR MERCHANDISING BUSINESS			
31 December 1830			
Debits			**Credits**
	Kuruş		Kuruş
1 January, Owner's equity credited	20.000	Cloth	5.000
		Coffee	3.000
Merchandise on hand and profit credited	26.000	Sugar	5.000
		Paper	3.000
		Handkerchief	3.000
		Cash	15.000
		Customer's accounts	4.000
		Purchase and selling expenses	2.000
		Owner's individual expenses	6.000
Total	46.000	Total	46.000

This balance sheet indicates that the business made a profit of 26.000 kurus. Debit balances of the accounts were shown on the right hand side of the balance sheet. If you subtract the expenses you incurred (2.000 + 6.000) from the profit you gained (26.000), there will be assets of 38.000 kurus on your hand and your net profit will be 18.000 kurus.

Conclusion

In this study we introduce a course book on double-entry accounting in the Ottoman era. As seen from the explanations and examples given in the said course book, entries on the journal were made without using debit and credit sides, but with only descriptions regarding transaction. The descriptions regarding transactions were written in the journal entries without using term "debited" but by using the term "credited".

On the other hand, the term "debit" and "credit" were written on the both left and right sides of the top of the ledger. The term "credited" was used in the descriptions made on the debit side of the ledger. However the term "debited" was not used in the descriptions made on the credit side of the ledger. These transactions were recorded without using any document, but by using a book called as reminder book.

Thus it can be suggested that in spite of some lack points, entries of transactions were in part in accordance with double-entry accounting. However, closing entries were not made at the end of the year by using reversing entries.

Preparation of the balance sheet was also in accordance with double-entry system, but in different form. That is, the assets, debits, owner's equity and expenditures were placed on balance sheet according to credit or debit sides of balances of related accounts. Actually form of the balance sheet in this book partially looks like reversing entry.

Additionally because of the fact that the expense and revenue accounts were not used, profit and loss accounts did not exist to show profit or loss of business separately. Accordingly, as mentioned above, the expenses incurred were placed on the right side of the balance sheet. This means that income statement was not included in the book.

Whereas, many accounting books based on double entry system and including closing entries, profit and loss accounts, income statement and reversing entry were written in some Western European countries in the period after Luca Pacioli (1494) (Güvemli, 1998, pp.93-96).[5] Brief information about the said books is presented under Notes.

In spite of the fact that some accounting books based on double-entry accounting and including closing entries, profit and loss accounts, income statement and reversing entry were written in Western European countries in 1500s, that is, before this book was written, this book written for the Armenian users in the Ottoman lands had partially reflected the dissemination of double-entry accounting system probably due to lack of communication facilities in that era.

On the other hand, as Guvemli states (1998, p.94), any written source on accounting might not have been produced in Anatolia because of accounting education based on only apprentice training with master. Accordingly double-entry accounting might not have been known and used widely in the Ottoman era until 1860s, that is, about 350 years after Luca Pacioli.

Notes

1-Tanzimat Fermaný (The Reform Declaration): after the death of Mahmud the Second in 1839, Abdulmecit reigned. Abdulmecit declared a decree that reorganized the establishment of the state. This decree was announced by Mustafa Resit Pasha, drafter of the decree, on 3 February, 1839 in Gulhane before the Sultan, ambassadors and the public. In the decree, the Sultan indicated the need of passing new law for a better administration of the state.

2-1 Okka is equal to 1, 35 kg

3-Kurus is a silver coin of the Ottomans (The Ottoman currency)

4-Para is the Ottoman currency. 1 kuru° is equal to 40 para.

5-Some documents used by a company and contents of some books written after Paciolo:

Joann Gotlieb's book (Ein teutsch verstendig Buchhalten für Herren oder Geselschaffter Inhalt wellischem Process..., published in 1531-Germany): all accounts related to merchandising accounting were included in this book. 2nd edition of this book (1546) contained reversing entries.

Jan Ympyn Christoffels's book (published in 1547 in Belgium): some transactions and their entries were illustrated in this book.

Dominico Manzoni's book (published in 1540 in Italy): He developed Paciolo's double entry system. He was the first person who numbered entries of the journal and used these numbers on the ledger.

Alvise Casanova's book (published in 1558 in Italy): Opening and closing balance sheet were included in this book. In this book, profit/loss of the year was placed into owner's equity account.

Pierre de Savonne's book (published in 1567 in Belgium): In this book, income statement and related accounts were included. In this book, it was explained that the reversing entries were made as last entry in the journal at the end of the year.

Vlaemminck stated with a company example that a proper accounting system was started to be used as of the beginning of 16th century. That company's name was Affadiati and was operating in Lyon, Anvers, and, Lisbon. It is known that some documents belonging to Affadiati exist in the archive in Anvers. These documents are as follows:

1- The journal from 16 May 1538 to 10 September 1540.
2- The ledger from 30 April 1548 to 30 April 1551
3- The ledger from 27 May 1558 to 31 May 1556
4- The ledger from 31 May 1556 to 5 December 1558
5- The inventory book (indicating physical inventory counts) for the year 1558
6- Many balance sheets and various documents.

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