

The Practice of Merdiban Method in State Accountancy According to Ottoman Documents¹

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Abstract

A single entry accounting method called *Merdiban* was used mainly for state accounting purposes in Middle East for a thousand years. It is estimated that the Ottoman State learned the method from the Ilkhanate State. They have improved and used it until the year 1879 A.D. Various documents exist in the Prime Ministry Ottoman Archives in Turkey related to the different practice areas of the *Merdiban* method. Practice areas include tax farming (Mukataa), charitable foundations (Waqfs), estate accounting (Tereke) and specific needs accounting. This paper examines this accrual based accounting method in all those practice areas in order to understand the statist accounting cycle in a centralized Islamic environment. Accounting records dating 17th century are benefited in the examination process.

Keywords: Merdiban method, Ottoman Empire, accounting history.

Jel Classification: M41, M48

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Özet

Merdiban adı verilen tek yanlı kayıt yönteminden Ortadoğu'daki devlet muhasebesi uygulamalarında yaklaşık bin yıl boyunca faydalanılmıştır. İlhanlı Devleti'nden alındığı tahmin edilen bu yöntem değişen koşullara göre zaman içerisinde geliştirilmiş ve 1879 yılında yerini çift yanlı kayıt yöntemine bırakmıştır. Yöntemin devlet muhasebe organizasyonu içerisinde farklı uygulama alanları bulunmaktadır. Bu uygulama alanları, bir vergi toplama yöntemi olarak dikkat çeken *mukataa* kontratları muhasebesi, vakıflar muhasebesi, tereke muhasebesi ve özel ihtiyaçlar için muhasebe uygulamaları olarak açıklanabilir. Çalışma, merkezîyetçi bir yapıya sahip olan ve tahakkuk muhasebesinin benimsendiği devlet muhasebe organizasyonu içerisinde sözü edilen farklı muhasebe uygulamalarını 17. Yüzyıla ait arşiv dokümanlarından faydalanarak analiz etmeyi amaçlamaktadır.

Anahtar Kelimeler: Merdiven yöntemi, Osmanlı İmparatorluğu, muhasebe tarihi.

Jel Kodu:M41, M48

1. Brief Economic History of the Ottoman State in 17th Century

This study aims to examine different accounting practices of the *Merdiban* method in 17th Century. But, before examining the accounting records it is important to have brief knowledge on the economic and even politic conditions of the time. Therefore, the following two sections intend to give necessary historical information regarding the era of the accounting records.

The first section examines the effects of statist understanding of the Ottoman State on accounting practices and on private sector enterprises. The second

section deals with the economic conditions of the State on a macro level.

1.1. Effects of Statism on Accounting Practices

Accounting exists in a country for individuals, institutions and the state. However, no accounting records of individuals or private enterprises were encountered during the 17th Century.

Statist attitude of the Ottomans led people not to disclose their richness, as they believed that only a limited wealth was allowed. Properties, which constituted an important source of income for the State, were mostly rented for 3-year periods. The tenants as the manager of financial institutions like mines.

In order for the commercial relations to become institutionalized, commercial enterprise is needed. This institution could be commercial, industrial or one that offers services. The leading reason why the private sector enterprises in the Ottoman State could not develop their accounting record is the fact that they could not expand in size. In other words, it is the lack of capital accumulation.

Products with expansive markets such as salt, candles etc. were produced by state institutions which are similar to financial state institution of the present day and military clothing, materials, guns and ammunition were also produced in state institutions. The production of these essential goods by the state constituted an obstacle in front of the private sector to set up larger enterprises where they could achieve the required capital accumulation.

Perception of statism in the Ottoman State was based on the protection of the consumer rather than encourage production. That is why the state regulated prices (*narh*) always had an extensive field of practice. Prices were

determined through suppression rather than competence. Such a perception was doubtlessly not encouraging for mass production except for the guild (*lonca*) craftsmen who made production at low levels.

Brotherhood (*ahilik*) organization was replaced by the guild system in 16th Century. It had rigid rules. Guild craftsmen in each region were dominant only in their own region. They produced for their own small region. The market was shared according to production. It can be put forward that such conditions of the guild system had a preventive effect on production for an expansive market and so capital accumulation.

Capital accumulation was achieved on a limited extent by the minorities who faced confiscation from time to time. However, as a result of confiscation, also the minorities did not have the opportunity to develop recording systems of their commercial activities. It cannot be a coincidence that the first accounting records of private sector enterprises survived until the present day were kept by minorities and first accounting books were written by them.

1.2. Economic Structure

Historians define the period between the years of 1579 and 1863 as the stagnation period of the Ottoman State. In the second half of the 17th century, the expansion of the Ottomans who had continuously widened its borders until the Siege of Vienna in 1683, reached its final size and the income attained through wars came to a halt.

The State seemed to have a self- sufficient financial structure. They had iron, silver and copper mines. There were mints, which coined silver *sikke*² in some

2) *Sikke* is word used for old coined money.

of these mines. State run them either by renting or appointing its officers called *emin*³ and accounting records were kept in a tidy manner. State had a developed textile industry. Cloths, velvet and silk fabrics and countless other fabrics were woven in Anatolia. It is also known that the woolen cloth production in Ankara region dates back to these years and the European merchants purchased these clothes on site (Guvemli, et al. 2008: 410).

However, not everything was smooth about the economic climate. Precious mines that came to Western Europe from America and Africa helped the economies of these countries to overwhelm the Mediterranean trade and the economies of the countries, which benefit from it. These newly provided opportunities affected the financial and political balance of the world. Commercial activities in Europe ascended in an unprecedented manner. When changes were made on the monetary settings in addition to these developments, prices rapidly went up. Historians call this chain of events as the “price revolution”.

Naturally the Ottoman Empire was affected by this price revolution. Inflation broke out as a natural consequence of this increase. As the taxes were determined in advance by the state, a serious diminution in the taxes, especially in those collected in cash was faced as a result of inflation (Çızakça, 1980).

New tax collection procedures occurred as a result of financial crisis throughout the State in the 17th Century. A tax collection system called *İltizam* was introduced. This tax collection system was practiced with contracts called *Mukataa*. The features of these contracts are explained in this study by benefiting from specific accounting records.

Various taxes occurred during the 17th Century. The State entered a long period

3) *Emin* is the person who is entrusted with the goods.

of wars against countries such as Austria, Venice, Poland, Russia and Iran that were considerably costly. The financial burden of the Ottoman treasury grew. The budgets had begun to show more deficits in 17th Century. An extraordinary tax called help for war tax (*Imdad-i Seferiye*) is was introduced. Also, help for peace tax (*Imdad-i Hazariye*) was introduced as well. It was collected in cash for once in peace times. Shortage tax (*Avariz*) was the one that is collected in extraordinary situations in order to provide for the requirements of the army since the 16th Century but became permanent due to the everlasting wars in the 17th Century. As an example of the importance of those taxes, the budget of the year 1692 was 828 million akces, and the share of *Avariz* tax within the budget was 188 million akces⁴ (Salihlioğlu, 1991: 110).

2. The Merdiban Method

The *Merdiban* method is a state accounting method. It was born during the Abbasid era (770-1258). It is known that a Mongol Han, Hulagu conquered Baghdad and put an end to the Abbasid reign in 1258 A.D. Hulagu took the method from the Abbasids and brought it to the Ilkhanate State (1256 – 1353), which was established in todays Iran. Again, the method was used for state accounting purposes. During its initial years, Ottoman State (1299 – 1922) headed towards west and in order to secure their eastern borders, they paid tax to the Ilkhanate State. It is presumed that the Ottoman accountants learned the method during their financial relations with the Ilkhanate. The method was again used until 1879 A.D. for state accounting purposes. The Ottomans improved the method in years due to their changing needs in state accounting (*Guvemli and Guvemli, 2007*).

The word *Merdiban* means stairs. The total amount is written on top

4) *Akçe, akcha* or *akche* is the chief monetary unit of the Ottoman State.

and the sub-amounts are lined one under the other. This figure looks like the rungs of a stair. The name *Merdiban* was given by the Ilkhanate State. This is understood from the translations of four accounting education books written by the Ilkhanate State between the years 1309 and 1363 (see *Yıldız and Guvemli, 2011*). Ever since, no other explanatory book has been found related to the *Merdiban* method. The Ottoman State did not use the word *Merdiban*. They used the phrase *muhasebe-i umumiye*. It is presumed that the Ottoman State thought it would be unnecessary to write accounting education books. The reason would be that the accounting education was followed within master-apprentice relationship for centuries.

Another point worth mentioning related to the *Merdiban* method is the *siyakat* script. The method was implemented with *siyakat* script and numerals. *Siyakat* script is present within Arabic, Persian and in Ottoman Turkish language. This script omits punctuation and can be likened to a sort of steno. In accounting, it is important to fit a large amount of information in a small space. Normally Arabic and Persian letters have punctuation marks on both top and bottom. When text is written in a compact manner it is not possible to tell if the punctuations are on the bottom of the characters above or are at the top of the characters below, causing confusion and difficulties in reading. In *siyakat* script, characters are written without these punctuation marks so it is possible to record large amount of information in a confined space. The second reason for *siyakat* being used in state accountancy was the secretive nature of State's fiscal and foreign affairs (*Guvemli et al, 2008: 78*).

There were not many examples regarding the use of this method in the private sector because, due to the dominance of public economics, there were not many private companies in the Ottoman State. Small-sized private firms were using simple accounting methods for their records. On the other hand, large private firms were in the hands of foreign capital control (Örten

and Torun, 2008: 285). These firms were keeping their records in the native language of the companies' founders and were using the accounting methods, which were being used in those native countries. As long as these firms paid their taxes regularly and obeyed the internal laws of the Ottoman State, the state never interfered in them (Güvemli and Güvemli, 2006: 276). Therefore, it is crucial to mention that the accounting and bookkeeping systems practiced by the Ottoman State possess the characteristics of a centralized administrative system.

3. Structure of the Ottoman State Accountancy

State accountancy in the Ottomans was organized under the institution titled *defterdarlık*⁵. The head of this institution is the *defterdar*. He is the one who owns journals, which further means the one who owns accounting journals. Today, *defterdar* is the person who is in the representative position of the Ministry of Finance in provinces in the Turkish Republic. In the Ottomans there were *defterdarlar*⁶, and also a *basdefterdar*⁷. *Basdefterdarlar* owned the position of the Minister of Finance, and *defterdar* is his assistant. Throughout the history, there were three or five of them at most. They were in the central governance of the organization. Later on, there were assignments to big provinces with this title.

In the central accounting organization of the Ottomans, Anatolian⁸ *defterdar* and Rumelian *defterdar* were assistants of *basdefterdar*. These are the two titles that continued to be used through the middle of 19th century.

5) *Defterdarlık* comes from the word *defter*, which means *journal*.

6) When "lar" is added to the end of a word like *defterdar*, it becomes plural.

7) "Bas" means "head", so *basdefterdar* means head/chief of *defterdar*'s.

8) Anatolia, which is also known as Asia-minor is the land of the State in Asia.

There were accounting departments related to these *defterdarlar*, and there were also accountants who worked with titles such as *halife*, *bařhalife*. The training was fulfilled with the relationship of master-apprentice and accountants were trained under this order. In parallel to the organization in the center, there were accounting organizations in the provinces as well (*Guvemli 1998: 111*).

The centralization understanding in the Ottomans required strong accounting organization and structure in the center. It has been understood that accounting departments related to the *defterdar* both showed changed in time and generally have the structure specified below.

Head Accounting (Basmuhasebe) Department: It is affiliated to the *basdefterdar*. The responsibility of daily book (*Ruznamçe*) lies here. *Başdefterdar* follows the accounting records and daily accounting processes from this book, and the recording of all of the processes in the daily book firstly enables the *basdefterdarlık*⁹ to have information in time. Moreover, periodic reports such as annual final account are prepared in this department.

*Mukataa*¹⁰ and *Jizya*¹¹ Departments: *Mukataa* and *jizya* revenues are the two biggest revenue resources of the state. A *Mukataa* contract shows the revenues that are provided from the rentals of the revenue places belonging

9) *Basdefterdarlık* is the office of the director of finance of a province. It can be considered as a revenue office as well.

10) One of the practical applications of the *Merdiban* method was the institution of *Mukataa* (*Muqata'ah*), which functioned as an instrument in financing state expenses. The *Mukataa* system was a form of tax collection where a district or individual agreed to pay the state a fixed sum in return for fiscal autonomy and limited state intervention.

11) *Jizya* is the tax that is received from the non-Muslims in return for not doing military service and for providing their safety.

to the state. *Jizya*, on the other hand, is the tax that is received from the non-Muslims in return for not doing military service and for providing their safety. The departments where these two incomes' books, which are at utmost importance invariably, are kept are the biggest departments of centralized accounting organization.

Departments Where the Soldier Expenses and Clerk Salaries are Followed: The departments where the salaries of soldier troops such as janissary, cavalryman (*sipahi*) and castle soldiers and the expenses of their weaponry, and the salaries of clerks have always been one of those departments which are at utmost significance at all times within the centralized organization.

Has¹² and Waqf¹³ Accounting: The department where the income and expense accountings of *has* and *waqf* are kept.

Departments Where the Records of Palace Kitchen and Stables are kept (Haremeyn): The departments where the expenses of living areas belonging to the Sultan (*padisah*) and state officials such as *harem*^{14*} and service places such as kitchen and stables are followed have also always been important.

Two important aspects need to be specified regarding the departments where income and expense record were kept and which were written above. One of them is that there has been changes in the amount (around 20 or 30) and names of the accounting departments where government income and expenses were followed and whose importance have been specified above (*Guvemli 1998: 391-398*), and that the workload of accounting jobs whose intensity has

12) *Has* or *Haslar* (plural) are properties and lands that were allocated to state executives.

13) *Waqf* is a charitable, religious endowment ruled by state seniors.

14) *Harem* is the part of a house reserved for women and girls.

increased or has just arrived in accordance with the workload were pursued by transferring them to departments where the workload was less (*Guvemli and Gucenme 2002*). Under these circumstances, it is understood that in a department, recording processes of other subjects were pursued even though the job description differs from the related department.

The second aspect that needs to be dealt with is regarding the change that has been made in the accounting organization in the middle of the 17th century. Until this century, Anatolian *Defterdar* was managing the accounting departments related to incomes and expenses of the state in Anatolia and Arabian Peninsula. Rumelian^{15*} *Defterdar*, on the other hand, was managing the accounting departments related to the incomes and expenses in the European side of the state. This means that there was a geographic distribution in the accounting organization of the state. For this reason, they were established under the names of Anatolia *Defterdar* and Rumeli *Defterdar*. With the change in the 17th century, they changed the system by organizing under subjects and the basis of gathering each and every income and expense under one department was adopted. This way, for example, all Accounting of all *Mukataa* contracts were gathered under one *defterdarlik*. For instance, the expense records of all castle soldiers started to be kept under one *defterdarlik*. Both specialization was fulfilled and the gathering all the information together at the end of the year was made easier.

As specified above, central accounting in the Ottomans was in a strong situation, but accounting orders in the provinces were arranged in parallel of the centralized organization and organized in ways to produce information and send it to the center.

15) *Rumeli* is the land of the State in Europe.

4. The Features of the Accounting System

Accounting is a service industry. The job of accounting in the Ottoman State was to meet the recording needs of the state. When the subject is approached this way, it will be beneficial to address the points below, which affect the accounting system.

Accrual based accounting system was implemented in state accounting practices of the Ottoman State. The obligant is reported the tax amount that needs to be paid at the beginning of the year, and this amount is collected within the year periodically, and as the amount is collected, it is reduced from the debt held at the beginning of the year. For example, the amount that a region needs to pay regarding any tax is reported to the official of the region at the beginning of the year and the amount is recorded as debt in the account of the region. When revenue office receives payments from the region within the year, the debt is cleared.

When the new year comes (generally at the end of the ninth month) by adding the estimations to the incomes and expenses received and made respectively, an annual income and expense account is constituted temporarily. The date that this estimation is made is approximately one or one and a half month before the new year. Revenue office looks at these estimated calculations and tries to determine the amount that each obligant and region has to pay. After the determination process, the amount that has to be paid is reported to the obligant at the beginning of the new year. It should be stated that the annual calculation made pro forma are turned into precise calculations later on.

Within the scope of the principals mentioned above, principally, there are two groups of journals in the Ottoman state accounting. One of them is daily book (*ruznamçe*), the other one's are subsidiary books, which are

in the characteristics of general ledger accounts. The function of the daily book is to follow the daily incomes, expenses, and treasury activities. The function of the subsidiary books, on the other hand, is to follow the debt/credit relationship regarding the state payment places and income types. It is possible to explain the functions of the subsidiary books by dealing with *Mukataa* revenues. That is, income places of the state such as saline, lake and customs are given as rentals with a contract made under the *Mukataa* in return for a specific amount of money. *Multezim*¹⁶ gets his own payment from the rental place and pays the rest to the treasury. As the contract goes on, this process is done every year. *Multezim* would become indebted as the amount written in the contract. As the money comes, the debt is reduced and cleared. Hundreds of *Mukataa* contracts were signed regarding the income places scattered within the country. There is a big *Mukataa* department in the center. This big department is categorized into sub-departments according to the geographical regions such as Bursa¹⁷ *Mukataa*, Rumeli (Thrace) *Mukataa* and Istanbul *Mukataa*. At the end of the year, each department determined the collected amount or the amount that needs to be collected on the basis of the contract. The head of the *Mukataa* department provides the preparations annually and at the end of the year, all of the *Mukataa* revenues of the state are calculated as one total amount. These calculations are used in deducting the precise account and are also used in following the late *Mukataa* that needs to be paid. Finally, they are benefited in the planning of the total amount of next year.

16) *Multezim* was the term used for the individual, known as a tax collector, doing his duty on behalf of the Ottoman treasury on the basis of a contract.

17) Bursa is a city in northwestern Turkey. It was the capital of the Ottoman State between 1326 – 1365 A.D.

The sequence of action related to this process is as follows: Each revenue that is collected come and recorded to the daily book in the *defterdarlik*. From this record, the information is transferred to two places. First, treasury is informed that cash income record (cash account of the state) is completed. The second one is reporting the payment that has come to the *Mukataa* departments that it belongs to. The treasury records the collected money to treasury book (*sergi*) and reduces the debt of the *Multezim*. *Basdefterdar* follows these actions and when necessary, he prepares a weekly report to the Prime Minister (*Sadrizam*) as the Minister of Finance.

A document called *tahvil* is used in the information transfer process. In this document, the article number of the daily book is written. The amount is written already and other necessary information is written as well. After making the necessary records, the person who received the information transfer document keeps it in his own department in case of a disagreement.

In Annex 1/A, there is a photocopy of a daily journal's (*Ruznamçe*) 182th page related to the year 1634 or 1635 A.D. This piece of paper belongs to the seventh day of the fourth month (*Rebiülahir*). The English translation of the eleventh article of this daily journal is mentioned in Annex 1/C.

In Annex 2/A, there is the photocopy of the front page and the back page of an information transfer document prepared for the *Mukataa* department by an accountant (BOA BRZ 28). Two faces of this document have information regarding accounting. Individuals who work with the daily journals wrote the front page. They sealed the front page and sent it to the *Mukataa* department. Individuals who work with the *general Mukataa journal*¹⁸ wrote the back

18) *General Mukataa journal* is the journal that handles all the incoming documents to the department. There is also a sub department, which handles the records of *Mukataa* of Ahyolu docks. This document is sent to this department as well, and this department reduces debt of *Multezim* from *Mukataa* of Ahyolu docks.

page. The document is kept within the *Mukataa* department. The English translation regarding this record stream is addressed in Annex 2/C.

Recording of this document to the journal of the department of *Mukataa-i Evvel* is examined in Annex 3. Payments received from different *Mukataa's* are recorded in this journal. First of all, financial information would be recorded in this journal, then it would be send to sub-accountant who works at the *Mukataa* contract of Ahyolu docks.

In Annex 3/A, there is the photocopy of a journal related to the *Mukataa* department. Incoming information to the department of *Mukataa-i Evvel* regarding payments from all *Mukataa* contracts were recorded to this journal. Monthly total of this journal shows the total revenues from *Mukataa* contracts held at the department of *Mukataa-i Evvel* (*BOA Kepeci, 5022*). The (x) marked article is related to the *information transfer document*, which initially came from the daily journal. The transcription of this article is shown in Annex 3/B. The English translation of this article is addressed in Annex 3/C.

There is another issue that has to be explained. All *Mukataa* contracts of the Ottoman State were kept in not only one department but in three or four different departments. Department of *Mukataa-i Evvel* is probably the biggest department. This department monitors *Mukataa* contracts of the Marmara region including the city of Bursa. This large *Mukataa* department has a general journal and all revenue information is recorded firstly to this journal.

There are mainly two reasons for recording information at the general ledger firstly. First reason is to check the sub-departments. If any dispute occurs, general ledger recordings and sub-department journal recordings will be crosschecked. The second reason is that, it allows the preparation of monthly and yearly records in a short time period. Because, a controlled

general recording order would give assurance for the total amount of all *Mukataa* contracts within this big department.

Department of *Mukataa-i Evvel* will determine revenues from *Mukataa*'s as monthly and yearly from the general ledger. Other three big *Mukataa* departments and this department's revenues will be brought together and will count as one final *Mukataa* revenue account. The process of establishing this final account is considered as reporting. Reporting system, which is gathered from accounting records is mentioned in the below section.

5. Reporting System

5.1. Periodical Reporting System

There are two types of reporting in the Ottoman state accounting depending on the *Merdiban* method. The first one is periodical reporting order. The second one is the special reports that are prepared under extraordinary circumstances.

Periodical reporting means the reporting of the accounting records of departments monthly and annually. This reporting is prepared as a result of an information flow from downwards to upwards. For example, in the example shown in Annexes, *Mukataa-i Evvel* department prepares the monthly and annual results of the general ledger in which the collected money from the *Mukataa* that accounting it holds is recorded. The report prepared annually would be used in the preparation of reports of other *Mukataa* departments and annual budget realizations. Preparation of the annual budget realization is made by the Head Accounting Department related to the Minister of Finance (*Basdefterdar*). All main departments and *Mukataa-i Evvel* department as well send the prepared periodical report to the upper department. Head Accounting

Department prepared the annual income and expense budget realization of the state.

It is convenient to mention that the Ottomans prepared the annual precise/final account for two reasons. One of them is presenting of the annual income and expenses as of main income and expense elements. Comparative assessment of the man income and expense elements is made. Moreover, this prepared table is compared to the last year's data and the developments are evaluated.

The second purpose is that by benefiting from the information in this table, the necessary instructions are given for them to present the income and expense accruelements at the beginning of the new year which initially belongs to the next year, and thus to do the necessary accruelement processes (accruelements of the tax incomes to be collected from the obligants within the year and the accruelement of the payments to be made). Due to the application of accrual based accounting in the Ottomans, this second purpose is more important because accrual based accounting requires the notification of the amounts that will be collected the next year as of income and expense items to every department. However, the Ottomans do not care about the estimated final calculation belonging to the next year, that is addressing the next year's budget as a whole. Budget preparation is out of the question. In this situation, it is the conveyance of the information which is aimed at tax obligants and expense places to the related departments is what is of great importance and not the budget preparation and presenting the annual total income and expenses.

If the examples in Annexes are addressed, it is evident that the important aspect regarding the *Mukataa* of *Ahyolu* docks is in the accruelement of the amount that is to be paid by the *Multezim* next year at the beginning

of the new year. Therefore, the duty of accrual based accounting is to report the amount of money that needs to be paid within the year by the debtor of *Mukataa* of *Ahyolu* docks at the beginning of the new year. It is the duty of the head of the *Mukataa-i Evvel* department to report the debtor his debt at the beginning of the new year.

Regarding the periodical reporting, the facts that constitute the main income and expense of the Ottomans annual final calculation will be dealt with. In other words, the grouping of income and expense amounts coming from the departments will be shown in this paper. These elements are income and expense elements that are non-changing through centuries and generally continuous.

Income elements that are generally shown in annual final accounts are as follows (*Guvemli, 1998*).

Income elements in the yearly final accounts of the Ottoman State:

1. *Mukataa revenues of Haremeyn*

(Revenues of the rental places of the State's such as lakes, mines and customs.)

2. *Mukataa revenues kept in the department of Mukataa-i Evvel.*

3. *Mukataa revenues of Avlonya.*

4. *Keefe and Istanbul Mukataa revenues.*

5. *Jizya tax revenues.*

6. *Revenues of Haremeyn accounting*

(Revenues from places ruled by state officials.)

7. *Mining revenues*

8. *Has revenues*

(Revenues from agricultural estates.)

9. *Agnam tax revenues*

(Revenues from stockbreeding.)

10. *Revenues from uncollectible claims (mevkufat).*

11. *Various revenues in small amounts.*

12. *Revenues from deductions of counterclaims.*

(Revenues that do not come directly to the treasury but spent in the place of occurrence.)

The below section explains the data in the table above in details. Some of the elements regarding the arrangement of annual final calculation is also addressed below.

1. These income elements depict the income elements of the Ottomans in the 17th and 18th centuries.

2. The monetary unit that is used in the preparation of the annual final calculation is *Gurus*. The chief monetary unit of the State is *Akçe*. 120 *Akçe* equals to one *Gurus*. *Gurus* is used in annual income and expense with the purpose of compression.

3. It is known that *Jizya* and *Mukataa* revenues constitute a big part of the State revenues. *Haslar* are the revenue places of the State that are provided to the use of certain individuals.

4. *Mevkufat* revenues are the cash collected by the State from uncollectible claims.

5. Final calculation revenues of the State consist of the amount that enters the treasury and the amount that is left over the reduction of the spent

section where revenues emerges. It would be convenient to mention that the amounts spent where the revenues emerges are depicted under the table as *deductible income*.

Expense elements that are in the annual final calculation of the Ottomans:

1. Salaries of Janissary and Cebeci (military) soldiers.

(Main elements of Ottoman military power.)

2. Meal expenses of Janissary soldiers.

(In fact, meal expenses are added to the salaries of soldiers by tradition. But, janissary soldiers are always in Istanbul, their meals are given separately by the State.)

3. Clothing expenses of Janissary soldiers

(Their clothing expenses are calculated separately from other soldiers.)

4. Clothing expenses of military forces

5. Ammunition expenses of military

6. Salaries of infantries.

7. Salaries of soldiers in castles.

8. Meal expenses of soldiers in castles.

9. Salaries of naval soldiers.

10. Salaries of retired individuals and clerics.

11. Yearly contribution to the expenses of the Crimean Khanate.

12. Maintenance and administrative expenses of the place of pilgrimage.

13. Salaries of individuals who work at the Sultan's women quarters.

14. Salaries of the Sadrazam (Prime Minister) and high ranked officials

of naval and land forces.

15. Expenses of officials who supervise the revenue place of provinces.

16. Expenses of state shipyards.

17. Expenses of manufacturing guns and arsenals.

18. Expenses of the Palace kitchen.

19. Expenses of Palace stables.

20. Maintenance and production expenses of State buildings.

21. Various expenses

(Maintenance and production expenses of roads, bridges etc.)

The information in this table is mentioned below in details.

1. These expense elements are related to 17th and 18th centuries.

2. It is understood from the information in this table that military expenses constitute a big part of State expenses. Also, it should be remarked that these military expenses are given in detail such as salaries, food, clothes and ammunitions.

3. The aid that is made to the Crimean Khanate depicts the attention of the Ottomans towards the heritage of Genghis Khan.

4. Production places of the State such as ship making (dockyard) and cannon making (armory) are among the military purposed expenses.

5. It is seen that the salary, kitchen, stables and fuel expenses of the palace can be examined separately.

These expense separations show that the State is under such a structure that it enables the expense places deemed important by the State accounting

organization.

The document that is examined here is the final accounting arrangement report of the State's annual income and expenses. It should be mentioned that this report is prepared every year and presented for the benefit of the executives.

5.2. Specific Needs Accounting

These are the reports that are prepared by the financial administration according to the needs of the State. The reasons for preparation of these reports are as follow.

1. *Audit Reports on Notification*: They are the reports prepared due to the notifications that are made in subjects such as impropriety or negligence of duty.

2. *Reports prepared with the purpose of collecting State receivables*: They are the reports that are prepared due to the collection of State's receivables with the purpose of assignation of the rest of the cash. These reports are prepared by *basbaki kullari*¹⁹ who are the financial auditors back then.

3. *Reports prepared with the purpose of determining the total that is subject to impropriety*: These are the reports that are prepared with the purpose of determining the size of the impropriety that emerges. These reports are also prepared by *basbaki kullari*.

4. *Reports that are prepared due to the administrator change*

19) *Basbaki kullari* are the clerks determining the rest of the money that is needed to be paid.

within the year: These are the reports that are prepared with the purpose of determining the situation of an income or expense place on a specific date. They are generally prepared because of an administrator change and for the job handover.

5. *Military Expedition Reports:* Expedition accountant works in military expeditions. This accountant keeps the income and expense accounts of the expedition. After the expedition ends, he prepares reports in order to depict the income and expenses, and the cost of the expedition. This is called expedition accounting report.

6. *War Preparation Report:* It announces the military expedition one or two years before and starts the war expedition preparations. They generally collect an extraordinary tax called *avarız* tax for the military expedition. Preparations are necessary in order to determine the total amount of this tax. A report arrangement is needed for this preparation. Taxes are collected on the basis of this report.

All these reports are the ones that are prepared when needed and they are considered extraordinary. It is possible to examine thousands of report samples in the Prime Ministry Ottoman Archives. These reports are titled as “accounting journals” in the archive classification because they are written into journals. Maybe, at first they were written to journals and then binded.

There are two types of experts preparing these reports. One of them is the experienced accountants’ of the state. Those accountants prepare military expedition reports. In the preparation of the audit report where the payment of the in come place was not fulfilled and in the preparation of an impropriety report are the Ottoman financial organization auditors. These people are *baki kulları* and *bařbaki kulları* (*Pakalin, Volume 1*). They are the experts that work in the financial auditing staff of the state and have broad authority to

make state's revenue collections.

Both the usual reports and the unusual reports have certain standards. These reports have rules regarding the accounting information. According to these rules, *Merdiban* method is benefited for the establishment of those accounting reports. Periodically arranged usual reports have a classical structure. In these reports, the name of the individual preparing the report is not mentioned because they are considered as institutional reports. For example, annual final calculation report belongs to the Head Accounting Department. Head Accounting Department prepares the report. Private reports do not have a classical structure. First, the purpose of the report is specified. Then, names of the individuals are mentioned and later on the event is explained by benefiting from the accounting record. It is observed that the auditor's name is generally mentioned in the audit reports.

5.3. Accounting of Charitable Foundations (Waqfs)

The accounting of charitable foundations (*Waqfs*) in the Ottomans is a private area where *Merdiban* method is used. Charitable foundations, in the Turkish culture, are the socially purposed institutions that are constituted in order to foresee the use of an asset or income for a social purpose like bringing water to the village or meeting the needs of a school or a worship place (*Pakalin, Volume 3, 1993*). While allowing the establishment of the foundation, the state arranges a document specifying the founder's name, duty areas' name in the Board of Trustees, their incomes and the collections places of these incomes, seals the document and gives it to the founder. This document is called foundation Voucher. The record of the foundation and the institution undertaking the duty of monitoring the foundation are called registration. Since those foundations have social purpose, the state feels the

need to audit their accounts every year and determine whether they follow their social purpose in the spending of their income. For this, the State required an annual accounting report. The accountant who is dealing with accounting of those foundations prepares this report. This individual makes regular visits to the foundation and runs their daily records. The annual report prepared by this accountant is sent to the center and the accountants at the center audit the report. If auditors determine that the foundation does not follow the rules in their applications, they apply sanctions on them (*Demirhan and Susmus, 2012*).

The documents regarding the foundations can be examined generally at the institution title Administration of Charitable Foundations in Turkey today. However, there are undeniable amount of accounting reports in the Ottoman Archive showing the annual income and expenses of foundations. Those accounting documents are mostly about the foundations that are re-circulated to the state when the founder passes away and there were not any heirs, or about the foundations that are established by state administrators.

The accounting reports that include foundations annual income and expense information can be considered as usual reports. However, it is known that with the purpose of determining some improprieties, some private accounting reports were arranged as well.

5.4. Estate Accounting (Tereke)

Estate (*Tereke*) accounting records are established with the purpose of determining the money, property and assets of a deceased person, and meeting the debts and allocating the rest of the money among the remaining heirs. It has the structure of an accounting report. This duty is performed under the responsibility of the judge (*kadi*) (*Ertas and Sisman, 2012*). The relative of

the deceased applies to the judge and demands the arrangement of heritage accounting in accordance with the heritage law. The judge has assistants. The first assistant is called *tellaliye*. This individual investigates the debts, receivables and assets of the deceased. The second assistant is a technical investigator who evaluates these assets financially. The third assistant is an accountant who prepares the accounting reports while benefiting from the evaluations of other assistants. Some amount of money is paid to the judge and his assistants. These payments are shown separately in the accounting report.

The accounting report is like the characteristics of a liquidation balance sheet. It is arranged accordingly with the *Merdiban* method. On one side, there are his properties (name, amount and total), receivables (in amounts) and money (in cash); on the other side, there are debts (people who are to receive money from the deceased), funeral expenses of the deceased and heirs in accordance with the Islamic law. Finally, there are the money paid to the judge and his assistants. The judge signs these reports and puts it into application.

In practice, *yed-i emin*²⁰ has a duty to fulfill the application according to the information of the judge's accounting report by benefiting from the consultancy of the judge.

The accountant who prepares the accounting report should also be mentioned here. This accountant works as an expert. He helps the judge, arranges a report and receives money for his expertise. He knows about the *Merdiban* method and is able work at multiple courts.

Today, documents regarding estate accounting practices are very few. These documents exist in Turkey in the archives that are related to the

20) *Yed-i Emin* is the person who is entrusted with the goods.

judge verdicts titled as *Seriyye Sicilleri* that is in the Prime Ministry Ottoman Archives.

6. Conclusion

Accrual based accounting was applied to two kinds of taxes. One of them was *Jizya* and the other one was *Mukataa*. In both practices, the taxpayer is debited at the beginning of the year and collections are made during the year. These two wide ranges of applications ensured the development of an accrual based accounting system in the Ottoman State.

Accrual based accounting also helped the development of auditing processes. It is possible find answers to following questions. The total amount of tax, the amount of tax collected from the initial amount, taxpayer's remaining debt, current funds of the treasury after received payments, the paid salaries to the *Multezim*, the amount of tax collected and salaries of soldiers and state officials.

A controlling mechanism existed to prevent the possibility of any excess revenue being taken by *Multezim* over and above the revenue amount, which was agreed in the *Mukataa* contract. State officials titled *Emin* were responsible for this controlling mechanism. Therefore, the *Emin* worked in a supervisory capacity wherever the *Mukataa* contractual agreement was made to ensure the public suffered no loss.

Mukataa revenues are one of the three most important tax revenues of the state along with *jizya* and *waqf* revenues. It constitutes half of state revenues between the 16th and 17th centuries. This reveals a successful and appropriate accounting system. *Mukataa* contracts were applied in Anatolia and the State's territories stretching from the Danube River to Mesopotamia.

The *Merdiban* method had a wide range of use. It was benefited not only in the recordings of daily journals and sub journals, but also benefited for periodic and special reporting purposes as well.

The *Merdiban* method was not only used for state accounting purposes, but also used for the accounting needs of charitable foundations and estate practices. These two are considered as special practice areas of the method.

The *Merdiban* method couldn't meet the changing needs of the 19th century. Therefore, this single entry accounting system was substituted with the double entry accounting system in the year 1879 A.D. Since then, it has taken its place in the annals of accounting history.

Prime Ministry Ottoman Archives in the city of Istanbul is the biggest archive of Turkey. Total number of documents relating to the Ottoman State is 110 million. 60 million documents are classified and total number of accounting documents is 45 million. It can be considered as one of the biggest archives in the world.

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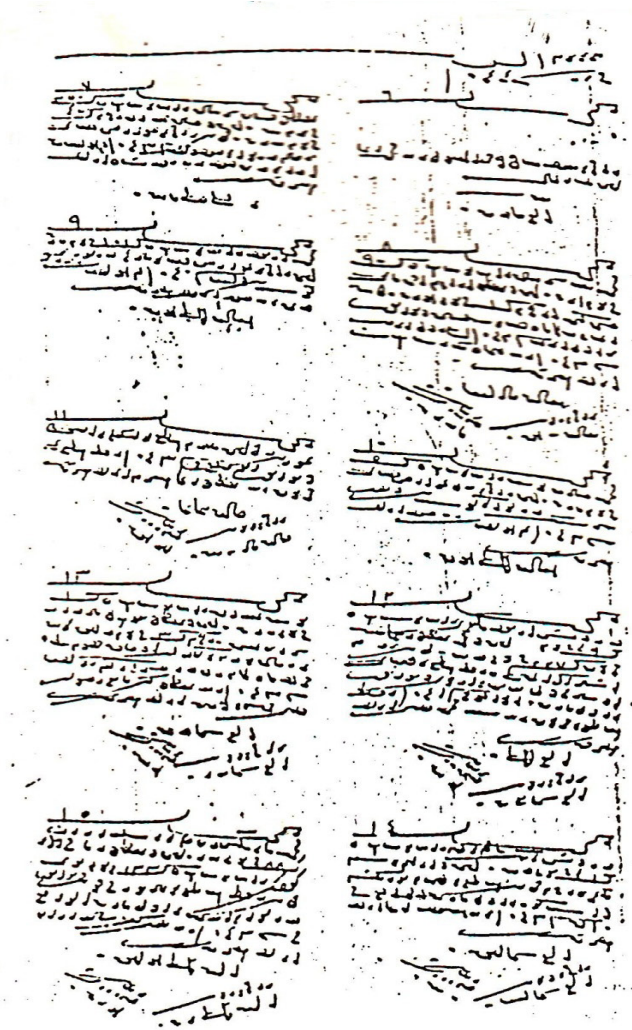
Annex: 1/A²¹

Hegira 1044

Ruznamçe

Photocopy of original document page.182

Language: Ottoman



21) Prime Ministry Ottoman Archives: BOA, Keçeci Tasnifi 1932

Annex: 1/B

Hegira 1044

Ruznamçe

Transcription of Page.182

Tetimme-i yevmü's sebt _____ 1
 Fi 7 R (Rebiülahır) Sene 1044

6
 An tahvil _____ i
 An akça-i nukud-ı Takuhi zimmi
 el... an yed-i Mahmed Ağa
 Nakdiye
 2.185

7
 An tahvil _____ i
 Mustafa Hüseyin serpiyade an
 ebna-i sipahiyan K (bölük) 250
 fi yevm. 30 emin ve Hüseyin
 Abdullah an C (cemaat-ı) m
 (mezbur) K (bölük) 45 fi yevm
 28 katib an akçe-i avarız kaza-i
 Tırhala der Liva-i hod vacib-i
 sene 1043 be cihet-i mevacıbat-ı
 eda-i deyn-i hod an yed-i hod
 şan irad masraf şüd
 20.532

11
 An tahvil _____ i 2
 Gavril zimmi emin-i mültezim-i
 mukataa-i iskele-i Ahyolu ve
 tevabiuha el-vâki fi sene 1043
 an kıstı mukataa-i mezbure an
 yed-i Mustafa Ağa müteferrika
 irad masraf şüd

5.310

An akçe-i mezburin
 5.236

An tefavüt-i
 hasene
 74

(1) 7 Rebiülahır'ın 6. maddeden önceki kayıtları bir önceki sayfadadır. Bu nedenle, sayfaya "tetimme-i yevmü's sebt" yani Cumartesi gününün tamamlayıcısı, devamı denilerek başlanmıştır.

(2) Defterin 11. maddesi, kayıt ve bilgi aktarma belgesindeki tüm bilgileri kapsamaktadır. Bunun nedeni, bu defterin genel bir defter oluşudur. Belge, bu defterde 7 Rebiülahır'ın 11. sırasında yer aldığı için bu sayıyı almıştır. Belge bundan sonra mukataanın bağlı olduğu defterdarlığın varidat kalemine gidecek, oradaki kayıttan sonra orada hifzedilecektir.

Annex: 1/C

April 30, 1634 or 1635 A.D.

Daily Journal

Translation of page.182

Daily Journal Record

Incoming Mukataa value.....11

Mültezim Gavril has the Mukataa of Ahyolu dock and around. This is the payment for the remaining debt of Mültezim Gavril from the year 1634 A.D. by Mustafa Aga.

Akçe²²

5.310

Debt as of Akçe

Positive difference

5.236

74

Note: Total debt amount is 5.236 *Akçe*. Incoming amount is 74 *Akçe* more than expected so it is written separately.

22) *Akçe, akcha* or *akche* is the chief monetary unit of the Ottoman State.

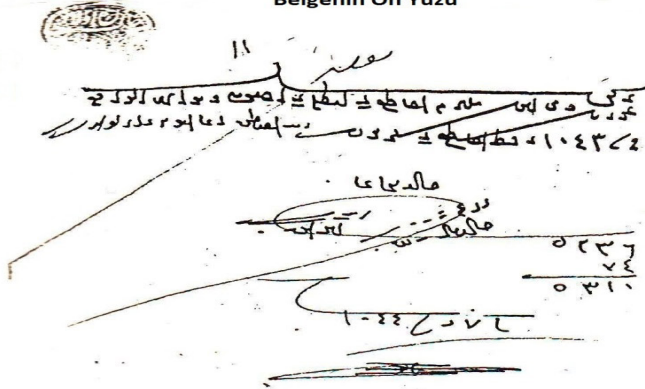
Annex: 2/A²³

7 Rebiülahr 1044

Photocopy of the original document

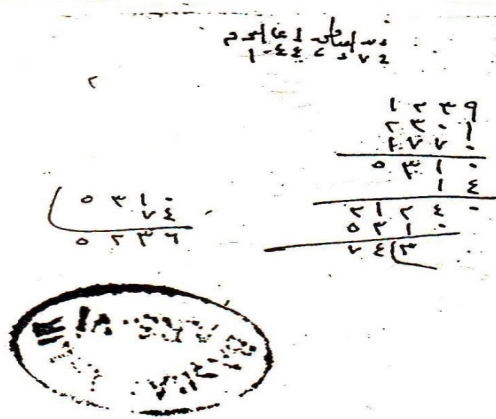
Front Page and Back page of Information Transfer Document

Belgenin Ön Yüzü



Handwritten document with Arabic script. A circular stamp is visible in the top left corner. The text includes a date "7 Rebiülahr 1044" and a signature. There are several lines of text, some of which are crossed out with a diagonal line. The text is written in a cursive style.

Belgenin Arka Yüzü



Handwritten document with Arabic script. A circular stamp is visible at the bottom. The text includes a date "7 Rebiülahr 1044" and a signature. There are several lines of text, some of which are crossed out with a diagonal line. The text is written in a cursive style.

23) Prime Ministry Ottoman Archives: (BOA, BRZ-28/1-5)

Annex: 2/B

7 Rebiülahir 1044

Transcription of the Information Transfer Document

The Front Page and the Back Page

Hüve mühür
11

An tahvil _____¹
Gavril zimmi emin-i mültezim-i mukataa-i iskele-i Ahyolu ve
tevabiuha el vaki fi sene 1043 an kıst-i mukataa-i mezburin
an yed-i Mustafa Ağa müteferrika an irad ve masraf şüd

5.310

An akçe-i mezburin
5.236

An tefavüt
74

5.236
74
5.310

Nukilet

Kayıd şüd
Fi 7 R (Rebiulahır) sene 1044
imza

Tabii
mukataa-i
evvel

Arka tarafın transkripsiyonu

An yed-i Mustafa Ağa Müteferrika²
fi 7 R (Rebiulahır) 1044

1.239	
2.301	
<u>1.770</u>	
5.310	5.310
<u>14</u>	<u>74</u>
21.240	5.236
<u>5.310</u>	
74.3	

Mukataa-i
evvel

1) Ahyolu iskelesi ve civarı mukataasının mültezimi Gavril zimmi'dir. Mukataanın 1042 yılına ait gelirinden bir bölümünü Mustafa Ağa getirmiştir. Bu gelir nakit olarak girmemiş harcanmıştır. 5236 Akçe aslı, 74 akçe farkı olup, toplamı 5.310 akçedir. Bütün bunları mukataa kalemi yazmaktadır. An tahvil sözcüğünün üzerindeki "hüve" belge düzenleyenin Tanrı adı ile başladığını gösterir. Muhtemelen mühür de Mukataa-i evvel kalemindedir.

Belge mukataa-i evvel kaleminden, ruznamçe kalemine gelir, aşağıda üzerinde durulacağı üzere, bu bölümde madde numarası olan 11 bu belgenin üzerine yazılır ve kaydın yapıldığını gösterir biçimde yan tarafa "nukilet" sözcüğü, yani "nakledildi" ibaresi yazılır.

Annex: 2/C

30.5.1634 A.D.

Translation of the Information Transfer Document

Information Transfer Document

Front page of the information transfer document

Payments received.....(seal)

The debt of Multezim from Mukataa of Ahyolu docks and around for the year Hegira 1043, is sent by Mustafa Aga.

Akçe

5.310

Debt as of Akçe

Positive difference

5.236

74

5.236 transfered.

74

5.310 recorded.

Department of Mukataa-i Evvel April 7, 1634 A.D.

Note: Individuals who write to the daily journal mentioned that the document was transferred to *Mukataa-i Evvel*.

Back page of the information transfer document (*Tahvil*)

Payments received by Mustafa Aga, Date: April 7.

1.236

2.304

1.770

5.310

5.310

74

74

5.236

21.240

Department of Mukataa-i Evvel

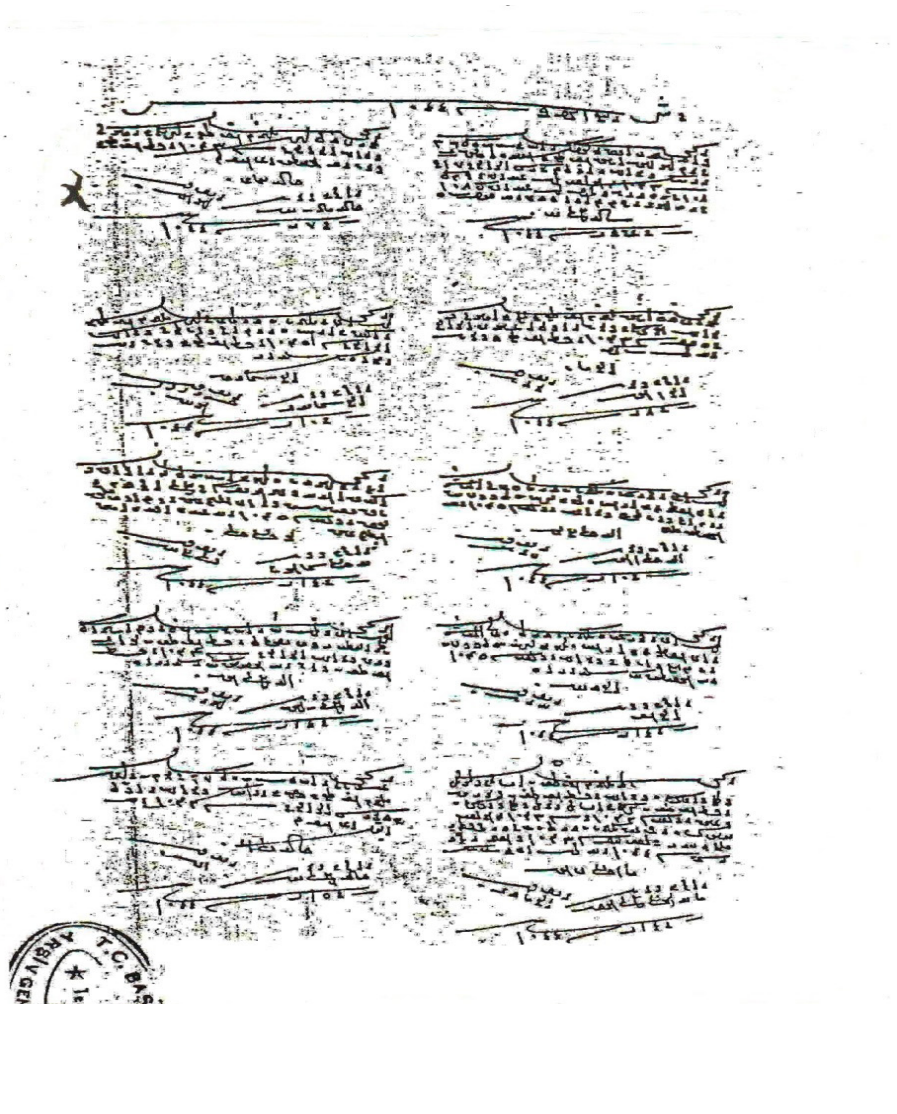
Note: In the back page, there are the notes of the accountant who works at the *Mukataa* department, and the notes of the sub-accountant who works at the *Mukataa* journal of the Ahyolu docks. Those notes show detailed financial information about the mentioned *Mukataa*. It is presumed that the sub-accountant would preserve this document.

Annex: 3/A²⁴

Hegira 1044

Month Rebiülahır

Photocopy of the first page of *Head-Mukataa* Accounts



24) Prime Ministry Ottoman Archives: (BOA, Keçeci 5022)

Annex: 3/B

Hegira 1044

Month *Rebiülahır*

Transcription of the first two articles of the first page of Head Mukataa accounts

(BOA, Keçeci- 5022)

Fi sehr—————ⁱ
Rebiülahır sene 1044

An tahvil—————ⁱ
Murad. . . Oda-i küçük an ebna-i
Sipahiyan K (bölük) 36 fi yevm
44 emin-i mukataa-i ma'den an
hassa-i Presnik ve tevabiuha
an evvel-i Zükurs el-vaki fi 17
C (Cumadelahır) sene 1043 be
cihet-i Mehmed Abdullah an
C (Cemaat-i) m (mezbur) K (bö-
lük) 108 fi yevm 25 ve Mahmud
Mehmed Abdullah K (bölük) 108
Fi yevm 24 an C (cemaat-ı) m
(mezbur) be cihet-i eda-i deyn
an yedi hodşan

6.930

kayd şüd

Fi gur-re-i Rebiulahır sene
1044

An tahvil—————ⁱ²
Gavril zimmi emin-i mültezim-i
mukataa-i iskele-i Ahyolu ve
tevabiuha el vaki fi sene 1043
an kıst-ı mukataa-i mezbure
an yedi Mustafa Ağa
müteferrika

5.310

An akçe-i mezburin
5.236

An tefavüt
74

kayd şüd
fi 7 Rebiulahır sene
1044

(1) Defterin bu bölümünde Rebiülahır ayına ait mukataa gelirlerinin yer aldığı anlaşılmaktadır.

(2) Bu ayın gelirlerinin ikincisinde, kayıt ve bilgi aktarma belgesinde yer alan bilgilere yer verilmiştir.

Annex: 3/C

April, 1634 or 1635 A.D.

Translation of the first page of *Head-Mukataa* Accounts in English

Payments received.....

Delivery of the Multezim Gavril's debt by Mustafa Aga regarding the Mukataa of Ahyolu docks and around in the year 1634 A.D.

5.310

Debt as of Akçe

Positive Difference

5.236

74

Recorded in April 7, 1634

Note: Total amount of revenues from the *Mukataa* contracts held in this department is monitored at this journal. This page of this journal belongs to the revenues related to the month of April. End of month total would give the total amount of revenues related to that month. It is like an account of a ledger. It is initially like a sub-ledger. There is also a second journal, which is directly related to the sub-accounts of the *Mukataa* contract of Ahyolu docks. That journal has not been found in the archives.