Contemporary Research in Accounting, Auditing and Finance

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Edited by

Ersin Kurnaz and Murat Serçemeli

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PREFACE

The globalization of the world, technological advances and changing human needs have affected the business world as well as many other areas. While changes and developments have taken many years in the past, they happen very quickly today. It has also become necessary for businesses to adapt to these changes. Business management must follow developments in the areas of accounting, auditing and finance in order to be able to adapt to such developments.

The purpose of this book is to examine the current issues in accounting, auditing and finance from a scientific point of view and make various suggestions for them. In this context, the contents of the book have been created taking into account the latest developments in the field. It has also benefited from a very wide range of resources, since a comprehensive area has been selected. This feature will allow the persons concerned to benefit more from the book.

As a result of teamwork, this book is being prepared and the scientific researches on selected topics in accounting, auditing and finance are sought from expert writers in their fields. Each author has focused on issues related to their respective fields. The editors, on the other hand, have tried to form a common language and unity in order to provide integrity in the book. The responsibility for each chapter belongs to the author of that chapter. The book consists of thirteen units. This book, which includes contemporary studies in the fields of accounting, auditing and finance, will be useful for those concerned.

The Editor

Comparison of Amortization Implementation with TAS-16 and VUK

Yakup Aslan

Introduction

The concept of depreciation comes from the original Latin word for amortization, and includes the meaning of gradually killing, deformation, and a step-by-step approach to decay. Investment expenditures related to tangible fixed assets are recorded as expense by depreciation and are related to the results of the period. Therefore, depreciation calculated for property, plant and equipment affects the result of the period and plays an important role in determining profit or loss.

The ability to make different definitions for depreciation in tangible fixed assets arises from the emergence of different approaches for different purposes. These approaches can be summarized as follows (Sevilengül, 2011).

- In financial terms, it is the process of returning the capital invested in fixed assets.
- Economically, it is the process of ensuring the continuity and sustainability of the capacity.
- It is the process of incorporating cost losses into the costs in the sense of cost, the use of fixed assets used or other reasons.
- In terms of general accounting, it is the expense of depreciation of fixed assets during the time they are used.
- An activity is a process in which a registered value is destroyed within a certain period of time.
- A process distributes an appropriated expense to the relevant years.
- It is an accounting process that shows the depreciation of fixed assets in an enterprise as a result of usage-related depreciation and is the reason why the purpose of renewal is to be renewed.

Tangible assets have an important place in industry, especially in the business community. Parallel to this, depreciation of the assets in question is equally important. Because of this, depreciations should be calculated in the most appropriate way and correctly in order to present the tangible assets in a proper way on the financial statements and to report profit or loss correctly (Uğur & Atasel, 2017). The depreciation of the tangible fixed assets is the calculation of depreciation (Gökçen, 2007).

Amortization in fixed assets by TAS-16

Regardless of the general activity of the business, the tangible assets in the balance have a special precaution. Even if there is not much need to invest in tangible fixed assets in trade and service businesses, accounting transactions related to acquired fixed assets have an important place in accounting flow and reporting. The 16th Turkey Accounting Standard; the accounting of tangible assets, the determination of their book values and the depreciation amounts that should be reflected on the financial statements related to them, explain the application principles of depreciation and amortization.

According to the Standard, Tangible Fixed Assets are defined as "physical items that are held for the production or supply of goods or services, to be given to others or to be used for administrative purposes and foreseen to be used over a period of time" (TAS-16, md.6). In order for a property, plant and equipment to be activated as an asset, tangible assets must be able to measure the future economic benefits and costs of the operation reliably (TAS-16, md.7).

In the capitalization of tangible fixed assets, what constitutes a fixed asset item is not foreseen in TAS-16. Instead, it was emphasized that accounting principles should be judged in applying to operating-specific conditions. An entity accounts for all costs related to property, plant and equipment at the historical cost of those assets. These costs are incurred during the initial acquisition or construction phase of a property, plant and equipment; addition, partial renewal and maintenance. Spare parts and maintenance materials are generally monitored in stock. These are reflected in the income table when they are used. However, significant spare parts and materials that the operator expects to use over a period of time are considered as fixed assets (Gökçen, Ataman, & Çakıcı, 2011). The TAS No. 16 Standard has shown significant changes in the amortization amounts according to the legislation. The most striking change is that the scrap (residual) value of the economic asset subject to depreciation is deducted from the cost value if it is not an insignificant amount, and that all tangible assets are depreciated on a monthly basis to begin the use of the asset (Kıst Amortization Application). These and other differences can be categorized under five headings.

1. Differences in Amortization Separation Conditions;
2. Differences in Deportation Subject to Amortization;
3. Differences in Depreciation Rate and Duration;
4. Differences in the Amortization Amount Calculation;
5. Differences in the Depreciation Method.

The concepts used in amortization applications stipulated by the standard are as follows;

- Amortization: Amortization of an asset is systematically distributed over its useful life.
- Useful Life: It refers to the expected period of use of an asset or the amount of production expected to be obtained from the related asset or a similar unit of production.
- Depreciation Amount: This represents the amount found by deducting the residual value from the cost of an asset or from other amounts that replace the cost.
- Book Value: The amount of an asset that is reflected on the financial statement after the accumulated depreciation and accumulated impairment losses are reduced.
- Residual Value of an Asset: When an asset reaches the end of its estimated useful life, it is the estimated amount that is expected to be recovered from its disposal, less the estimated costs of disposal.

According to the Standard, it is essential to deduct the residual value of the asset (residual value) from the cost while calculating the value subject to depreciation. However, if there is no residual value or if it is insignificant, it is necessary to take this value into account. Residual value must be paid regularly. Changes in the residual value are the changes in accounting estimates accounted for in accordance with TAS-8.

Various depreciation methods can be used to systematically distribute the amount of an asset subject to depreciation over its useful life. These methods are as per TAS-16:

- The Normal (Linear) Depreciation Method;
- The Amortization Method over Reduced Leaders;
- The Production Quantity Method.

The entity chooses the method that best reflects the expected consumption pattern of the future economic benefits of the entity. The selected method is applied consistently from the period unless there is a change in the expected consumption pattern of future economic benefits.
The differences between the Tax Procedural Code and TAS-16 are shown in the following tables (Şen, 2011).

Table 1-1. Differences between TAS-16 and VUK in Practice

VUK	TAS-16
a) More than one year in operation. b) Exposure to wear, abrasion or degradation. c) The activity must be registered (inclusion of the inventory means that the economic asset is included in the inventory and is in fact registered and stored in the inventory). d) A certain amount of the value is the economic value (900 TL for the year 2018). e) Tangible assets held for sale may continue to be depreciated in non-current assets that are not expected to have economic benefits in the future. f) There are no arrangements for depreciation by separating or grouping items. However, valuations can be made together. g) Depreciation is what you need. Taxpayers will be able to allocate depreciation if they want, but will not be able to separate the depreciation that they did not allocate in the following periods.	a) A year in operation or excessive use from an activity period. b) Exposure to wear, abrasion or degradation c) The activity must be registered and ready for use. d) There are no numerical limitations on the classification of an asset as a tangible asset. e) Property, plant and equipment held for sale is depreciated in the case of assets that are not expected to have economic benefits in the future. f) It is possible to separate depreciation by separating or grouping the pieces. g) There is no such thing as depreciation. Because the standards are aimed at revealing the true situation of the intended enterprises in all aspects.

Table 1-2. Differences in Amortization

VUK	TAS-16
a) The value subject to depreciation is the cost of the asset. b) Depreciation is calculated over the total amount including the maturity difference since the maturity differences arising from the acquisition of the asset are included in the cost of the asset. c) As the financing costs of the tangible fixed assets (later optional periods) have to be added to the financials, the value of depreciation includes the financing costs in each case.	a) Amortization is the amount after the residual value is deducted from the cost value of the asset. Exposure to wear, abrasion or degradation. b) Maturity differences arising from the acquisition of assets are depreciated over non-maturity amounts because they are not included in the cost of the asset. c) Depreciation is charged over the cost of capital, which does not include financing costs (except for qualifying assets), since financing expenses related to obtaining an asset must not be presented as financial assets.

Table 1-3. Depreciation Rates and Diversity

VUK	TAS-16
a) Although the amendment to the "useful life" depreciation in the VUK is the actual period, it is necessary to comply with the published economic lives. b) The useful life is only determined on the basis of a "year". c) The useful life is stable except in exceptional circumstances. d) The depreciation rate in the Decreased Funds Scheme is two (2) times the Normal Depreciation rate. However, this rate can never exceed 50%.	a) The depreciation period is determined by the useful life or production amount. The useful life of the economic asset is estimated by the business management. The choice of depreciation rates should be determined to reflect the utility of the entity in using the asset. The depreciation rates should also be changed when the asset changes its usage pattern (when the number of shifts increases, when the usage location changes). b) The useful life is determined on the basis of a "year" or "production unit". c) Estimates of the useful life and residual value must be made annually and the changes reflected. d) The depreciation rate in the Decreased Funds Scheme is two (2) times the Normal Depreciation rate. There are no restrictions on the application of the rate.

Table 1-4. Differences in Amortization Calculation

VUK	TAS-16
a) Steep depreciation applies only to passenger cars. b) Amortization will be started in the light of the receipt of the Auto Motorist and the month of receipt shall be counted. c) The amount of depreciation that is not allocated for the first period is added to the depreciation amount for the last year.	a) Depreciation applies to all tangible assets. b) Amortization should be started in the light of the receipt of the Passenger Car and the monthly fraction received shall be counted. c) The amortization amount that is not allocated for the first period is reflected by taking into account the relevant months following the period of the end of the asset's life.

Table 1-5. Differences in Depreciation Method

VUK	TAS-16
a) The methods that can be used are the Normal Depreciation Method, the Depreciation Method over Declining Leaders (Accelerated), and the Extraordinary Depreciation Method in	a) The methods that can be used are the Normal (Linear) Depreciation Method, the Decreasing Leader Method and the Production Amount Method. b) Unless there is a change in the

exceptional circumstances. The Production Quantity Method is not foreseen. b) According to the Normal Depreciation Method for a tangible fixed asset, it is not possible to switch to the Reduced Fundamentals Method after depreciation has started. However, the Normal Depreciation Method can be reversed if the Decreasing Leader Method is used. c) Only taxpayers who keep books according to the Balance Sheet Method can apply the Decreasing Fundamentals Method.	expected consumption pattern of future economic benefits, the selected depreciation method should be amended and applied consistently. If the expected consumption pattern changes, the depreciation method can also be changed. c) All businesses will maintain their books in accordance with TAS/TFRS and will apply the provisions stipulated by the standards when they begin to prepare their financial statements in accordance with TAS/TFRS.

Conclusion

Amortization Practices for Businesses are very important in accordance with the notion of precaution, which is the basic concept of accountancy. In the same way, depreciation is seen as a very meaningful compensation method for the decline in the value of economic assets because the entities are working on a continuity basis.

The 16th Turkey Accounting Standard (TAS-16) discloses embodiments of tangible asset depreciation. There are differences in the application of the methods between the Standard and the existing applications, with the Amortization Amount specified, the Amortization Time and Rate, and the Amortization Methods. The most basic of these is to consider the Residual Value when the Standard Depreciation Value is determined, to adopt the Continuous Depreciation Application for all tangible assets and to use the Production Price Method in the Depreciation Calculation as a depreciation method.

On the basis of depreciation, businesses can write off more or less time depending on the method they choose, reduce/increase the cost of manufactured goods, and offset the amount of tax they will pay. The basis for doing this is to apply the most appropriate method in terms of operation. For this reason, the accounting practitioner must know all aspects of depreciation (Gökçen et al., 2011).

In the 2013 accounting period, it will be mandatory for Turkey's accounting practices to comply with Accounting Standards and Financial Reporting Standards (Law No. 6102, paragraphs 64-88). It is clear that the differences between the Standards and the Tax Legislation will cause implementation difficulties. Harmonization of the regulations in tax legislation with the accounting standards will provide convenience both to the accounting practitioners and to the financial statement users. The basic rationale of the cost model is similar in Standard 16 and VUK. However, there are differences in the calculation of the cost. In particular, the valuation of property, plant and equipment with fair value, the recognition of impairment losses, the improvements introduced in the amortization separation and the calculation of the effects of income taxes on these situations pose some problems. These differences are because the accountants of the firms and the auditors working in the audit firms are foreign.

In general terms, some provisions in TAS-16 provide taxpayers with an advantage over the VUK. In addition to the advantage, the Standard presents an important situation for the users of the financial statement, especially in the determination of the value of the tangible fixed assets in manufacturing enterprises, the differences caused by the valuation of these assets and the fair value of the company value. From the perspective of information users, the fact that the values appearing in an enterprise's binary are not indicative of the real situation, is important in terms of decisions. The more values appearing on the balance, the more likely they are to be offset by the decisions they will make.

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New Blood for Participation Banks: The Evaluation of Newly Established State-based Participation Banks in Turkey

Tuğba Eyceyurt Batir

Introduction

There is a group of people in Turkey who reject working with a bank which uses interest or performs its business with interest, as in the world. Therefore, following the establishment of the first Islamic bank "Nasser Social Bank" in 1971 in Egypt, the first Islamic bank of Turkey "Albaraka Turk" was established in 1984.

Islamic finance emerged, named as the Special Finance House (SFH) in Turkey. Soon after, Al Baraka Turk was established as the first SFH in 1984 and Kuveyt Turk followed in 1989 (Aysan, Dolgun, & Turhan, 2013; Eyceyurt Batir, Volkman, & Gungor, 2017). Following Kuveyt Turk, Bank Asya was established in 1996 and Turkiye Finans Katılım Bankası (TFKB) was established in 2005. During that time some other Islamic banks were established but they were shut down before 2005 for several reasons, so they are not included in this study.

The SFHs were all included by the Banking Regulation and Supervision Agency (BRSA), through the 5411 Banking Law in 2005. In this way they all acquired the same functions and privileges as the conventional banks and attained more importance and popularity in Turkey. Based upon the change from the 5411 Banking Law, the name "special finance house" was changed to "participation bank" (PB) in 2005 (Aysan et al., 2013).

However, participation banks have a small share in the total asset size of the banking system in Turkey, and their considerably higher growth rates indicate that they are developing and well-performing financial institutions (Eyceyurt Batir & Gungor, 2016). Participation banks increased their assets from USD 1.8 billion in 2002 to USD 28 billion in 2010, at a compound annual growth rate of 33% compared to the sector average of 19% for the same period. They also increased their combined market share in assets from 2.1% in 2002 to 4.3% in 2010 (Bicer, 2011; Kartal & Demir, 2017).

In February 2015, the Saving Deposit Insurance Fund (SDIF) retained 63% of the management of one of the PBs, Bank Asya, then Bank Asya was completely transferred to the SDIF in May 2015 based upon some financial and political problems. The previous bad experiences in participation banking with Ihlas Finans and Bank Asya have confused the people who work or do not work with participation banks. So, the main idea of state-based banking and a state guarantee has occurred. Thus, especially the people who work with participation banks in Turkey started to think about state-based banks.

New blood for participation banks in Turkey

Recently the government has continued the development of participation banks. Therefore, some regulations were done to advance the participation banking sector. Since one of the participation banks, Bank Asya, pulled out of the market in 2016, the number of PBs has decreased. Instead two new state-based participation banks got into the market. This market penetration had two favorable effects. Firstly, this penetration increased the number of participation banks. Secondly the government got involved in the participation banking system (Doğan, 2017).

The State banks of Turkey, Ziraat Bank, Vakif Bank, and Halkbank, have applied to establish Islamic windows in their constitution and Ziraat Katılım was activated by May 2015. Then, Vakıf Katılım received an authorization approval from the BRSA in February 2016. But the establishment license of Halkbank Katılım was cancelled by the BRSA, based on Halkbank's declaration.

In addition, two banks in liquidation (Türkbank and Emlakbank) are expected to return to the stage as participation banks. The Saving Deposit Insurance Fund (SDIF) has already announced this conversion for Emlakbank (AK, 2015).

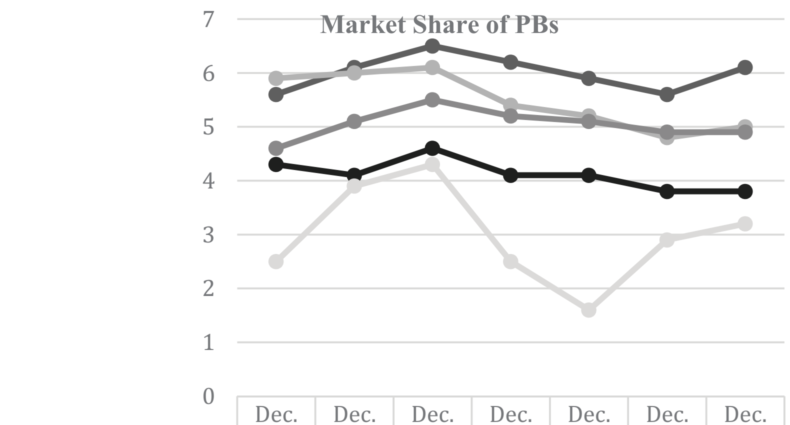
According to the chairman of the Participation Bank Association of Turkey (PBAT) and the general manager of Albaraka Turk, Meliksah UTKU, new state-owned participation banks initially got into the market in metropolitan regions but they will focus on the country soon, since there is big potential for participation banking in the countryside. Also, he states that the market share of PBs was stabile although one of the PBs pulled out of the market, so this was already progress considering that PBs had lost an actor.

Methodology

The banking sector is one of the most important industries since it directly effects the economy of a country. Therefore, whether or not the new attendance to the participation banking system has a positive influence on the sector is important.

The methodology used in this paper is qualitative, supported by quantitative data acquired from PBAT and the Bank Association of Turkey (BAT). Financial data and the growth rate of participation banks and the total banking sector are calculated. Considering these data, the situation of the participation banking sector is evaluated.

Currently there are three relatively older active participation banks, Albaraka Turk, Kuveyt Turk, and Turkiye Finans, and two newly launched state-based participation banks, Ziraat Katılım and Vakıf Katılım. The market share of participation banks in the total banking sector between the years 2011 and 2017 is given below.



	Dec. 2011	Dec. 2012	Dec. 2013	Dec. 2014	Dec. 2015	Dec. 2016	Dec. 2017
Total Deposit	5.6	6.1	6.5	6.2	5.9	5.6	6.1
Total Loan	5.9	6	6.1	5.4	5.2	4.8	5
Total Asset	4.6	5.1	5.5	5.2	5.1	4.9	4.9
Equity	4.3	4.1	4.6	4.1	4.1	3.8	3.8
Net Profit	2.5	3.9	4.3	2.5	1.6	2.9	3.2

*Data are collected from the official PBAT website for all figures; figures are drawn by Microsoft Excel.
Figure 2-1. Market Share of PBs

Figure 2-1 shows that the total deposit, total loan, total asset, equity and net profit market share of PBs all increased until the end of 2013. Then the market share decreased in selected indicators until the end of 2016 and after that it started to increase again. It might show that after Bank Asya's termination, there was a negative effect on the market share between the years 2013 and 2016. On the other hand, the recovery of the sector and the new state-owned participation banks started to have a positive effect after 2016.

The growth rates of the selected indicators for the last five years for participation banks and total banks are given in Table 2-1. As for the participation banking sector and bank groups, it is seen in Table 2-1 that, the yearly growth rates of some selected indicators of PBs are not as high as the growth rates of the total banks' selected indicators. It might be caused by the termination of the activity of one of the PBs, Bank Asya. Following the start-up of the Ziraat Katılım Bank in 2015 and the Vakıf Katılım Bank in 2016, by the year 2017, the growth rates of PBs' selected indicators were higher than the growth rates of those of the TBs. This may be called the positive effect of newly established state-based participation banks.

Table 2-1. Yearly Growth Rate of Participation Banks (PB) and Total Banks (TB) between 2014 and 2018

Selected Indicators	Yearly Growth Rate (%)									
	2014 (December)		2015 (Dec)		2016 (Dec)		2017 (Dec)		2018 (April)	
	P.B.	T.B.	P.B.	T.B.	P.B.	T.B.	P.B.	T.B.	P.B.	T.B.
Total deposits	6,4	11,3	13,7	18,3	9,6	16,7	29,2	17,8	9	6,6
Total loans	3,5	17	13,7	18,3	7,2	17,2	25,7	21	8,1	7,1
Total Assets	8,4	15,1	15,4	18,2	10,5	15,8	20,5	19,3	7,3	5,5
Equity	8,6	19,7	10,7	13,1	8	14,5	18,7	19,6	8,8	6
Net Profit	-55,8	-24,4	-14,4	39,7	173,1	44	43,1	30,9	38,4	7,9
Number of Employees	-3,1	1,2	1,9	0,3	-12,6	-3	3,9	-1,2	1	0,3
Number of Branches	2,6	1,9	9,1	0,5	-11,2	-4,3	7,6	-1,4	0,9	-0,3

*Data are collected from the official BRSA and PBAT websites. Growth rate is calculated according to 12 months of the previous year.

If the selected indicators are evaluated on the basis of participation banks between the years 2010 and 2017, Figure 2-5 arises.

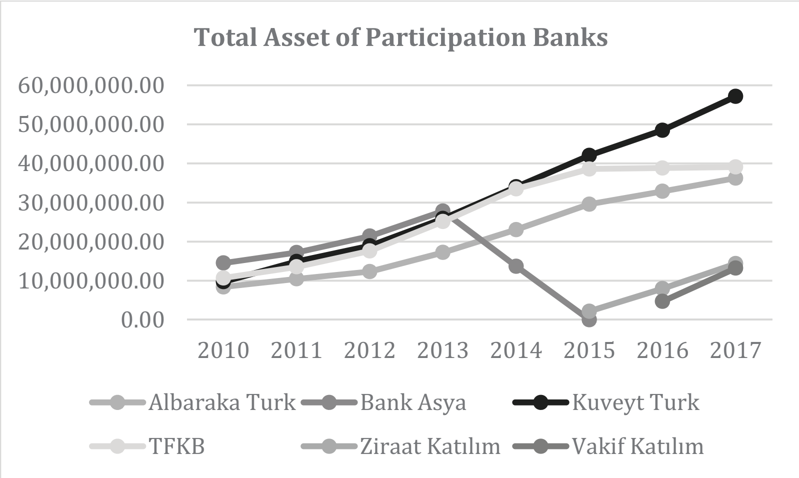


Figure 2-2. Total Assets of Participation Banks

Figure 2-2 shows that the total assets of each participation bank increased except Bank Asya. The total assets of Bank Asya went to zero point by the year 2015 after it terminated its activity. The comparatively total asset increase of state PBs seems higher than the increase of other PBs. Also, after Ziraat Katılım's establishment in 2015 and Vakıf Katılım's establishment in 2016, the increase in the total assets of other PBs shows a degressive rate in comparison with previous years. This might be caused by the two new competitors, Ziraat Katılım and Vakıf Katılım.

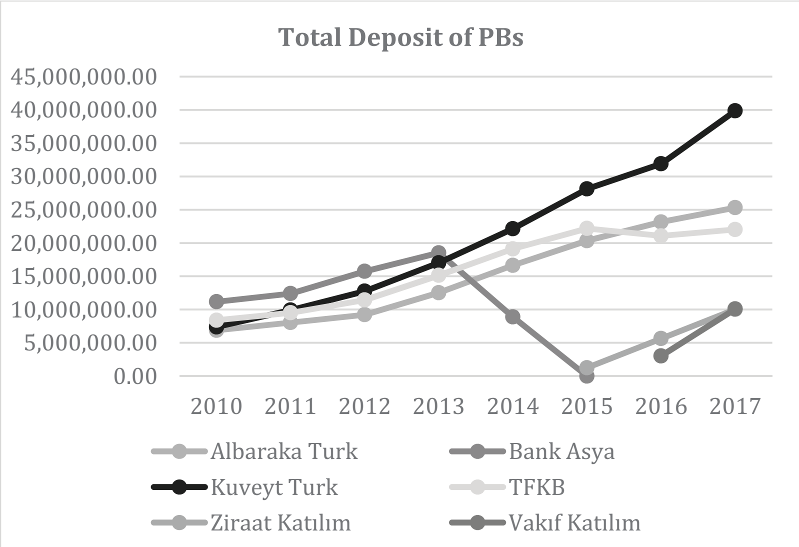


Figure 2-3. Total Deposits of Participation Banks

Figure 2-3 shows that the total deposits of PBs continually increase, except for Bank Asya since its termination. Especially Kuveyt Turk increased its deposits from about 7 million TL to almost 40 million TL in 7 years. When the new state-based PBs are examined, it is seen that the total deposits of each state-based PB reached approximately 10 million TL by the year 2017.

In parallel with the total deposits of PBs, Figure 2-4 shows that the total loans of PBs continually increase, except Bank Asya. When the total loans and total deposits are checked together, it is seen that TFKB and Ziraat Katılım make more loans available than their total deposits. In 2017, Ziraat Katılım has 11.747.000 TL in total loans while it has only 10 million TL in total deposits. Nevertheless, TFKB has 26 million TL in loans while it has 22 million in deposits. These banks may use sources other than deposits to provide loan facilities.

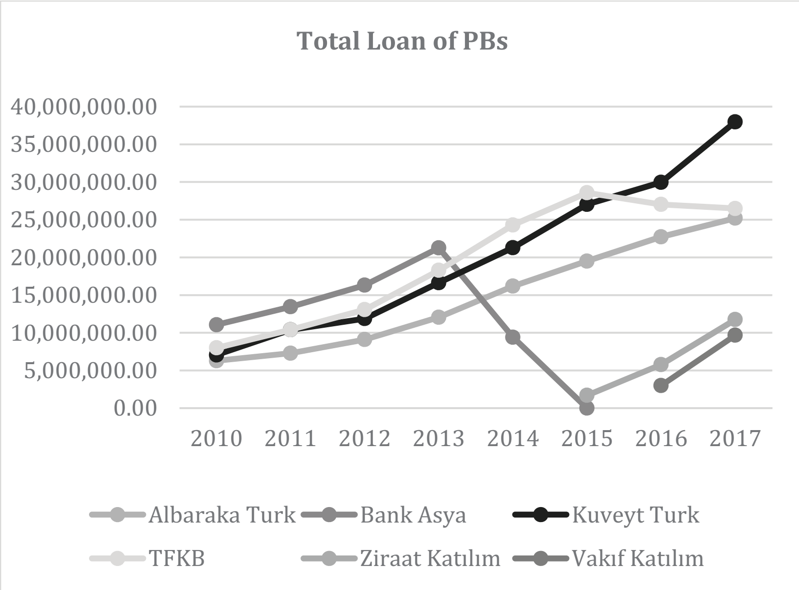


Figure 2-4. Total Loans of PBs

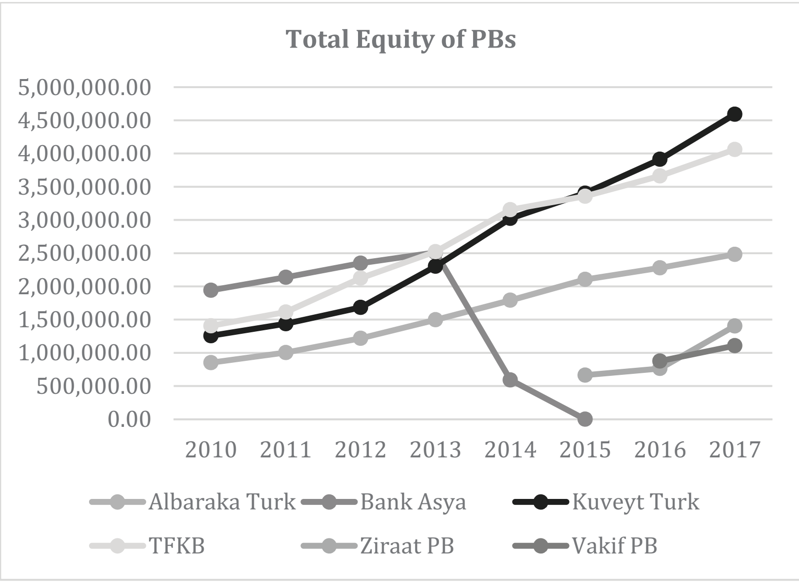


Figure 2-5. Total Equity of Participation Banks

When the total equity is evaluated there is a continuous increase in all PBs' total equity except for Bank Asya in Figure 2-5. For the last year Ziraat Katılım, Kuveyt Turk and TFKB have a high increase in total equity. Kuveyt Turk has the highest equity with approximately 4.5 million TL and TFKB follows with 4 million TL.

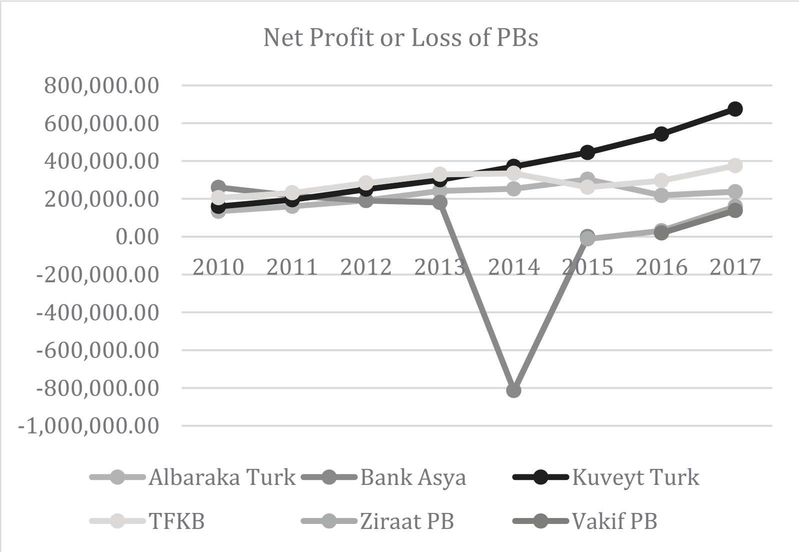


Figure 2-6. Net Profit or Loss of Participation Banks

Figure 2-6 shows that Bank Asya had a loss in 2013-2014 before being transferred to the SDIF. It is seen that, Kuveyt Turk had about 675.000 TL net profit, TFKB had about 375.000 TL net profit, and Albaraka Turk had about 237.000 TL net profit. When the profit or loss of state-based PBs are calculated, Ziraat Katılım had 158.000 TL net profit and Vakıf Katılım had 138.000 TL net profit.

Conclusion

Although there are no precise data about the potential volume of participation banking in Turkey, it seems that participation banks will keep increasing their market share especially after the launch of new state-based participation banks. Because it is thought that there is big potential for at least relying on a more conservative depositor base and the share of the participation banking system could not reach the well-deserved status of the total banking system. As stated by the chairman of PBAT, it is thought that if the newly launched state-based participation banks widen to rural areas, participation banks will serve more people who want to work with Sharia compliant banks.

When the selected financial indicators are examined, it is seen that especially until Bank Asya's transfer to the SDIF, financial indicators were better than the total banking sector. Besides, the market share of PBs continually increased until the transfer. After Bank Asya's termination there was a slight decrease in the market share as the PBs lost an actor. But the selected indicators of other PBs went on to increase. Especially after the recently launched state-based PBs the market share of PBs in selected indicators started to increase again. This might show the positive effect of new state-based PBs on the sector. Nevertheless, to make a brief and precise detection, we need a longer time to fully examine the financial and economic contribution of new state-based participation banks.

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THE AUDIT RISK AND EARNINGS MANAGEMENT RELATIONSHIP

ALPER KARAVARDAR

Introduction

Recent financial crises are important in that they highlight the current complicated nature of the global financial system and they have created new questions to be answered by researchers and new fields of interaction that need to be investigated. The increasing international activities of enterprises and international financial integration have increased the severity and impact areas of financial crises. The impacts of company scandals on capital markets have once again revealed the importance of the independent audit for the efficient operation of markets. The quality of financial integration is certainly one of the most important main inputs of financial information in terms of the global financial system. The earning quality of enterprises is a significant part of financial information in terms of domestic and foreign markets. Independent audit activities satisfy an important need of the financial system by ensuring the accurate conveyance of earning quality to financial statement users. Earning management activities are an important problem on which auditors must put excessive emphasis. The flexibility provided for users by the financial reporting framework makes the extent of fraudulent financial reporting controversial. It is important for auditors to clarify this gray zone so that the audit quality can be increased. Increasing the effect of audit activities is closely related to improving the quality of financial information. The interaction between the financial information quality, earnings quality, earnings management and audit risk in terms of improving the financial reporting culture is important for the operation of the financial system.

Financial information quality

As an accounting function, financial information is quantitative related to the financial status of an enterprise produced by the accounting information system regarding internal and external stakeholders and the qualitative output of activities that can be expressed in money performed with the aim of realizing the objectives of the enterprise. Financial information is a two-dimensional definition as an input of the audit process. Fundamental qualitative features constituting the first dimension point out that the most important characteristic of financial information is to help decision-making. In this sense, relevance – understandability, comparability – consistency and reliability – and faithful representation determine the quality of financial information (FASB 2, 1980: 13). These characteristics that must be possessed by financial information constitute a conceptual framework in order to minimize information asymmetry. Enhancing qualitative characteristics constituting the second dimension represent common limitations regarding faithful and reliable financial information. Financial information is shaped within the framework of accounting standards and presented to relevant people through financial statements and reports. Accounting standards are the body of rules based on generally accepted accounting principles (GAAP), determining accounting standards, recording values and procedures of transactions, classification and the reporting of such transactions with the aim of creating application integrity. Accounting standards can mislead users of financial statements as they have a flexible nature in terms of practicality aimed at adapting to the different natures of enterprises. This flexibility in accounting standards is mostly created in connection with realization time and accrual concepts. Financial information manipulations that are aimed at deliberately affecting the differences between enterprises that need to be emphasized in terms of the relevant stakeholders in order to increase the stock values of the enterprise and affect the income transfer between the enterprise and funders (Stolowy and Breton, 2000; Kirschenheiter and Melumat, 2002; Stolowy and Breton, 2004) are attempts to benefit from this flexibility mostly by deviating from the principle of substance over form. Financial information manipulations, which can be summarized as an attempt to manage the risk perceptions of stakeholders about the enterprise through various accounting procedures in order to show the financial status of the enterprise differently from the actual state, are a result of using the financial communication between the enterprise and its stakeholders as a perception management process. A review of the academic literature reveals that there is no commonly agreed definition of financial information manipulation and classifications have been made through various relationships such as objectives and achievements. Stolowy and Breton (2004: 7) state that financial information manipulations can be performed in favor of (in order to minimize costs related to legal regulations and capital costs) and against (as executives want to maximize their wages) the enterprise. Mulford and Comiskey (2002: 4) point out that financial information manipulations have four objectives relating to stock values (high stock and option values, low volatility and equity capital costs), the cost of borrowing (improving credibility, increasing the level of debt, and making the enterprise more flexible with lower costs of borrowing), executive wages (executives want to increase their wages due to wage systems based on profit) and political costs (to avoid various legal regulations). Cox and Weisich (2002) state that 70 per cent of the financial information manipulation discovered during the audits performed in the USA involved premature revenue recognition, transition among fiscal periods and fictitious revenue recognition. The power to create income is the ability of an enterprise to make profit in the current and future periods based on its activities. The market value of the enterprise reflects all of the income creation powers of the enterprise's assets. The impression management of relevant stakeholders in connection with the enterprise's power to create income is possible with various methods of financial information manipulation such as earnings management, income smoothing, big bath accounting, creative accounting practices, aggressive accounting, fraudulent financial reporting and window dressing, etc. Earnings management is the manipulation of stakeholders by the enterprise management by announcing wrong or incomplete accounting data or not announcing data at all in order to affect the decisions of the relevant stakeholders about the earning projections of the enterprise.

Earnings quality

Earnings quality is a factor that is free of accounting anomalies, aims to make higher profits with lower costs, reveals the actual earning power of the enterprise, represents the characteristics of the earning creation process and affects the efficiency of capital markets. Earnings quality is an important component of the financial reporting system as an indicator of the level at which an enterprise creates values. A lot of researchers have come up with different definitions taking different points of view towards earnings quality. Lev (1989) defines earnings quality as a decision related to stock price valuation decisions or practicality while Dodd and Graham (1934) explain it as a coefficient reflecting the characteristics of a firm as well as macro factors. Schipper and Vincent (2003: 98) see earnings quality as the consistency between a criterion or explanation and what it represents with reference to FASB (FASB Concepts Statement No. 2, para. 63) while Balsam et al. (2003: 74) point out that earnings quality is a concept that cannot be observed but addressed with various criteria such as the earnings reaction coefficient. Richardson (2003) states that the key criterion in the measurement of earnings quality is deviation of the net income from cash flow while Bellovary et al. (2005) point out that it is the power of reported earnings that reflects the enterprise's earnings correctly and also makes it possible to predict the future earnings of the enterprise. FASB (1998) defined earnings quality as the usefulness and practicality of the current earnings of an enterprise while investors predict future earnings of the enterprise (SFAS No. 132, para. 26). Dechow and Schrand (2010: 168) listed the factors affecting earnings quality as financial reporting practices, characteristics of the governance-management board, the management property, size and performance of the enterprise, political processes, regulations, country-level institutional factors, audit companies, auditor characteristics, non-audit fees, and the public offering. Yel (2009) collected factors affecting earnings quality under seven titles. These are persistence, predictability, stability, relevance, reliability, accrual quality and earnings management. Persistence represents continuity of earnings of the enterprise in years. Schipper and Vincent (2003) state that persistent earnings and sustainable earnings are equal in this context. Predictability is the usefulness of earning components in a way that it increases the prediction abilities of financial statement users in matters in which they are interested (FASB, 1998). Stability is the fact that enterprise earnings do not perform with relatively high volatility in years. Giroux (2004) states that accrual practice supports stability while Bao and Bao (2004) suggest that earnings variability must be lower than sales variability. Earnings reliability means that earned amounts include a relatively large number of predictions and estimations, thus making them mostly free of fault and highly provable. Dechow and Dichev (2002) state that abnormal accruals and errors of estimation regarding accruals affect earnings reliability and therefore earnings quality negatively. Relevance means that earnings are reliable in terms of valuation. Accrual quality is the capability of accruals to transform into cash flow as an earning component (Francis et al., 2006). Earnings management is a deliberate intervention in the financial reporting system aimed at deriving benefits (Schipper, 1989).

Earnings management

Earnings management practices certainly cause significant deformations in the earnings quality and financial reporting culture of an enterprise and it is mostly controversial whether such practices are fraudulent financial reporting. This results from the nature of generally accepted accounting principles that allows for interpretations to a certain degree, difficulties experienced while applying these principles to all possible situations and the possibility for enterprise executives to choose different accounting procedures even in cases where practices are clear. The concept of fraudulent financial reporting is a definition that is different from accounting errors and irregularities that are intentional, includes unintentional misleading actions and behavior and results from lack of attention, lack of knowledge and experience, and negligence. Definitions of earnings management in the literature include different interpretations. Although almost all definitions include intention, there are differences of opinion about whether earnings management has a bad intention such as deceit. Some researchers define earnings management practices as benefiting from the flexibility caused by accounting methods, choosing suitable accounting policies performed within the legal boundaries and can be considered reasonable in order to reach some desired financial results (Ronen and Sadan, 1981; Demski, Patell and Wolfson, 1984; Suh, 1990; Scott, 1997; Demski, 1998; Beneish, 2001; Sankar and Subramanyam, 2001; Mulford and Comiskey, 2002; Giroux, 2004; McKee, 2005) while others define them as legal and illegal tricks that are aimed at deceiving stakeholders and conceal the actual state by hiding from investors what they need to know (Schipper, 1989; Levitt, 1998; Loomis, 1999; Healy and Wahlen, 1999; Tzur and Yaari, 1999; Chtourou, Bédard and Courteau, 2001; Miller and Bahnson, 2002). The US Securities and Exchange Commission (SEC) defines abusive earnings management as using financial results in such a way that they are misrepresented intentionally and to a considerable extent with reference to the financial reporting problems experienced in public companies in the USA in 1999 (SEC, 2000: 12). With this definition, the SEC pointed out that accounting practices must violate Generally Accepted Accounting Principles in order to be considered fraudulent financial reporting.

In this sense, financial reporting that does not comply with accounting principles and standards, exceeds flexibility limits and is aimed at manipulation, must be considered fraudulent. Whether or not they violate generally accepted accounting principles, earnings management practices are the intentional interventions of executives aimed at the manipulation of financial results for various purposes in terms of the process. Earnings management practices are performed with various motivational purposes such as earnings per share (to ensure targeted high and stable profitability), the debt/equity ratio (for low-cost resource procurement), the beta coefficient (for the management of volatility and systematic risk), political and legal regulations (to create tax advantages, reduce political risks and costs), earnings-based premium systems of executives (executives want to increase their wages), contractual liabilities, the public offering, acquisition and merger (to manage company value), and the fulfillment of financial predictions and expectations, etc.

Audit risk

Earnings quality is a concept that is often ignored by financial statement users while evaluating financial performance (Bellovary, Giacomino and Akers, 2005: 72). The diversity of definitions regarding earnings quality has resulted in the lack of consensus on measurement methods. One of the factors affecting earnings quality is the quality of the audit company carrying out the independent audit of the relevant enterprise. The magnitude of the audit company is directly proportionate to earnings quality in connection with audit quality. As for audit companies, the most important criterion for an audit company is its reputation. In the case of possible faulty reporting, we can say that larger audit companies will lose more prestige than smaller audit companies and therefore they will be more tolerant of earnings management efforts (Francis, 2004; Gaver and Paterson, 2007; Cohen, Dey and Lys, 2008; Cohen and Zarowin, 2010; Kanagaretnam, Krishnan and Lobo, 2010). As the magnitude of the audit company also means more experienced audit teams that are specialized in the sector and more advanced technological possibilities, they observe the movements and actions of executives of the audited enterprise on financial reporting more closely and impose restrictions. There are various studies suggesting the imposition of a term of office and rotation for auditors, which are other factors affecting audit quality and increasing earnings quality (Johnson et al., 2002; Myers et al., 2003). Wild (1996) states that the presence of audit committees prevents a decrease in earnings quality. Healy and Wahlen (1999) indicate that an efficient audit makes predictions for executives about future receivables more reliable information. Caramanis and Lenox (2008) state that the number of earnings management practices increases as the time spent by auditors for audit decreases. Various booking items such as stocks, trade receivables, etc., the complication of activities due to the sector of the enterprise, and the gradual increase in the multinationalism of enterprises, etc., make the audit process harder and this makes it difficult for auditors to determine earnings management efforts in a timely fashion. Earnings management efforts must not be considered a responsibility of only external auditors. Internal auditors and audit committees are important elements of the audit process. It can be argued that risk preferences and perceptions, leadership styles and other similar characteristics of the senior management of the enterprise as part of the corporate management mentality are a significant determinant of earnings management behavior and the quality of financial information is affected by this (Hambrick and Mason, 1984: Grant and Parbonetti, 2009). It is possible to come across various studies supporting the notion that terms of office of auditors have a positive effect on earnings quality (Myers, Myers and Omer, 2003; Chen, Lin and Lin, 2008; Cohen and Zarowin, 2010). As for the relationships of audit committees with earnings management practices, there is a significant interaction among the infrequent formation of audit committees determining the characteristics of members of audit committees such as expertise, independence, etc., the governance practices of the audit committee, authorities and responsibilities of the audit committee clearly, and the size of the audit company depending on the quality of the financial information disclosed to the public (Bédard, Chtourou, and Courteau, 2004; Abdul and Haneem, 2006; Sun et al., 2014; Garva, 2015). The Sarbanes-Oxley Act (SOX) adopted in 2002 indicates that the financial skills, qualities and competences of executives forming the audit committee are important elements for increasing the quality of financial reporting. Deterrence is an important element for the audit committee responsible for monitoring the effectiveness of the financial reporting process. The relative status of the audit committee in terms of executives, its reputation, as well as its attitude and resolution against suspicious financial reporting are important characteristics that need attention (SEC, 2002; Levitt, 2000). The financial expertise of audit committee members increases audit quality, limits earnings management practices and reduces internal control weaknesses (Xie et al., 2003; Bedard et al., 2004; Krishnan, 2005; Carcello et al., 2006; Krishnan and Visvanathan, 2008; Dhaliwal et al., 2010; Badolato et al., 2014). Regardless of the purpose and means of earnings management practices, they are a significant issue that needs the attention of auditors. The internal control system and related internal audit activities constitute a significant dimension of independent audit activities. The presence of an efficient internal audit system deters enterprise executives from resorting to manipulation practices. The independent audit is teamwork in essence and people without sufficient knowledge and experience can be incompetent for earnings management practices. If it is discovered that the independent audit company has performed such practices, it causes serious quarrels with the customer enterprise and this can lead to undesirable results for both parties such as losing the customer or receiving negative audit opinions. It can be argued that large and international audit companies face a higher loss of reputation compared to relatively smaller audit companies and therefore they can exhibit a stricter attitude toward such practices (Becker et al., 1998). It is observed that corporate social responsibility and corporate governance practices have a restricting effect on earnings management efforts and are an important criterion for auditors (Hong and Andersen, 2011; Scholtens and Kang, 2012). Capital structures, economic sizes, market shares, public offering ratios of enterprises and whether their share certificates are traded at securities exchanges increase the quality of financial information, thus reducing the audit risk. There are various positive (Frankel, Johnson and Nelson, 2002; Srinidhi and Gül, 2007) and negative (Chung and Kallapur, 2003; Mitra, 2007) studies in the literature on whether the fees obtained from non-audit services offered by audit companies to their customers are related to lower accrual quality as an indicator of financial reporting quality, which has been frequently debated in the period after Enron. Chi, Lisic and Pevzner (2010) indicate that audit company rotation limits actual earnings management practices and the sectoral expertise of auditors and audit fees are related to such practices. The effects of audit management activities, which can be summarized as administrative guidance aimed at preventing or reducing the discovery of earnings management practices by auditors and thus audit efficiency, on audit findings and their evaluation process are a matter that needs attention (Luippold et al., 2015).

Conclusion

Audit risk is the failure of auditors to reveal errors and faults in financial statements that are important in terms of decisions to be made by financial statement users. Audit activities are a process in essence and reflect teamwork. When we look from the viewpoint of independent auditors, this process, shaped mainly by generally accepted accounting principles, audit standards and laws, is closely related to the professional knowledge and experiences of auditors. Legal and professional regulations setting the framework for audit activities have the characteristics of a road map for auditors as a set of basic values and principles. However, we cannot say that this road map always provides clear guidance. In connection with audit quality, earnings management practices are an important subject of financial reporting. Financial information quality and audit risk concepts are subjects that must be considered as an integrated structure and are significant factors affecting the financial decisions of internal and external stakeholders.

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FINANCIAL INFORMATION MANIPULATION

EMİNE KAYA

Introduction

It is assumed that financial information, one of the fundamental building blocks of financial markets, can enhance economic performance in various ways. For this reason, the accounting system in which the financial statements and reports are produced, entertains a certain degree of flexibility to ensure applicability to various situations. Taking advantage of this flexibility, companies can make manipulations on these financial statements to make their financial position and performance look different than they actually are.

The existence of the informational efficiency of financial markets is based on the assumption that stock prices reflect all the information about the company issuing the stocks. In this context, accounting scandals such as Lucent Technologies, Xerox, Anicom, Office Product, Banker Trust, Enron, and Worldcom, which were experienced in the US in the 1990s and 2000s, showed that even the financial information issued by large corporations could be wrong/misleading, and these scandals have undermined the confidence in the financial system, authorities, independent audit firms and credit rating institutions.

Financial information manipulations can be revealed through detailed reviews and investigations by executive authorities. In addition to this, scholars try to determine financial information manipulations through empirical studies in the framework of certain models, moving from publicly disclosed financial information by companies. This study aims to shed some light on the literature by presenting information about the methods, causes, techniques, outcomes and models of financial information manipulation.

Financial information manipulation

Schipper (1989) defines financial information manipulation as intervening in the financial reporting process to gain personal benefit. Mulford and

Comiskey (2011), on the other hand, state that financial information manipulation refers to the managers not reporting information in the financial statements in accordance with the original by using their authority in order to manipulate the outcomes that emerge based on the reported profit information and not reflect the true information about the company performance to the market participants.

A company's free cash flows can be used for both profitable investments and low-return investments by its managers. However, in the event that the managers use the free cash flows in low-return investments, their company cannot grow and financial information manipulation becomes an attractive choice for the managers. In this way, opportunistic managers can camouflage the situation when their firms exhibit negative performance and this can cause their performance to look high.

High free cash flows provide an opportunity for the manager to make a financial information manipulation, and this situation yields to the problem of representation. So much so that Jensen (1986) argues that a firm using its free cash flows in wrong expenditures and investments rather than maximizing the shareholder's wealth creates the representation problem. In general, managers resort to inflating the profits to increase the stock values and make investors have a positive opinion about the future performance of the company (Rahman and Abdullah, 2005).

Fluctuations in income and a drop in profitability for a firm can be a driving force for the manager in resorting to financial information manipulation. If the firm’s profitability is decreasing as its free cash flows are increasing, this can be a sign that financial information manipulation is being committed (Ghazali, Shafie and Sanusi, 2015). By manipulating financial information, companies cause the trust in the financial system to be undermined as a result of presenting financial information in a misleading/wrong way, and investors investing in securities suffer deficits and funds to be allocated inefficiently in the capital market; as a consequence of this, financial information manipulation bears the features of a cost-enhancing element for economic activities.

Financial information manipulation methods

Financial information manipulation occurs through the methods enumerated below (Mulford and Comiskey, 2011):

- **Earning management**: Managers manipulate financial outcomes by deciding on and conducting certain operations during financial reporting in order to mislead some users about the economic performance of the company and affect certain processes regarding the profit figures disclosed to the public. In this case, accounting data are intentionally and deliberately misrepresented, or not even explained at all.

- **Profit stabilization**: This refers to the efforts of the managers of a company to make the profit look as if it is in a stable trend in order to change the risk perception on the company's profit. In this manipulation method, the profits that are attempted to be stabilized can be enumerated as: net profit, net operating profit, profit before tax, profit per share or dividend per share.
- **Creative accounting applications**: There is no consensus in the literature about the definition of creative accounting applications. However, in the literature, it is used to stand for all financial information manipulation methods such as creative accounting applications, profit management, profit stabilization, aggressive accounting applications and deceptive financial reporting. In general, the creative accounting applications method focuses on the classification of the balance sheet, the income statement and cash flow statement elements. The operations and applications that form the basis for the realization of the creative accounting applications are specified below.
    1. Creation of fictitious income or recognition of income before accrual, disclosure of assets and liabilities in unrealistic figures;
    2. Recognition of interest costs aggressively or an extension of the depreciation period;
    3. Classification of extraordinary income as operating income; and the inclusion of operating expenses in the extraordinary expenses item;
    4. Declaration of the cash from investments and other ordinary operations as the cash from operations, in order to create the perception that the company's operating liquidity is high.
- **Aggressive accounting:** This is a type of financial information manipulation which is committed through operations such as recognition of consignee sales and prices of goods that are invoiced but not yet delivered to the customer, as sales revenue and the deferral of payments related to the activities recorded as revenue to the future terms.
- **Big clean up accounting:** This is a type of financial information manipulation committed through the operation of omitting the idle assets from the balance sheet by declaring these as expenses by the new management in the periods when the company management is replaced. In this way, the perception that the former management

showed a poor performance whereas the new management exhibits a successful performance is attempted to be established.

- **Deceptive financial reporting**: Deceptive financial reporting, which is a merger of aggressive accounting and creative accounting applications that are among financial information manipulations, occurs with the company giving wrong/misleading information about its financial state and the results of its activities. Because the outcomes of deceptive financial reporting incorporate high levels of scienter and involve counterfeit documentation, it is considered to be operations and applications that form a basis for crime.
- **Accounting errors and irregularities**: Accounting errors and irregularities are defined as the disclosure of wrong information without deliberate intent, or failing to give certain information. Accounting errors and irregularities occur by erroneous accounting forecasts, making certain mistakes during the preparation of the financial statements, and making mistakes during the determination, classification and public announcement of the financial information amounts.

Estimation of the financial information manipulation

Most of the models used in the estimation of financial information manipulation are based on accruals. There are two basic points in the implementation of these models. These are: trying to determine the reason for the managers to resort to financial information manipulation and to determine the effects of discretionary accruals or accounting policy choices. Discretionary accruals are difficult to measure which starts with the calculation of the total accruals. Total accruals are measured based on two approaches: the cash flow statement approach and the balance sheet approach. Besides, total accruals consist of the sum of the discretionary accruals and the non-discretionary accruals. The measurement of total accruals is shown in Equation (1).

$$TA_{it}=DA_{it}+NDA_{it} \quad (1)$$

In Equation (1), TA_{it}, indicates the total accruals of company i in term t; DA_{it}, indicates the discretionary accruals of company i in term t; and NDA_{it}, indicates the non-discretionary accruals of company i in term t. After the total accrual data are calculated through the formula specified in Equation (1), non-discretionary accruals are subtracted from the total accruals to find the discretionary accruals; this situation is specified in Equation (2) below.

$$DA_{it}=TA_{it}-NDA_{it} \quad (2)$$

The models used to determine financial information manipulation based on accruals are listed below (Stolowy and Breton, 2004).

- **The Healy model:** Healy (1985) argued that managers who receive incentive premiums for their performances manipulate financial information using total accruals to increase their incentive premiums. Healy (1985) stated that managers resort to financial information manipulation through income enhancing accruals when they want to increase the amount of their incentive premiums; and through an accrual policy decreasing the current term profit when they cannot increase the incentive premiums. However, Healy (1985) does not categorize accruals into discretionary and non-discretionary accruals.
- **The DeAngelo model:** DeAngelo (1986) developed a model similar to that of Healy to test the hypothesis that financial information manipulation can be committed by understating the stock values during the stage of recalling the stocks when a public company becomes a non-public company. DeAngelo (1986) contends that managers get into a huge conflict of interest during the first initial public offering. In addition, according to DeAngelo (1986), managers resort to financial information manipulation to protect the rights of the shareholders of a public company and to make the recalling of the stocks with low prices.
- **The Jones model:** Jones (1991) suggests a model to determine financial information manipulation through discretionary accruals. The Jones model suggests that profit can be decreased though the discretionary accruals. The model is specified in Equation (3) reported below.

$$TA_{it} \,/\, A_{i(t-1)} = \alpha_1\left(1 \,/\, A_{i(t-1)}\right) + \alpha_2(\Delta REW_{it})/A_{i(t-1)} + \alpha_3\left(PPE_{it} \,/\, A_{i(t-1)}\right) + \varepsilon_{it} \quad (3)$$

From the symbols in Equation (3), ΔREW_{it} and PPE_{it}, indicate the change in the sales revenues and the gross tangible assets, respectively, of company i in term t; and $A_{i(t-1)}$, indicates the total assets of company i in term t-1.

- **The corrected Jones model:** Criticizing the assumptions of the Jones (1991) model on sales, Dechow, Sloan and Sweeney (1995) developed the corrected Jones model by also adding to the model the change in the receivables. The mathematical formula of the model is presented in Equation (4).

$$TA_{it}/A_{i(t-1)} = \alpha_1\left(1/A_{i(t-1)}\right) + \alpha_2(\Delta REW_{it} - \Delta REC_{it})/A_{i(t-1)} + \alpha_3\left(PPE_{it}/A_{i(t-1)}\right) + \varepsilon_{it} \quad (4)$$

In equation (4), ΔREC_{it}, indicates the change in the receivables of company i in term t.

- **The Kothari model:** Also identified as a performance-matched discretionary accrual measurement method, the Kothari Model is established by adding the return of assets to the corrected Jones model. The Kothari model is reported mathematically in Equation (5).

$$TA_{it}/A_{i(t-1)} = \alpha_1\left(1/A_{i(t-1)}\right) + \alpha_2(\Delta REW_{it} - \Delta REC_{it})/A_{i(t-1)} + \alpha_3\left(PPE_{it}/A_{i(t-1)}\right) + \alpha_4 ROA_{it-1} + \varepsilon_{it} \quad (5)$$

In Equation (5), ROA_{it-1}, indicates the return of assets of company i in term t-1.

- **The Larcker-Richardson model:** The Larcker-Richardson model is formed by adding the market value/book value ratio and the real operating income to the Corrected Jones model and the mathematical formula is shown below.

$$TA_{it}/A_{i(t-1)} = \alpha_1\left(1/A_{i(t-1)}\right) + \alpha_2(\Delta REW_{it} - \Delta REC_{it})/A_{i(t-1)} + \alpha_3\left(PPE_{it}/A_{i(t-1)}\right) + \alpha_4 BM_{it} + \alpha_5\left(CFO_{it}/A_{i(t-1)}\right)\varepsilon_{it} \quad (6)$$

In Equation (6) above, BM_{it} and CFO_{it}, indicate the market value/book value ratio and the real operating income, respectively, of company i in term t.

- **The industry model:** The industry model assumes that non-discretionary accruals are fixed in each term. Since the determinants of the discretionary accruals are assumed to be the same for all companies in this model, financial information manipulation is focused over the median value of total accruals.
- **The Beneish model:** In this model, Beneish (1997) argues that the use of accruals *per se* is not right for the determination of financial information manipulations, and that more effective outcomes can be achieved by including different items such as changes in the sales index, the commercial profit index, and the asset quality index.

Conclusion

The cost of the manipulation of publicly disclosed financial situation information, in order to affect the stock values, establish good relations with the shareholders, make the performance of the manager look high, and to change the risk perception of investors about company performance, on the economy and the financial system is rather grave. On the other hand, there is not yet a method to objectively determine the existence and severity of financial information manipulation.

Those who suffer most from financial information manipulation are the investors. The investors are deceived and their trust in the market is undermined in the event of financial information manipulation. So much so that maintenance of the investors' trust in the market is of strategic importance for the function of the capital market as a supporter of economic growth. In this way, the manipulation of financial information causes the inefficient allocation of resources.

Financial information manipulation is carried out by benefiting from the flexibilities available in accounting principles and standards. The manipulations of financial information are still ongoing, as the financial institutions and financial advisers who provide consulting services to the companies manipulating financial information do not make the necessary contributions for the elucidation of these financial information manipulations.

Companies should aim to make great profits in the long run by gaining prestige and trust rather than by making big profits in the short run by manipulating financial information, and honesty and ethics rules should be adopted organization-wide. In addition, in order to prevent financial information manipulation, it is necessary to proliferate the accounting principles and standards and the practice areas for auditing principles and standards, and improve the professional codes of conduct of the members of the profession through training and applications.

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Evaluating The Evidence in Terms of Independent Auditing and Forensic Accounting

Ersin Kurnaz

Introduction

Today, developments such as the disappearance of commercial borders, the increase in the number of transactions of businesses, and especially the execution of transactions over the internet have increased the importance of the need for accurate and reliable financial information. This situation became one of the most significant factors directly affecting the scope of the audit, the level of significance, and the amount and quality of the evidence to be collected when the independent auditors plan the audit on the customer's business. At the same time, it brought about the diversification of the types and gathering techniques of the evidence. Especially the increased use of technological products in the businesses made it difficult to test the claims against the accuracy of the financial statements provided by the management. Hence, the significance of the electronic audit evidence, as well as the traditional audit evidence, has increased. All of these developments caused the information users both within the business and outside the business to change their point of view towards the audit evidence.

Factors such as the proliferation of the businesses on a global scale and the increase of the business transaction processes that are difficult to control with the advent of the technological possibilities, have increased the variety and quality of the financial crimes, frauds, and corruption. It has become almost impossible to detect and prevent such crimes or deceits with traditional methods. The inadequacy of the classical methods accelerated the development of new methods, and as a result of these studies, the profession of forensic accounting emerged. The duty of the forensic accountant is to ensure that the accounting crimes or frauds, either submitted to the court or not, are uncovered. In other words, the forensic accountant is needed for the issues where the law and accounting intersect. The amount of evidence that the forensic accountant will collect, the evidence types, and the evidence collecting techniques are also of great importance to accurately uncover the frauds or crimes.

The purpose of this study is to explain the aim of evidence collecting in the independent auditing and forensic accounting process, the similar and different aspects of the evidence collected in both fields, the meaning of these aspects of evidence for the users, and what type of evidence can be used as proof in the cases, either submitted to the court or not. Accordingly, independent auditing and forensic accounting are generally mentioned. Besides, for a better understanding of the issue, the term evidence is first discussed in terms of jurisprudence, and then in terms of both independent auditing and forensic accounting. Finally, in line with the purpose of the study, the theoretical explanations on the subject are made.

Independent auditing

Today, the increase of investment items has caused a numerical increase in the financial data of businesses. These data also increase the probability of making mistakes when preparing the content of the financial statements. One of the practices developed to reduce the probability of making mistakes or increase the accuracy and reliability of the information on the financial statements is independent auditing (Kavut, 2001). Independent auditing is an activity that objectively determines whether the financial statements submitted by the management are prepared according to generally accepted accounting principles and reports this to those concerned (Erdoğan, 2002). The independent audit process is not conducted confidentially in the business. Therefore, all employees can have knowledge about the subject (Ranallo, 2006).

The purpose of independent auditing is to provide a reasonable assurance as to whether the financial statements contain material misstatements within the framework of the generally accepted accounting principles. It is under the responsibility of the independent auditor; to identify the transactions that are non-compliant with the legislation, if any, in the claims of the management about the financial statements of the business; to report these to institutions such as the CMB,[1] BRSA,[2] the POA,[3] and especially to the management; and to specify this situation in the report. In other words, the independent auditor is responsible for

[1] Capital Markets Board of Turkey.
[2] Banking Regulation and Supervision of Agency in Turkey.
[3] Public Oversight, Accounting and Auditing Standards Authority in Turkey.

determining the audit risk of the financial statements by taking into account the internal control system of the business and giving an assurance that there is no significant misstatement or fraud in the financial statements. Because in the independent audit not all of the information, but the information selected by sampling from the financial statements, is audited, the assurance provided by the independent auditor is not a conclusive one but only a reasonable assurance (Pamukçu, 2017).

However, an important issue that needs to be explained at this point is the blockchain technology. The blockchain is known as the technology behind Bitcoin (Rosenberg, 2017). The blockchain can be defined as a decentralized and distributed digital ledger technology. In other words, it is a distributed database that provides a follow-up with the encrypted transactions. If this technology is applied to independent auditing, the auditing practices will be carried out for all of the records rather than the sampling method, and absolute assurance will be given instead of reasonable assurance for the reality of the financial statements (Tekbaş, 2018).

The independent auditor is the person who is working solo or in an auditing company and providing professional auditing services (Başpınar, 2005: 41). Bearing in mind that significant misstatements may exist in the management's claims regarding the financial statements, independent auditors should plan the audit work with continuous professional skepticism and an inquisitorial approach and examine the validity of the evidence accordingly (Güredin, 2010).

In a nutshell, that the independent auditor has presented an opinion that the financial statements were prepared in accordance with the generally accepted accounting principles does not necessarily mean that the financial statements are one hundred percent correct. However, the financial statement users will make their evaluations considering that the information in the financial statements does not contain any significant mistakes that may affect their decisions. In this case, the opinion presented by the independent auditor in the report on the financial statement has a level of importance that can affect the decisions of the users such as the business management, investors, credit institutions, the CMB, BRSA, and the POA which make their decisions by taking the statements into account.

Forensic accounting

Rapid developments, especially in the field of information technologies, have exposed both businesses and countries to a world where the concept of space does not exist. This situation has changed the dimensions of committing or uncovering all types of fraud, corruption and crime in businesses. It has become almost impossible to uncover these kinds of crimes committed by developing advanced technical methods with traditional methods. Persons who are educated in this field, specialized, and able to evaluate both the legal and accounting dimension in all its parts, are needed to uncover these crimes being committed by misusing developments in information technologies (Aktaş and Kuloğlu, 2008).

All these developments paved the way for the emergence of some new terms or professions. One of these is the term *"Adli Muhasebe"* in Turkish, which is called *"Forensic Accounting"* in the international literature. The term “forensic” refers to the legal part and the term “accounting” refers to the business transactions (Karacan, 2012).

Forensic accounting can be defined as “the use of investigative techniques, integrated with accounting and business skills, to develop information and opinions for evidence in court and for use by expert witnesses, solving complex financial riddles – investigating suspected fraud, determining damages, valuing businesses and resolving other financial disputes using an intuitive approach” (Oberholzer, 2005). Unlike the independent auditing process, the forensic accounting process can be carried out secretly, hidden from employees in order to conduct the investigation in a healthy way (Ranallo, 2006).

The purpose of forensic accounting is to find the persons who committed the alleged fraud or crimes, to reveal the extent of the damage caused by the situation in question, and to submit the collected evidence to the businesses and the court (Singleton et al., 2006).

The fact that businesses are helpless about uncovering the ever-increasing fraudulent transactions has also changed the quality of the services that businesses expect from auditors. This is because businesses think that auditors are responsible for uncovering such situations. However, the identification or uncovering of the fraudulent transactions in the financial statements is not included in the job description of the independent auditors. Therefore, this situation has increased the need for the forensic accounting profession (Kaya, 2005). Likewise, the increase of international trade and investments with globalization, and the increase of fraud, corruption and disagreements together with these developments have revealed the necessity of forensic accounting (Pamukçu, 2017).

The forensic accountant can be described as "the person who focuses not on the apparent side of the case but the reasons lying behind it, approaches the documents with suspicion, investigates the real thoughts behind the intentions of the people, collects the evidence meticulously, and prepares the report as an expert witness" (Crumbley, 1995). Litigation support, counseling, expert witnesses, fraud auditing, and uncovering the crimes can be counted among the duties of the forensic accountant (Toraman et al., 2009).

In a nutshell, a good forensic accountant, like an independent auditor, should act with professional skepticism and inquisitorialness. Among the main users of the report prepared by the forensic accountant based on conclusive evidence are the plaintiffs or the defendants or businesses. In the cases within the forensic accountant profession's scope of duty, the final decision on an issue, either submitted to the court or not, is binding for all users.

The evidence in terms of independent auditing and forensic accounting

Within the framework of the discussion above, it is seen that there are similar and different aspects of independent auditing and forensic accounting. The most important similarity between the two activities is that they serve a common purpose. The point at which independent auditing and the forensic accountant intersect is in ensuring that phases such as the preparation and submission of financial statements are carried out in accordance with the legislation. The tools and methods used to achieve this purpose may differ. The quality and validity of the evidence gathered are among the main differences between independent auditing and forensic accounting. Before evaluating the concept of evidence in terms of independent auditing and forensic accounting, in order to be able to better understand the subject, the concept of evidence in the juridical science is generally discussed.

In juridical science, in the case of conflict about an issue, any information or document collected in order to reveal the truth and help the judge form an opinion about finding a solution for the case, is considered as the evidence. However, in order for something to be regarded as evidence, it must have certain features (Bayraktar, 2011). In a decision of the Court of Cassation Penal General Assembly (CCPGA) on the features that the evidence should have, it gave the following ruling: "the truth should be revealed through the evidences that are sensible, realist, and represent a part or whole of the case or the evaluation of the evidences as a whole. Otherwise, it is absolutely contrary to the purpose of the criminal procedure to reach a ruling based on a set of assumptions" (CCPGA, E. 1993/6-79: 1565). Thus, the Court of Cassation draws the limits of the features that the evidence must have.

The collected evidence must prove or disprove the whole or a part of the case to be solved. In other words, it is a legal obligation for the evidence to be useful and substantiating to reveal the truth. Therefore, in line with the principle of "the truth is in the details", the evidence should be collected and evaluated meticulously (Bayraktar, 2011).

In terms of independent auditing, evidence can be defined as "any information, document, and records used by the auditor, in particular to determine the degree of the conformity of the audited information with the predetermined criteria and especially as a basis for the audit opinion". In this regard, the independent auditor should collect sufficient and reliable evidence to identify the degree of conformity of the financial statements with the generally accepted accounting principles and to meet the requirements of the standard of “expressing opinion”, one of the reporting standards. The evidence to be collected can be classified into two main categories: the evidence obtained from the accounting system and the supporting audit evidence. The following can be given as an example for the evidence obtained from the accounting system: the general journal, ledger, checks, trial balance book, and the abstract of account. The documents obtained through the transactions, such as invoices, contracts, verification, and investigation, are among the supporting evidence (Bozkurt, 2010).

The auditor may decide on the amount of evidence to be collected in the audit process by his professional experience and subjective judgment. However, factors such as materiality, risk, quality, economic factors, the size and nature of the main mass and notably the internal control system affect the amount of evidence to be collected (Arens et al., 2012). Likewise, the quality of evidence as much as the amount of evidence has an important role in achieving the purpose of the audit. Here, the quality of evidence means the suitability or reliability of the evidence. The relevance of the evidence, its source, objectivity and timeliness are among the factors determining the quality of the evidence to be collected (Güredin, 2010).

The independent auditor has to collect many kinds of evidence to achieve a healthy outcome. Different evidence-collecting techniques can be used to obtain all this evidence. Techniques such as physical examination, observation, recalculation, investigation, verification, remonitoring the registration system and analytical analysis are among the main evidence collection techniques (Toroslu, 2007).

In terms of forensic accounting, the evidence can be defined as "any information, documents, and records, either submitted to the court or not, referred to in order to reach a binding and accurate outcome in connection with a case".

The quality and quantity of the evidence to be collected by the forensic accountant can vary depending on the case subject to forensic accounting. At the same time, the accuracy and validity of the evidence collected can be based on subjective judgment provable by the forensic accountant and also the evidence can be the legal evidence with absolute accuracy and validity. In terms of the quantity and reliability of the evidence, in other words, the sufficiency of the evidence, the professional competence, subjective judgments, and the works of the forensic accountant are the determinants. It can be said that the evidence obtained by the forensic accountant is sufficient if she/he can express the situation that he claims or presents as a result of her/his work to the parties without any suspicion or contradiction (Karacan, 2012).

The forensic accountant can use many techniques to be able to accurately resolve the issue she/he is working on. These techniques may be similar to those used in independent auditing. However, usually not satisfied with these, the forensic accountant can use the methods used in fields such as law, criminology, information technologies, and psychology (Akal, 2014).

Conclusion

Technological developments, the most important stage of globalization today, have increased the variety and significance of information and also brought about unsafe and uncertain environments. This situation makes it difficult for businesses to survive in an environment of global risk and competition. Furthermore, this situation has also made it essential for the business management and investors to confirm the reliability and accuracy of the financial information they need for making decisions.

In order to convince the information users, both within the business and outside the business, that financial information is accurate and reliable, the information in question should be audited by an independent and impartial body. In other words, auditing has become obligatory to increase the accuracy and reliability level of the financial information. Independent auditing is an auditing activity that is independently and impartially carried out to confirm claims about the accuracy of financial statements in accordance with the generally accepted accounting principles. The financial statements that have undergone an independent audit give reasonably reliable information about the business to all the stakeholders of the business.

The independent auditor conducts an audit to present an opinion about the fairness of the business management regarding the financial statements or to determine the conformity level of the audited information with the predetermined criteria. In order to reach this goal, the independent auditor needs to collect evidence either from inside or outside of the business. In line with this, the great quantity and quality of evidence that will form the basis for the predetermined criteria and the auditor's opinion should be collected.

The auditor can determine the amount of evidence to be collected by her/his subjective judgment. However, factors such as the internal control system, materiality, risk, time, and cost affect the amount of evidence to be collected.

In addition, the quality of the evidence and the evidence-collecting techniques are also important for the auditor to reach her/his goal. Because the amount and type of online evidence have increased with technological developments, the auditor should collect the evidence using appropriate auditing techniques. At the end of the independent auditing process, because the auditor did not collect qualitative evidence that can confirm the accuracy of all the information on the financial statements, the auditor reports her/his opinion by using the phrase "while not containing the material misstatements." This phrase means that information on the financial statements may contain mistakes, even if only a few. This situation suggests that the assurance given for the accuracy of the financial statements is not absolute but a reasonable one.

The forensic accounting profession emerged due to reasons such as the scandals involved in international large-scale companies, increasing financial disputes between companies, the digitalization process in the field of accounting and auditing, and the inadequacy of the lawyers in resolving occupational fraud. The points at which the law and accounting intersect constitute the field of interest of forensic accounting. This situation increased the need for persons who are educated in this field, specialized, and able to use the techniques of other disciplines as well as auditing techniques to resolve the case, and have a powerful intuition.

The forensic accountant has to collect evidence when resolving a case that is within her/his scope, like an independent auditor. However, the evidence collected by the forensic accountant has the quality of uncovering not the apparent side of the case but the reasons lying behind it. At the same time, she/he should gather so much information and documents of quantity and quality that will confute the claims not with assumptions but with evidence based on facts. In addition, the evidence collected during the forensic accounting process should be able to respond to questions about the suspects such as who, where, how, and when. Therefore, when resolving a dispute between the parties, the forensic accountant should carefully evaluate the case by collecting all the important or unimportant evidence about the case rather than just sampling. When the features of the evidence obtained by the forensic accountant are considered, it can be said that they overlap with the features of the evidence accepted in judicial science and the binding nature of this evidence is also absolute in terms of the parties.

It can be stated that in the independent auditing process, evidence is collected with the purpose of determining the degree of conformity of the financial statements with the predetermined criteria and forming a basis for the auditor's opinion whereas in the forensic accounting process they are collected with the purpose of confirming claims about the cases that constitute a crime. In addition, because, in the independent audit, the evidence collected is not enough, in terms of quality and quantity, to confirm all of the information on the financial statements, the assurance provided by the independent auditor is not conclusive but only a reasonable assurance. But, because the forensic accountant is responsible for making a decision by collecting all the information, either important or unimportant, regarding the case, the ruling in the report is binding for all parties. In this regard, in the case of any legal dispute, the evidence collected in the forensic accounting process can be evaluated under the category of absolute evidence, whereas the evidence collected in the independent audit process can be evaluated under the category of supporting evidence. However, if the blockchain technology is used in the independent audit process, the evidence collected can be accepted under the category of absolute evidence.

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ACCOUNTING ERRORS

SEYHAN ÖZTÜRK

Introduction

The accounting error and fraud scandals in today's business world harm many sectors, notably the business world. The harm incurred also causes a decrease in confidence in the professions of accountancy and management (Doğan & Nazlı, 2015: 195).

So many mistakes can be made in life. No sooner do individuals notice the mistakes than they try to correct them. Similarly, an accountant can make various mistakes while dealing with a set of business transactions. These mistakes are generally called accounting errors. Hence, accounting errors are seen as mistakes made by personnel who are responsible for keeping and saving the records of a business in the course of an accounting period. These errors can occur in the form of posting on the wrong side, posting the wrong amount, omitting to post, posting to the wrong account, and so on. Attention should be paid at this point to whether the errors are made unintentionally or intentionally.

Error and accounting errors

An error is defined as a mistake or fault committed unintentionally. Notwithstanding that there is generally no scienter in the errors committed, a lack of knowledge and negligence can be the case. In terms of accounting, errors mean unintentional faults on the financial statements, namely the lack of amounts and explanations. According to another definition, accounting errors include unintentional behaviors that are contrary to the legal statute such as the law, regulation, and directives; generally accepted accounting principles; management policies; and other rules and principles accepted as valid (Öztürk, 2016: 7-9).

In dictionaries, the word “error” has meanings such as "mistake, fault, and fallacy." Error, a word of Arabic origin in fact, is defined as “mistake, flaw, fallacy, and a fault committed unintentionally and unwillingly” in Turkish (http://www.tdk.gov.tr,03-312017).

It is possible to consider accounting errors from two angles: in the narrow sense and in the broad sense. Whereas irregularities are expressed as errors in the narrow sense, the irregularities which employees unintentionally cause because of reasons such as forgetfulness, carelessness, and the lack of knowledge, are accepted as errors in the broad sense (Haftacı, 2016: 83).

Basically, an error also contains a lack of knowledge. Moreover, the terms “lack of knowledge” and “error” are legally similar in the narrow sense, such that if the lack of knowledge and the error coexist, they legally constitute an error in the broad sense. Therefore, doubt about the correctness and reality of an act regarding an event or situation removes the error. During either a person’s declaration of intention or formation of intention; the error is considered to have occurred if she/he makes a declaration that is incompatible with his/her intention without any external influence and undesirable reasons such as carelessness and imprudence. The error, in terms of accounting science, can be defined as the mathematical mistakes made in the financial statements and accounting records, or the omissions and unintentional misstatements of the actual data in the application of accounting principles (Okay, 2011: 41).

Accounting errors are the unintentional erroneous preparation of financial statements. The senior executives who are principally responsible for preparing financial statements can make an error as well as the employees in a business (Kaval, 2008: 77).

In addition, accounting errors can arise from not including an event, an amount, or an explanation that should be recorded in the financial statements or including a transaction or amount erroneously. Moreover, situations such as omitting to post a transaction from the ledger, posting a transaction in a wrong accounting period rather than the accounting period it belongs to, posting a wrong amount, and posting to a wrong account as debit or credit also cause errors (Güredin, 2010: 133).

Error-Fraud distinction

Although the terms “error” and “fraud” are seen as having a similar meaning, they basically do not have the same meaning. It becomes possible to make this distinction with small details. It is not only considered in the field of accounting; whereas making some mistakes while doing any work means an error, deliberately making mistakes and inappropriate acts mean fraud. Here, the intention is the principal element (Öztürk, 2016: 9).

In accounting, the term error occurs because of the involuntarily reporting of financial statements with incorrect information, including the omission of an amount or a disclosure. Such accounting errors can be exemplified as follows (Bunget & Dumitrescu, 2009: 118):

- The errors made in the phase of data collection or processing, on which the financial statements are based,
- Making an incorrect accounting estimate due to overlooking or misinterpreting facts,
- The incorrect application of the accounting policy regarding the classification, assessment, description, and disclosure of the financial data.

There is no willingness or scienter in the transactions and events that constitute the accounting errors. In other words, the mistakes in the transactions and the events occur due to the lack of due diligence. This is the most important factor that distinguishes accounting errors from accounting fraud (Erdoğan et al., 2014: 64-65).

Accounting fraud refers to fraudulent acts committed against one or more individuals to obtain an unjust and illegal income. The fraud may include the following examples (Bunget & Dumitrescu, 2009: 118):

- Falsification or alteration of the accounting records or documents,
- Inadequate representation of the assets,
- Omission of the records and documents belonging to the business transactions,
- The recording of transactions without substance,
- An incorrect application of the accounting policies.

In the broadest sense, accounting fraud means to act against the regulations and participate in this crime with the purpose of financial damage, not within the shareholders' knowledge, in the phase of occurrence, documentation, and recording of the events related to the accounting, and reporting these events to the shareholders. As can be understood from this definition, the principal factor that constitutes the accounting fraud is to intentionally make the transaction and the event. The intention means that even though the individual knows that she/he is acting against the law, she/he makes this transaction knowingly and willingly. The intention contains a sense of will. And the will refers to the acceptance of a result that is thought to be related to a situation. As a result, errors and fraud are generally named as acts violating the accounting principles and rules. Whether the event is error or fraud is determined by whether there is an intention in the transactions or events. For example; if a machine that should be recorded in the fixed assets is recorded in the general expenses, arising from not knowing the accounting principles or carelessness, this mistake is regarded as an error. However, if some other similar records are encountered during the audit of the records, these transactions support an intention and a possibility of fraud that can be mentioned here (Erdoğan et al., 2014: 66).

In the light of the explanations made, it is seen that in accounting errors are generally made in the records whereas fraudulent acts are committed in the documents. Since, inherently, fraud is committed in the documents and intentionally, it is not anticipated that it is automatically uncovered within the accounting system (Öztürk, 2016: 9).

For the very same reason, it is a very difficult, time consuming, and costly process to uncover fraud. The automatic control system included in the double-entry recording system used in accounting prevents the probability of error to some extent. But, nevertheless, errors may be made in spite of this control system. This system may be insufficient to detect all errors.

For example; the accounting system cannot detect unrecorded financial transactions (Erdoğan et al., 2014: 65-67). On the other hand, using similar account names for different transactions in the accounts chart of the business can cause frequent mistakes. In such cases, finding and correcting errors causing irregularity would be the appropriate *modus operandi* rather than claiming that the business intentionally committed fraud. Ultimately, if it cannot be determined that the mistake is intentionally made, this mistake is accepted as an accounting error (Bayraklı et al., 2012: 20).

The concepts of accounting frauds and accounting errors are sometimes confused because they refer to keeping the accounting and recording books contrary to tax and accounting principles. In fact, there is a difference between error and fraud in terms of the moral element of the crime. Although the material element of the crime is essentially the same, the difference in the moral element of the crime distinguishes these two acts. That is why, from the point of view of the law, it is not the accounting errors but the accounting frauds that are punishable. When the general principles of criminal law are examined; it can be seen that the material element of the act of accounting fraud is to make accounting entries contrary to taxation principles, accounting principles, and the facts. The moral element of the crime refers to acting intentionally, knowingly, and willingly. In this case, it is difficult to determine that there is an intention in accounting fraud. However, it is accepted that the intention exists in the following cases (Erdoğan et al., 2014: 68-69):

- Irregularities other than extraordinary situations (for example; it is not possible for a business to fail to notice an irregularity with an amount of 5% of the annual sales of the business);

- An error that is detected due to the existence of the double-entry recording system in the accounting overlapping with another erroneous record;
- Frequent repetition of erroneous transactions (for example; repetition of an error many times within a period, making an error in such a manner that it becomes a continuity).

As mentioned earlier, the difference between accounting error and accounting fraud is the different intentions in the act. It is almost impossible to detect the intention clearly. However, some situations can be a symptom of the existence of the intention. As a result, notwithstanding that this situation is an important point in distinguishing error from fraud, the evaluations on a case-by-case basis may differ (Erdoğan et al., 2014: 69).

Causes of the errors

Errors are the mistakes that unwillingly emerge as a result of overlooking some important points and they often arise from a lack of control. There is often no intention and personal interest at the source of the errors. The emerging abnormalities usually arise from systematic faults and can be detected by traditional methods. For this reason, the abnormalities and errors are often not malversation and do not contain any crime within themselves. Controls through statistical sampling can be provided to detect such errors and abnormalities, and the errors can be detected and corrected (Güneş, 2014: 8). Errors made in the field of accounting, as can be understood from the definitions, generally arise due to reasons such as lack of knowledge, workload, lack of due attention, carelessness, negligence, and lack of experience (Gümüş & Göğebakan, 2016: 19).

Ignorance and Inexperience

Along with knowing all the laws, principles, concepts and knowledge that are necessary for implementing accounting transactions and reaching the right result, it is necessary to apply these properly. Accounting personnel who do not know these factors or misapply them even if they know them can cause various irregularities in accounting. The employment of someone who is knowledgeable of technical and theoretical work can prevent the occurrence of errors and also allow employees to work efficiently (Güneş, 2014: 9). That is why the persons working in the field of accounting must have sufficient knowledge and competence. They need to know the professional standards, the laws in force, the regulations, and principles very well. The mistakes of a newly-recruited employee may cause big errors. Because of this, it should be ensured that all employees have adequate knowledge and competence by organizing seminars and conferences related to the profession especially for the newly-recruited employees (Gümüş and Göğebakan, 2016: 19). The first and most important factor that can prevent accounting errors is to employ well-trained, qualified, honest, educated, experienced, and knowledgeable accounting personnel (Bayraklı et al., 2012: 21).

The problems and errors encountered in the field of accounting, like all fields, give experience to the members of this profession. Many errors arise especially from the more recent members of the profession. In order to minimize these errors, it is important that those who will become members of the profession complete their internship with work experience. Partners should be assigned during the job orientation process of the beginners. By this means, the errors resulting from inexperience and ignorance can be reduced to the minimum level (Gümüş & Göğebakan, 2016: 19).

Negligence and carelessness

Professional knowledge and competence are important when accounting events and transactions are carried out. However, professional knowledge and competence are not sufficient alone to avoid the errors. Workers of the accounting profession can make many mistakes due to carelessness. These mistakes appear during the preparation of the adjusted trial balance at the end of the month or year. In businesses with an advanced internal control system, these errors committed unintentionally can be uncovered in a short time and corrected without causing bigger errors (Gümüş & Göğebakan, 2016: 19). Therefore, one of the most important features that the accounting personnel must possess is to be careful and attentive. Errors arising from the lack of adequate attention and care cause problems such as the complete or part omission of the events to be recorded. In the case where errors arising from negligence cause differences in the results of the trial balance, it is possible to immediately reveal this through the automatic control system of the double-entry recording system. Such errors are sometimes brought to light by the reminders of the disadvantaged third parties. For example; in the sales on credit, in errors causing consequences such as decreasing the actual receivable amount and increasing the actual amount of the debt, the situation of the customers or vendors is revealed in this way (Erdogan et al., 2014: 70). As it is understood, situations such as carelessness, indifference, forgetfulness, and negligence cause errors by disrupting the flow of the accounting system (Bayraklı et al., 2012: 36). For this reason, attention and care become the features to be emphasized in the field of accounting as in every field.

Classification of the errors

With the influence of globalization and the development of technology day by day, computerized systems have started to be used in the accounting profession. Although the newly developed computer hardware systems have minimized the errors occurring in accounting, errors arising due to reasons such as ignorance, inexperience, workload, carelessness, and negligence have not been completely eliminated (Gümüş & Göğebakan, 2016: 20). Although it is quite a difficult process to rationally classify and sort out, it is possible to classify them in terms of content, outcome, and impact.

Classification of the errors in terms of content

Accounting errors in terms of content can be classified into two categories, that is, qualitative and quantitative errors.

- ***Qualitative accounting errors:*** Immeasurable, uncountable, and unquantifiable are words referring to qualitative meanings (Bayraklı et al., 2012: 22). Qualitative accounting errors refer to the failure to fully and correctly implement the generally accepted accounting principles and procedures put into force by the related laws. In other words, it can be said that they are mainly qualitative errors. For example; the lack of serial and item numbers in the sales invoice, one of the two signatures missing on the payment slip, etc. Such errors are also called procedural mistakes. Accounting errors made in this way do not affect the remainder of the account, but they are seen as an important indication that the remainder of the account may be erroneous. On the other hand, qualitative accounting errors set the ground for quantitative accounting errors and the increase in qualitative accounting errors increases the possibility of the occurrence of quantitative accounting errors (Erdoğan et al., 2014: 70-71).
- ***Quantitative accounting errors:*** Measurable, countable, and quantifiable are words referring to quantitative meanings. Quantitative accounting errors are defined as the irregularities affecting the remainder of the accounts and the amounts in the

financial statement items. Such errors can be in the form of recording the remainder of the account higher or lower than its actual value. Since the remainder of the account is transferred to the financial statements at the end of the period, in financial statement audits more attention is paid to the quantitative accounting errors as against the qualitative accounting errors (Bayraklı et al., 2012: 23).

Classification of the errors in terms of their outcome

Although it is quite difficult to distinguish between significant or insignificant errors, accounting errors in terms of their outcomes can be classified into two categories, that is, significant and insignificant errors.

- ***Significant Accounting Errors:*** Along with being both significant in number and amount, significant errors in accounting also result in serious and weighty consequences. If such errors are not detected and rectified, they will have a significant positive or negative effect on those who make their decisions using these data (Bayraklı et al., 2012: 23).
- ***Insignificant Accounting Errors:*** *Insignificant errors in accounting are errors that do not positively or negatively affect the decisions of those using the financial statements, and are accepted by the auditors without any request for correction. In practice, various ratios are determined as the materiality criterion and this ratio varies according to the audit environment, the business being audited, the audit subject, and the characteristics of the auditor (Erdoğan et al., 2014: 71-72).*

Classification of the errors in terms of their impacts

Accounting errors in terms of their impacts can be classified into three categories, that is, errors affecting the balance sheet, errors affecting the income statement, and errors affecting both the balance sheet and the income statement.

- ***Errors affecting the balance sheet:*** *Some of the accounting errors affect the balance sheet. These kinds of errors should be immediately corrected. If they are not corrected, the prepared balance sheets will be erroneous and these errors will be transferred from period to period. For example, if an amount to be credited to the capital account is recorded in the retained earnings account by mistake, and if this error is detected immediately, this* *entry must be corrected and recorded. Until such errors are corrected, the balance sheets of the coming periods will be erroneous (Bayraklı et al., 2012: 24).*

- ***Errors affecting the income statement:*** *These errors only affect the income statement. For example, an amount to be credited to the interest income account may be mistakenly credited to the sales account. This error causes the misrepresentation of the income statement. To correct this error, it is necessary to make a transfer from the sales account (temporary) to the interest income account (temporary). If the errors detected are not corrected, the income statement of the related period will be incorrect. But, the financial statements of the next period are not affected by this situation. The reason for this is that the error only affects the temporary accounts and the temporary accounts are closed at the end of the period (Erdoğan et al., 2014: 72).*
- ***Errors affecting the balance sheet and the income statement:*** *The most common accounting errors in practice are the errors affecting both the balance sheet and the income statement. These errors are classified as the counterbalanced and non-counterbalanced errors. Unless the necessary corrections are made to the non-counterbalanced accounting errors, one or more balance sheet accounts will continue to be reported incorrectly. For example, in the case that the depreciation expense is miscalculated, the accumulated depreciation account and the retained earnings account will also be erroneous. This error will continue until it is corrected or until the related asset is fully amortized or sold. In the income statement, only the income statement of the related period will be erroneous and there will be no mistake in the following period statements (Bayraklı et al., 2012: 24-25). Counterbalanced accounting errors refer to the errors that can be counterbalanced at the end of two consecutive periods. These errors often occur during the accruals such as prepaid expenses, prepaid income, paid expenses, and income receivable (Erdoğan et al., 2014: 73).*

Conclusion

An error generally refers to unintentional mistakes. This is the most important criterion that distinguishes errors from fraud. Similarly, accounting errors arise from ignorance and negligence. In terms of accounting, it is possible to define errors as unintentional faults on the financial statements, namely, the lack of an amount and an explanation.

In general, errors can be classified as follows; qualitative errors, quantitative errors, significant errors, insignificant errors, errors affecting the balance sheet, errors affecting the income statement, and errors affecting both the balance sheet and the income statement. What makes the accounting errors important is the possibility that they may cause undesirable and large costs by leading to serious consequences. For this reason, it is important for the businesses, the managers and the employees to identify and correct the accounting errors before they cause serious consequences.

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Effects of Blockchain Technologies on the Accounting and Auditing Profession

Murat Serçemeli̇

Introduction

Accounting science has changed so little although it has been a long time since Luca Pacioli published the book "The Collected Knowledge of Arithmetic, Geometry, Proportion and Proportionality" explaining the foundations of accounting and double-entry bookkeeping in 1494. The transition from paper-based bookkeeping to digital bookkeeping thanks to technology has enabled accountants to do their jobs faster with fewer errors and to find their errors more easily. Now blockchain technology has the potential to change accounting completely (Ovenden, 2017).

Especially for potential characteristics such as reducing errors and fraud in accounting, automating works that are performed manually, etc., will lead to highly important effects in terms of the auditing profession. This study examines the nature and effects of blockchain technology as well as its effects in terms of accounting and the auditing profession.

What is blockchain technology?

Basically, a blockchain is a distributed database where all digital incidents or transactions are stored by all system users. Each transaction here is verified through the consensus of the majority of users in the system. Once entered, the information cannot be erased. Blockchains contain an accurate and verifiable record of each transaction. In the simplest terms, a blockchain is a distributed database that is encrypted and enables transaction monitoring. All users can perform transactions such as connecting to the network, sending new transactions, verifying transactions and building new blocks without any intermediary. Each piece of information is recorded in blocks with improved encryption algorithms connecting them to each other, making it possible to perform transactions without being dependent on a center. As a result, transactions take place in a safe manner directly between the seller and the buyer (Crosby et al., 2016; Metin, 2017).

Blockchain technology eliminates the problem of double spending with the help of public-key cryptographies. Public keys are cryptographically generated addresses stored in blockchains. Each amount of money is linked with an address and a transaction in the crypto-economy is basically the trade of money from one address to another. The striking characteristic of blockchains is that public keys are never linked to a real-world identity. Although transactions can be monitored by everyone, they are realized without revealing the identity of the person (Pilkington, 2016).

Blockchain technology is similar to the Internet. A blockchain is an electronic table that is copied thousands of times via a computer network. Information in a block is kept in a joint database that is continuously agreed on. A blockchain database is not stored anywhere, so its records are generally public and can be easily verified. Everyone on the Internet can access data that are kept on millions of computers at the same time (Rosic, 2017).

What can be done with blockchain?

Blockchain technology offers both financial and non-financial applications in a wide range. Financial institutions and banks no longer see blockchain technology as a threat to conventional business models and they are conducting research on innovative practices in this field and looking for opportunities. The non-financial practice opportunities are limitless. All legal documents, health records, and copyrights in the music industry, notary transactions, private securities and marriage certificates can be listed among them. Their presence can be proven with blockchain technology. The anonymity or confidentiality objective can be achieved by saving the footprints of digital assets instead of the digital assets themselves (Crosby et al., 2016).

For now, cryptocurrencies such as Bitcoin are the main asset whose presence has been confirmed and the change has been approved. However, viewing blockchains only from this perspective would be a shallow approach. All assets that come to mind can be listed among such assets. For example; many different factors such as title deeds, registries of real estate, agreements, patents and wills of people can be listed among such assets.

What are the benefits of blockchain technology?

The main characteristics of blockchain technology open a door in many types of transactions to get third parties out of the way, reduce transaction costs and increase the innovation potential in all important industries. Blockchain owes its potential to its many valuable characteristics (Schatsky & Muraskin, 2015):

- **Reliable and available:** As it is used by a wide range of participants, it does not contain any points of failure and has been designed in a way to resist outages and attacks. If any node in a network of participants fails, the others will continue to operate, maintaining the information's availability and reliability.
- **Transparent:** Transactions on the blockchain are visible to participants, thus increasing audit and trust.
- **Immutable:** It is almost impossible to make any changes in the blockchain without any detection. This increases confidence in the information it carries and reduces opportunities for fraud.
- **Irrevocable:** It is possible to perform transactions in a way that they cannot be undone, thus facilitating administrative processes and increasing the accuracy of records.
- **Digital:** Almost all assets and documents can be encrypted and limited or shown as a bookkeeping entry. This means that blockchain technology has a field of application that is even larger than what has been imagined so far beyond the current fields of application.

The power of blockchain technology promises rich advantages for accounting companies. Some of them can be expressed as follows (Eisenberg, 2018):

- **Improved Efficiency:** Well-designed blockchains are fast and powerful databases. Getting data into and out of the system can be performed more efficiently than old accounting software applications.
- **Reduced Errors:** The greatest advantage of using blockchains emerges in errors while entering data. Smart contracts together with the data within the chain will make many accounting functions automatic, reducing human error.
- **Easier Reconciliation:** By utilizing smart contracts, accountants can automate many of the tasks associated with reconciliation, making this end-of-month/year chore less of a burden.
- **Reduced Cost:** An increase in efficiency and a reduction in errors in any system results in reduced cost. Following the initial adoption

cost, accounting firms can expect to see faster cost savings compared to conventional accounting systems.

- **Reduced Fraud:** The immutability of the blockchain makes it highly difficult to perform fraud using such a platform. In order to alter a record, the same change would have to be made on all copies of the distributed ledger at the same time and this is highly infeasible.
- **Improved Regulatory Compliance:** The improved security offered thanks to the distributed nature of the blockchain can greatly simplify the burden of an agency to satisfy regulatory demands. As more regulatory authorities adopt blockchain technology, it can become mandatory in certain crucial financial sectors.
- **Reduced Auditing:** One aspect of the blockchain for accountants is its ability to reduce audits. Thanks to the power of smart contracts, many auditing functions can be automated, reducing the time an auditor needs to spend looking at records. Moreover, the inherent traceability built into the blockchain makes auditing fast and easy.

Effects of blockchain technologies on the accounting and auditing profession

The blockchain is a decentralized, distributed ledger whose same copy can be saved, displayed and monitored by all participants in real time. The ledger cannot be controlled by a person or organization; the control of the network is distributed among the users of the network. This means that all changes have to be confirmed by all parties and records are made more secure compared to other systems and cannot be changed or destroyed. This has strong effects on both payments and ways of audit and therefore on accountants. The blockchain can help reduce accounting, audit and compliance costs dramatically and eliminate the need for an accountant or auditor (Ovenden, 2017).

Conventional accounting practices require labor-intensive efforts and this causes high manpower costs and low efficiency especially at the end of the month/year. The blockchain changes general accounting techniques to ensure that changes in each bookkeeping activity can be monitored on the blockchain (Simon et al., 2017).

There are many issues that must be known by accountants and auditors about blockchain technology. Firstly, members of the accounting profession need to acquire a deep understanding about the operation of this technology. Secondly, they will need to comprehend the nature of the relationship between accounting and audit rules and this technology (Tysiac, 2017a).

This technology will change not only the ways of conducting audits but also the approval time of financial statements. Reduction of errors thanks to transactions performed on the blockchain will facilitate the audit process as well. This technology also offers limitless opportunities for accounting practitioners who wish to learn and eventually master blockchain technology (Smith, 2017).

The blockchain-based distributed ledger structure brings triple entry accounting into question and makes redundant the currently available accounting and audit activities. This does not mean the elimination of this profession's practices but makes sure that new roles are determined for the profession within the new technological ecosystem. Moreover, as it will be possible for members of the profession to monitor the measurement of the financial status and performance of the enterprise in real time, new changing professional functions will be required such as offering consultancy services in order to prepare enterprises against environmental risks (Uçma Uysal & Kurt, 2018).

The blockchain has an enormous effect on auditors who act as an independent third party to verify the financial statements of a company. The blockchain will solve the confidence problem in particular and reduce the risk of manipulation by company management on ledgers that can mislead the auditor (Lazanis, 2015; Ovenden, 2017).

Thanks to the automatic update of distributed ledgers, reporting and reconciliation will become easier than ever. When all transactions are saved in a single place together with the details, it will be easier for computers to automatically save daily transactions (Rosenberg, 2017).

The blockchain will be able to play a holistic role regarding the possible method of audit. All audit procedures require the verification of transactions stated in a company's ledger and financial statements. The blockchain can do this without using third parties. Theoretically, everything in a company ledger can take place on a blockchain and it will not be necessary to employ an auditor to reconfirm them anymore (Lazanis, 2015).

No postponing will be necessary within the process thanks to the blockchain system. End-of-month transactions will be completely over in this world of instant transactions. As transactions are completed very rapidly, accountants will not need to worry about the timely registration of transactions. With blockchain, assets of enterprises will become more secure and more traceable. When a transaction is performed in this technology, it is saved in other ledgers in the world at the same time as it is entered in the enterprise's own ledger. At this point, everyone possesses an indisputable copy of the asset. For example, in the event that a share certificate is purchased, sold, repurchased and resold, a record that can be traced back to its presence on the Blockchain is created. Fraud will be reduced to a considerable extent and accountants will benefit from this. Audit transactions such as examining phone calls and e-mails, etc., will not be needed to audit an asset. It will be possible to monitor the whole history of an asset perfectly with one click while creating an audit log (Rosenberg, 2017).

When auditors give their opinions, people believe that they have done a good job and therefore the financial statements can be trusted. It is thought that all interests are put aside for the protection of the public but this is not always the case. Sometimes auditors can be prejudiced, creating scandals like Enron. The blockchain will have an effect on an audit as the auditor fulfills his/her function of verifying the accuracy of the financial statement of a company. As transactions are recorded on a block in an accurate and irrevocable manner, it will be unnecessary for the auditor to verify the accuracy of the transactions again. Therefore, the role of the auditor will decrease or disappear (Lazanis, 2015; Ovenden, 2017).

The blockchain provides great facilities for solving natural problems resulting from multiple complicated and different sources and human faults (Ovenden, 2017).

Companies and industries can develop unique blockchain rules based on their needs. Regardless of such needs, accounting and audit teams will benefit from more detailed, traceable, and fraud-free transaction records (Rosenberg, 2017).

Audits will be faster, more accurate, better and automatic with blockchain-based data. Transactions that took weeks and months before may be reduced to hours and days. A small audit team can reach more information, review more processes and document results more efficiently than ever (Rosenberg, 2017).

Blockchain technology will help accountants monitor financial performance in real time. As blockchain technology is built on and supports an Internet-based and decentralized platform, monitoring flows and outputs from an enterprise will be simpler. This blockchain structure, which is based on the gradually increasing use of cloud computing technology by both accounting organizations and client companies, represents a logical step in the same direction. As both enterprise owners and accountants will be able to keep up with these technological advancements in the business world, the positions of accountants will evolve into a position of reliable business consultants (Smith, 2017).

All transactions can be viewed thanks to the transparency of the blockchain and this shortens the durations of works such as sampling and verification, etc., performed by auditors. This will also enable auditors to gain time to investigate abnormalities and focus more on controls (Tysiac, 2017b).

As more assets and processes are included in blockchain solutions each passing day, access to blockchain information will be more efficient. Most of the manual data extraction and audit preparation activities that are labor-intensive and time-consuming for the management and personnel of an enterprise may be eliminated. Accelerating audit preparation activities might help reduce delays between transaction and verification dates which are one of the most important criticisms of financial reporting. Shortening the delay time can provide auditors with opportunities to increase the efficiency of financial reporting and audit by focusing on risky and more complicated transactions and carrying out real-time routine audits (www.aicpa.org).

Conclusion

Blockchain technologies have the potential to create a change that is as great as the change made by Internet technologies in life and they will affect the fields of accounting and audit like many other fields.

Blockchain technology will bring both opportunities and threats for the accounting and audit professions. Understanding the possibilities of this technology and its effects on the professions will be necessary for practitioners who want to follow up-to-date and relevant information in a rapidly changing market. Although it is possible to think that these professions will be redundant as many transactions performed by accountants and auditors are automated, it would be wrong to argue that they will disappear altogether. On the other hand, these professions will be subject to change and practitioners of these professions will need to improve themselves in order to keep up with new technologies.

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ELECTRONIC FINANCE

UĞUR SEVIM

Introduction

The age of industry that started with the industrial revolution in the early 19^{th} century gave way to the information age as of the last quarter of the 20^{th} century. Many current social, cultural and economic activities in the world are mostly shaped in accordance with the requirements of the information age in which we are living. Fast-moving technology has a significant effect on daily life in all aspects.

There is no doubt that the Internet lies at the bottom of the serious momentum gained by the information age in a very short period of time. Internet technology is one of the main factors for transferring information rapidly as mentioned before or, in other words, making it very easy to access information in today's world.

The advancements in information technologies led by the Internet make it necessary for the business world to redesign itself in order to keep up with these developments. Regardless of sector or scale, all enterprises benefit from the advancements in information technologies to some extent while planning their activities today.

Information technologies provide many advantages for enterprises such as reducing costs, increasing revenue, saving time and space, and improving technology in today's world that is named the Internet age by many people. Finance is probably the sector where it is necessary to use information technologies most intensively. Especially economic products developed in the field of banking have critical value for the proper operation and improvement of the current commercial system.

The definition and scope of finance

E-finance applications started being used intensively especially in B2B (Business to Business) and B2C (Business to Customer) transactions as of the mid 1990s as the Internet was used as a distribution channel in addition to the traditional distribution channels thanks to the advancements in information and communication technologies. In this sense, institutions operating in the finance sector, especially banking, make significant investments in e-finance and use electronic distribution channels effectively in order to acquire new customers and retain available customers (Erdoğdu, 2002):

It is striking that there is no commonly accepted definition of electronic finance. However, some definitions of e-finance in the literature are as follows:

E-finance is to offer financial services to markets by using electronic communication and calculation possibilities (Allen et al., 2001).

Electronic finance is financial transactions performed by individuals or non-financial institutions using the Internet or a similar communication network (Erdoğdu, 2002).

E-finance is to offer financial services in all electronic environments including money, banking, payment, trade, brokerage, and insurance (Zekos, 2004).

In the light of these definitions, it can be said that electronic finance includes especially the following in general (Mittal and Lloyd, 2016):

- Commercial banking and related services (checking accounts; debit and credit cards; and payments);
- Supply chain and consumer financing;
- Online brokerage and related security services;
- Personal finance management;
- Online funds; and
- Online insurance.

Usage areas of electronic finance

Some important B2B transactions such as payment systems, electronic trade platforms, financial information and senior consultancy services, and B2C transactions such as e-money are included in e-finance applications. Transactions performed with smart cards are used in many counties and have reached a significant usage volume and other stored value devices are used as an electronic money and transfer tool as a component of e-finance (Erdoğdu, 2002). In this sense, today electronic finance has a wide range of usage areas ranging from banking to brokerage and from brokerage to insurance as stated before. From this point of view, it will be useful to evaluate the most common areas of use by means of examples in order to comprehend the subject.

Electronic banking

Electronic banking is defined as the automatic and direct delivery of new and conventional banking products and services to customers through electronic and interactive communication channels (Simpson, 2002: 316). It became necessary to redefine and therefore reshape the known classical working styles of banks after electronic banking stepped in. In this way, both local and foreign banks started to make significant technological investments through electronic banking services such as Internet banking, mobile banking, electronic fund transfer (EFT), automatic teller machines (ATM), point of sale terminals (POS), credit cards, bank cards, online payment of bills, etc., with the aim of reaching out to customers and standing out from the competition.

Today, electronic banking has significantly reduced the need for classical banking. Accordingly, individuals can perform almost all classical banking transactions with electronic banking services. The extent of transactions that can be performed within the scope of electronic banking is getting broader each passing day. This naturally increases the demand for electronic banking in both individual and corporate aspects thanks to its advantages such as reducing costs, increasing revenues, saving time and space, and improving performance, etc., as stated before.

As mentioned previously, electronic commerce transactions, especially B2B and B2C transactions are the main areas where electronic banking services are used most. To be more precise, electronic finance applications, especially electronic banking, have an important place in ensuring the functionality of electronic commerce transactions. Moreover, the share of non-cash electronic banking services such as using bank cards, credit cards and online payment (money transfer between accounts), etc., instead of cash for payment in classical commerce transactions is increasing each passing day. In this sense, an examination of global electronic commerce data and non-cash payment data will reveal the development of electronic financing applications, especially electronic banking.

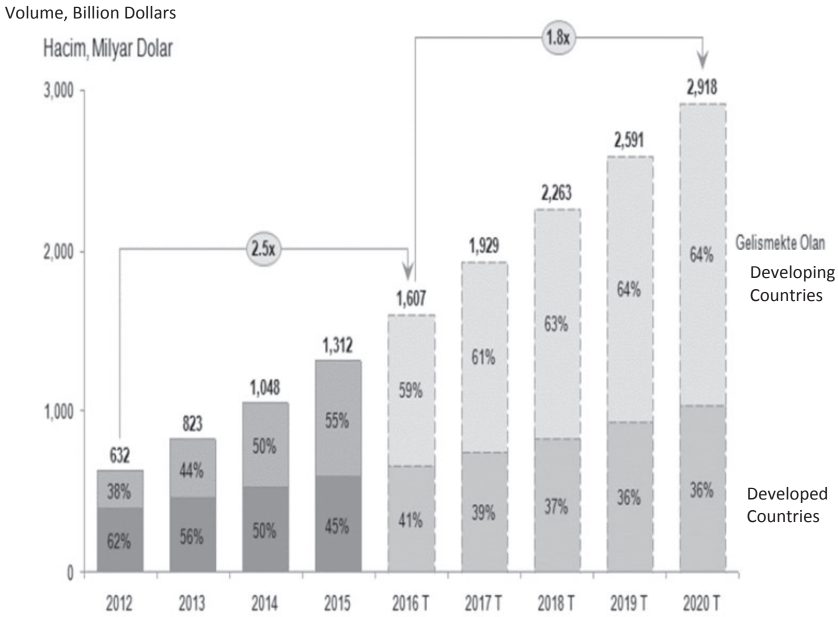

Figure 8-1. Change in the World E-Commerce Volume Across Years
Source: (Kantarcı et al., 2017)

Figure 8-1 shows data related to the change in the world e-commerce volume across the years. The data show that retail e-commerce in the world increased 2.5-fold in 2016 compared to 2012 and reached 1.6 trillion dollars of trading volume and it is predicted that the fast growth rate will continue in the years to come. As a result, it is predicted that the global trading volume will increase by 1.8-fold in 2020 compared to 2016 and get close to the 3 trillion dollar limit.

As for non-cash payment data, according to the 2015 World Payments Report prepared collectively by Capgemini and Royal Bank of Scotland, the global non-cash payment volume increased in all payment types except checks. According to this report, credit card and bank card use increased by 9.6% and 11.5% respectively and 38% of all payment transactions in the European continent only were carried out through bank cards. Furthermore, it is reported that money transfer, which is used as another electronic banking payment instrument, is preferred to a considerable extent for payments and the annual growth rate of payments made with this method in England reached 34% between 2009 and 2013 (www.dunya.com).

Online Brokerage

Carrying out transactions related to the trade of securities with conventional methods requires a process including many phone calls between customers and brokers. This process lasts even longer when it is necessary to verify whether the order has been carried out partially or completely in cases where the customer gives limit price orders. Such reasons complicate the transactions to be carried out by both intermediary institutions and investors in capital markets. Today, online investment platforms have been developed besides electronic finance applications and investors have acquired opportunities to realize their investments in a more rapid and active manner through such investment platforms provided by intermediary institutions in capital markets (Nagel, 2016).

Now many investors can make online investments by making use of online brokerage services. In the most general sense, online investment means investing in capital market tools using the means of electronic communication such as the Internet, phone and automated teller machine, etc. On the other hand, it will be better to define online investment briefly as performing capital market transactions via the Internet, taking into account the current usage of such means of communication (Anbar, 2001).

Computers and passwords are replacing face-to-face and phone conversations in online investment transactions. This means saving manpower and some other costs to a considerable extent. Thanks to online investments, investor transactions such as portfolio monitoring and order confirmation become accessible twenty-four/seven approximately at no cost (Wu et al., 1999). Therefore, the interest in online investment transactions is increasing day by day. This can be understood from international data as well.

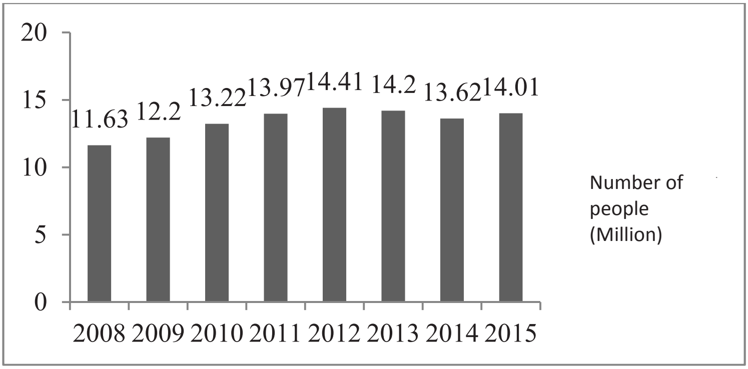

Figure 8-2. Number of Online Share Certificate Investors in the USA
Source: www.statista.com

The data given in Figure 8-2 show that the number of users benefiting only from services related to online share certificate investment in the USA was 14 million in 2015 and this number increased by 3 million from 2008 to 2015. This can be considered a clear indicator of the fact that online accounts opened at intermediary institutions are used actively. Online capital market investment transactions started in Europe later than the USA. Therefore, the trading volumes and online investor numbers of online investments are less in Europe than in the USA. Despite this, the number of individuals actively involved in online share certificate investment in 2013 in Germany only was 2 million. In general, it is very clear that online investment transactions all over the world keep increasing each passing day (www.satista.com).

Online insurance and other usage areas of electronic finance

Although it has a twenty-year history, online insurance is one of the usage areas of electronic finance that have not been in demand much. According to calculations, only 0.2 per cent of premiums paid in 1999 in the US insurance market were created through the Internet. This rate is even lower than 0.1 per cent in Europe and Japan. It can be argued that there is a similar situation today. The fact that insurance agreements cannot be made electronically due to legal restraints makes it controversial to actually consider such transactions within the scope of e-finance. However, a limited number of insurance companies and intermediary institutions offer interfaces of algorithms making premium calculations and binding proposals to online users. Prices of online media instruments affect the competition in retail insurance in this sector just like in other financial sectors (Erdoğdu, 2002).

An overview of the usage areas of electronic finance reveals that electronic finance is mostly limited to B2B transactions other than electronic banking and online brokerage transactions. Electronic finance does not have many widespread applications in other areas of use.

Conclusion

With the rapid evolution of the Internet based on Internet technologies, and for other similar reasons, it has become a necessity for enterprises to keep up with this rapid change. Finance is the main sector that is trying to keep up with this change most rapidly and efficiently. As a result, many electronic finance applications are produced and used by financial institutes today. Electronic finance applications provide enterprises and users with many advantages such as reducing costs, increasing revenues, saving time and space, and improving performance, etc. On the other hand, when we look at the usage areas of electronic finance, areas of use stand out such as electronic banking, electronic commerce and electronic brokerage with a high number of users or, in other words, customers. The reason for this could be the fact that benefits provided by electronic finance applications are able to cover the costs in these areas.

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The Efficient Markets Hypothesis and the Anomalies Observed in The Stock Markets

Fatma Temelli̇

Introduction

One of the most important hypotheses developed in the finance literature is the Effective Markets Hypothesis (EMH) by E. Fama (1965). In this hypothesis, Fama asserts that stock market prices reflect all the information in the market and no investor can extraordinarily gain a return over the market returns (Atakan, 2008: 99). In the studies conducted on the Effective Market Hypothesis, results that contradicted the hypothesis were obtained and these results were considered as anomalies (Karan, 2001: 83). The emergence of the concept of the anomaly in the financial literature started with the exposure of some deviations from the hypothesis by the Financial Asset Pricing Model developed to test the Effective Market Hypothesis (Güngör, 2003: 109).

Market efficiency depends on which pace and direction the prices are realized in the face of new information. As a result of the introduction of new information, if the stock prices can rapidly and accurately adjust to the new information, it can be said that this market is efficient. In such an efficient market, it is not possible for the investors to gain an abnormal return (Karan, 2004: 271). In the stock markets, the price movements that are not compatible with the Efficient Market Hypothesis, in other words contradictory to the hypothesis, may be mentioned. If it is hard to confirm an empirical finding theoretically or some illogical assumptions are needed to explain this finding, it can be considered as an anomaly (Atakan, 2008: 100).

In this study, first of all the term Efficient Markets Hypothesis (EMH) and then the term of the anomaly will be discussed; afterwards the anomalies seen in the stock markets will be examined and each of them will be explained; and in the conclusion a general evaluation on the subject matter will be made.

Efficient markets hypothesis (EMH)

The term “Efficient Market” was first described in an article by E. Fama and he explained the efficient market as a market in which there is a large number of firms that want to maximize their profit and predict future market prices and the important information is open to all participants (Chew, 2001: 22). In the Efficient Markets Hypothesis (EMH), Fama assumed that the consecutive stock price volatilities or consecutive period returns are independent and in addition the consecutive price variances and returns are scattered in the same way (Bildik, 2000: 10).

The EMH is closely related to the Random Walk Hypothesis, which asserts that the successively realized price series are independent of the previous prices. The Random Walk Hypothesis is based on the assumption that the information flow is unimpeded, the information is immediately reflected in the stock prices, and the price changes of tomorrow are affected only from tomorrow’s prices and are independent of today’s price changes. According to this hypothesis, information and/or news cannot be predicted. Therefore, price changes cannot be predicted and random. Prices reflect all the available information. As a result, even non-informed investors are able to gain as many returns as the experts because the portfolio they created involves the market price (Malkiel, 2003: 59). If all information is relayed and evaluated by the users, the actual stock value will be equal to the instantaneous value. Basic and technical approaches are not accepted by the efficient market hypothesis. It is assumed that the prices are formed randomly, which suggests that price determination approaches are unnecessary. Price changes in the markets are independent of each other. The prices are formed according to the information obtained. This will prevent mispricing (Sümer and Aybar, 2016: 76).

In the EMH, the behavior of stock prices and returns is considered as the main indicator in measuring the effectiveness of securities and stock exchanges. In this regard, the markets in which the current stock prices fully reflect the current information are considered effective. Investors behave rationally and the prices fully reflect the news, information, and expectations on the market. Market participants determine a price by examining all the data, so the market prices include available information and expectations (Fama, 1970: 383). In general, a securities market is defined as an efficient market if the prices of securities bought and sold on the market reflect all available information and the prices react rapidly or approximately and without deviation (Deckman and Dale, 1986: 5).

Concept of anomaly

Anomalies, which are denoted as price behaviors contradictory to the EMH, are defined in different ways by different researchers. For example; Thaler (1987) described the anomaly as an observation or reality that is not compatible with the theory. Özmen (1997) considered the anomaly as an empirical finding that cannot be explained in the theoretical framework or needs some unreasonable assumptions as an explanation.

The EMH was entered into the literature by Fama as the thought that the price movements on the market are formed randomly, realize a random distribution, and therefore, cannot be predicted. According to this hypothesis, there is a relationship between the securities prices and information and the securities prices are always formed based on the new information disclosed. Markets are classified according to the information reflected by the prices (Fama, 1970: 383).

The EMH asserts that the stock prices reflect all available information, the investors are rational, the prices are formed randomly, and abnormal returns cannot be gained. However, researches have shown that stock prices can be predicted based on the firm-specific, such as previous returns, seasonality, stock price, firm size, market value/book value ratio, price/earnings ratio, and it may be possible to gain abnormal returns. These situations that contradict the EMH are called anomalies (Kaldırım, 2016).

Some researchers, especially Fama, see anomalies as a result of luck and think that they pose no threats to the EMH. Fama (1998) asserts that most anomalies will disappear with luck in the methodology. Some other researchers, such as Wenner De Bont, Richard Thaler, and Andrei Schleifer, regard anomalies as the result of the investors' lack of ability to behave completely rationally (Rodriguez, 2002: 2). With many studies conducted, it has been found that investors in the stock markets constantly repeat some irrational behaviors, and thus some anomalies constantly occur in the stock markets.

Anomalies seen in the stock markets

Empirical studies conducted within the EMH and their findings that stock prices had different tendencies in certain periods, revealed that there are anomalies which mean a deviation from the normal in the relevant markets (Abdioğlu and Değirmenci, 2013: 56). Based on the literature, it is possible to categorize anomalies seen in the stock markets in general as follows:

1) Periodic Anomalies: Anomalies regarding the days, Anomalies regarding the months, and Anomalies regarding the holidays;
2) Cross-sectional Anomalies: Price/Earnings Ratio Effect, Market Value/Book Value Ratio Effect, Firm Size Effect, Price/Sales Ratio Effect, Momentum Effect, and Growth Rate Effect; and
3) Price Anomalies: Overreaction Anomaly and Under Reaction Anomaly.

Periodic Anomalies

According to the EMH, the stock returns are independent of time. Therefore, all time zones are the same in terms of returns (Özmen, 1997: 12). Periodic anomalies are related to whether stock returns perform better or worse in any given period of time such as any given day, week, month, and year than the other periods of time (Erdoğan and Elmas, 2010: 3). In the literature, the periodic anomalies are categorized as anomalies regarding days, months, and holidays.

Anomalies regarding the days; mean that on the stock market, a constant low or high return is gained on a certain day or few days of the week compared to the other days. The studies conducted show that the anomalies regarding the day emerge in two ways as the day of the week effect and the intraday effect (Abdioğlu and Değirmenci, 2013: 57). The day of the week effect is defined as that in which the stock returns of Monday, the first trading day of the week, are systematically negative. The anomaly regarding the constant negative return of Mondays is called the day of the week effect or the Monday effect in the finance literature (Özmen, 1997: 14). The intraday effect means that, compared to the other times or periods of times, a constant low or high return is gained on a certain time of the day or in a certain period of time (Barak, 2006: 132). There are two main points of view in the studies about the anomalies regarding the days. The first of these points of view is the blue Monday hypothesis which asserts that the optimism levels of investors will decrease from the beginning of the week to the end, thus the highest return will be ensured on Friday, the last trading day of the week. The second point of view is the announcement effect regarding the daily anomalies. According to the announcement effect hypothesis, firms choose the timing of the announcements (profit, dividend, etc.) they plan to make in a such a way that the effect of these announcements on the stock prices is softened. Accordingly, the announcements of bad news about the firm are usually made late on Friday, so that the reaction of investors may cool off over the weekend. For this reason, price falls usually coincide with Monday

(Pettengil and Buster, 1994; cited in Güngör, 2003: 115). In contrast to the EMH, the anomalies regarding the days statistically reveal that the mean returns or distributions of returns of all the days of the week are not the same and there are differences in returns among the days (Barak, 2006: 126).

Anomalies regarding the months; within the anomalies regarding the months it is examined whether the stock returns are different in any given month of the year, whether they have any different features. In other words, the fact that the features of the stock returns are different and gain different returns in any given month over the other months is called the anomalies regarding the months. Within this context, it was examined whether the months, the first days of months, the first and second halves of the months, the end of months, and the end of years have any effect on the stock returns (Barak, 2006: 135). The most prominent anomaly among those regarding the months is the January anomaly. The January anomaly implies that the stocks offer higher returns in January compared to the other months of the year. The assertion that the stocks systematically offer higher returns in January compared to the other months is supported by many studies (Erdoğan and Elmas, 2010: 5). The January anomaly is defined as the situation where the shares offer higher returns in January compared to the other months of the year, which is thought to arise from the fact that investors generally sell their securities to evade tax in December and with the new year in January they buy shares again (Aytekin and Sakarya, 2014: 138). In other words, it asserts that the returns gained in January are higher and statistically significant in proportion to the returns gained in the other months of the year (Eyüboğlu, 2017: 75). One of the anomalies regarding the months is the intra-month anomaly. This is defined as the realization that the stock returns are high in the first half of the month and lower in the second half of the month (Eyüboğlu, 2017: 80). The turn-of-the-month anomaly, another anomaly regarding the months, states that extreme returns can be gained on the last days of one month and on the first days of the next month (Eyüboğlu, 2017: 82). The last of the anomalies regarding the months is the turn-of-the-year effect. Gaining excessive returns from the stocks between the last days of December and the first days of January is called the turn-of-the-year effect (Eyüboğlu, 2017: 86).

Anomalies regarding the holidays state that the stock returns have an extraordinary tendency pre-holidays and post-holidays (Abdioğlu and Değirmenci, 2013: 58). Statistically significant movements in stock returns that occur immediately before the holidays and immediately after the holidays are called the holiday anomaly (Eyüboğlu, 2017: 88). The time of the anomalies regarding the holidays includes the weekend, and the pre-holiday and post-holiday periods of religious and official holidays (Barak, 2006: 146). In the anomalies regarding the holidays, it is stated that on religious holidays, official holidays, and weekends the stock returns are different pre-holidays and post-holidays (Ergün, 2009: 29).

Cross-sectional anomalies

Anomalies that occur as contradictory behaviors to the market average in a specific time period and that are observed in the stock returns of firms that have a market value or financial ratios above or below the sector average are called cross-sectional anomalies. Examples of this type of anomaly are as follows; the Price/Earnings Ratio Effect, Market Value/Book Value Ratio Effect, Firm Size Effect, Price/Sales Ratio Effect, Momentum Effect, and Growth Rate Effect (Eyüboğlu, 2017: 28).

Price/Earnings (P/E) Ratio Effect; the P/E ratio of a stock is calculated by dividing the stock price by its earning per share. The P/E ratio effect is related to the stocks with a low P/E ratio offering higher returns than the stocks with a high P/E ratio (Erdoğan and Elmas, 2010: 5-6).

Market Value/Book Value (M/B) Ratio Effect; the M/B ratio is calculated by dividing the share price of the company by its equity amount per share. The M/B ratio effect means that the stocks with a low M/B ratio offer higher returns than the stocks with a high M/B ratio (Erdoğan and Elmas, 2010: 6).

Firm Size Effect; in the finance literature the term firm size means the market value. According to the firm size effect, the stocks of the firms with a low market value offer higher returns for their investors than the stocks of the firms with a high market value (Eyüboğlu, 2017: 45).

Price/Sales (P/S) Ratio Effect; the P/S ratio is calculated by dividing the price per share of the firm by the sales per share within the last 12 months. In the evaluation, the P/S ratio has some advantages over the P/E ratio. The first of these advantages is that the sales are more predictable than the earnings and thus a more accurate result can be obtained. The second advantage is that when the firm makes a loss, the P/S ratio maintains its meaningfulness whereas it is hard to interpret the P/E ratio (Eyüboğlu, 2017: 36).

Momentum Effect; the momentum anomaly, which has become one of the most frequently examined anomalies in recent years, indicates that the portfolios with high returns in the past offer excessive returns in the 3-12 months that followed (Eyüboğlu, 2017: 51).

Growth Rate Effect; the growth rate anomaly, which has attracted attention in recent years, indicates that the stocks of a firm whose assets decline (increase) gain higher (lower) returns than the stocks of a firm whose assets decline (decline) (Eyüboğlu, 2017: 55).

Price Anomalies

The anomalies that are contradictory to the EMH and thought to arise from the overreaction and underreaction on the market are called price anomalies. Investors may irrationally overreact or underreact to the stock market news and as a consequence, the stock prices move far above or below what they really should be (Kaldırım, 2016: 115). In the literature, price anomalies are categorized as the overreaction anomaly and the underreaction anomaly.

Overreaction Anomaly; like the other anomalies, the overreaction anomaly indicates the situation that contradicts the EMH. Overreaction and contrarian strategies are one of the most controversial topics in the financial world (Clements and Drew, 2009: 76). The overreaction anomaly means that the contrast of the price movements of the past 3-5 years is observed in the medium and long term such as 3-5 years. The excessive reaction of the investors to the information about the stocks is put forward as the reason for the overreaction anomaly. On the markets in which the overreaction anomaly is effective, it is possible to gain abnormal returns with the contrarian strategies (Kaldırım, 2016: 116).

Underreaction Anomaly; Chopra et al. (1992) have explained underreaction as the late reaction displayed by investors to new information. The late reaction of investors to new information causes the stocks which made earnings (loss) in the past to continue to make earnings (loss) in the future. Therefore, the portfolio strategy in which the stocks which make earnings are bought and the stocks which make losses are sold will yield high returns in the short term (Durukan, 2004: 137). The findings of underreaction reveal that investors show insufficient interest in some information or news about the stock prices in a period of 1-12 months. In this situation, the news slowly affects the prices and creates a positive relation (Barberis et al., 2005; cited in Erdoğan and Elmas, 2010: 10).

Conclusion

One of the most debated and researched subject matters in the field of finance is the Efficient Markets Hypothesis (EMH). According to the

EMH, the stock prices fully reflect the current information and expectations, thus it is not possible for investors to gain an abnormal return. However, in many studies in the literature, contradictory price behaviors called anomalies make it possible for investors to gain abnormal returns from the stocks at certain times.

In terms of behavioral finance, investors in stock markets cannot behave completely rationally, and thus some anomalies emerge in the markets. In many studies conducted, it has been found that investors have constantly repeated some irrational behaviors in stock markets, and thus some anomalies are constantly observed in stock markets.

In the literature, the anomalies seen in stock markets are generally categorized as periodic anomalies, cross-sectional anomalies, and price anomalies. In the literature, periodic anomalies are generally categorized as anomalies regarding the days, anomalies regarding the months, and anomalies regarding the holidays. Cross-sectional anomalies are categorized as the price/earnings ratio effect, market value/book value ratio effect, firm size effect, price/sales ratio effect, momentum effect, and growth rate effect. As for the price anomalies, they are categorized as the overreaction anomaly and the underreaction anomaly.

In conclusion, when the studies conducted until now are examined, the anomalies put forward against the EMH do not include a one hundred percent certainty and no market can have all the features of an effective market. The anomalies seen in the stock markets show that investors do not always behave rationally and that they are influenced by various psychological factors while taking decisions. These psychological factors play an important role in the stock markets and investment decisions. The evaluation of this role in terms of behavioral finance and taking some measures will contribute not only to the investment decisions of the individuals but also to the stock markets and the market power in general.

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Integrated Reporting: A Conceptual and Theoretical Analysis

Fatma Temelli̇

Introduction

Financial statements are tools which provide the periodical transmission of information recorded and collected in the accounting system for those who will use the information (Akdoğan and Tenker, 2010: 4). The information created in the accounting information system is periodically transmitted to the various information users through the financial reports to meet common information needs. The purpose of financial reporting is expressed as "providing the financial information useful to make the resourcing decisions for the current and potential investors, lenders, and other parties of creditors" (Karğın et al., 2015: 506).

While the investors make investment decisions, they want to examine the nonfinancial data together with the financial data to assess the sustainability of the business. In recent years, it has been desirable to envisage the future of the business and thus to test the sustainability of the business by considering not only the profitability ratio reported but also the social responsibility and environmental factors. With the developments around the world, the cutting-edge in sustainability reporting is integrated reporting. The reporting of the continuity of a business is provided through the financial data and non-financial data affecting the profit potential, environmental reports, sustainability reports, corporate social responsibility reports, and the integrated reporting that covers all of these (Gücenme Gençoğlu and Aytaç, 2016: 52).

Integrated reporting reflects the relationship between the financial performance, strategies, and managerial activities of the business and its environmental, social, and economic structure. In other words, the integrated report is one in which the financial reports and sustainability reports regarding the operations of the business are presented in an integrated manner. The information provided by integrated reporting helps the businesses make sustainable decisions. At the same time, integrated reporting is an important source of information in the decision-making process of the financial statement users (Karğın et al., 2013: 27).

The purpose of this study is first of all, to discuss the definition, purpose and scope of integrated reporting; to examine the benefits and challenges of integrated reporting, the institutions involved in integrated reporting, the countries in which integrated reporting is prepared, and finally to make an overall assessment by discussing the relation between and the comparison of integrated reporting with other reports.

Definition, purpose and scope of integrated reporting

According to the International Integrated Reporting Council (IIRC), *"an integrated report is a concise communication about how an organization's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value in the short, medium and long term"* (IIRC, 2013: 7).

Eccles and Krzus (2010) preferred to use the term "One Report" rather than the term "integrated report." *"One Report is a single report that combines the financial and narrative information found in a company's annual report with the nonfinancial and narrative information found in a company's 'Corporate Social Responsibility' or 'Sustainability' report"* (Eccles and Krzus, 2010: 10).

In the Sustainability Bulletin prepared by Borsa İstanbul (Stock Exchange İstanbul), integrated reporting is *"a reporting method that requires an integrated thinking structure based on the society, aims to consolidate the existing financial and nonfinancial reporting practices, and also defines the future strategies of the organization in the reports"* (Borsa İstanbul, 2014: 38).

The integrated report, a new concept in the literature, emerges with different names such as the one report, the integrated report, and the embedded report. In the literature, there are studies that see integrated reporting as the sum of the financial and sustainability reports (Karğın et al., 2013: 40). However, integrated reporting has a much broader scope than the composition of these (Topçu and Korkmaz, 2015: 4). Studies asserting that it is wrong to consider integrated reporting as a sum or composition of the financial report and sustainability report explain this assertion with the following three concepts that constitute the basis of the integrated report (Yılmaz, 2016: 6).

1. *Creating Value for the Organization and the Others:* The operations of a business, its relationship with the stakeholders and the environment affect its ability to create value and sustainability.
2. *Capital Elements:* Capital items are sources that the business uses for providing sustainability and value creation. The capital elements in integrated reporting are as follows under six titles: financial, manufactured, intellectual, human, natural, social and relational capital.
3. *Value Creation Process:* This involves the interaction of the business with the inner environment, outer environment, business model, and various capital elements to create value.

Integrated reporting, which goes beyond combining the financial and sustainability reports, aims to reveal the effect of the information presented on the business's value creation capacity through linking these pieces of information. Thus, the integrated report aims to help all the stakeholders of the institution, especially the investors, to make better decisions by providing a holistic view of the institution (Aras and Sarıoğlu, 2015: 16).

All in all, there are mainly two important reasons for the businesses to prepare integrated reports. The first of these is the desire to show that the business takes its sustainability components seriously, and the second is the desire to inform all stakeholders with a single report (Küçükgergerli, 2017: 37).

Integrated reporting should describe the business and the environment in which the business operates. In this respect, the following should be included in the reports: corporate culture and ethics, the ownership structure and organizational chart, the target markets, the products and operations, the competitive situation and the situation in the market. Statistical data on labor force and earnings; aspects affecting the external environment including geographical distribution and the legal, commercial, social, environmental, and political factors should be analyzed (Topcu and Korkmaz, 2015: 16).

In line with the International Integrated Reporting Framework published by the IIRC, an integrated report is expected to be prepared based on the guiding principles and the content elements given in Table 10-1.

Table 10-1. The Guiding Principles and the Content Elements of the Integrated Report

Guiding Principles	Content Elements
Strategic focus and future orientation	Organizational overview and external environment
Connectivity of information	Governance
Stakeholder relationships	Business model
Materiality	Risks and opportunities
Conciseness	Strategy and resource allocation
Reliability and completeness	Performance
Consistency and comparability	Outlook
	Basis of preparation and presentation
	General reporting guidance

Source: IIRC, 2013: 3

As a result of the existing reporting methods being inadequate to meet the expectations of the investors and shareholders, integrated reporting emerged as a form of reporting explaining how the companies create value today and in the long term. Some companies such as Novozymes, Novo Nordisk, Natura, and Philips launched integrated reporting in the early 2000s, but it was not until the end of the 2000s that integrated reporting intensively came onto the agenda of the business world and the development of the literature was realized in this field (Aras and Sarıoğlu, 2015: 37)

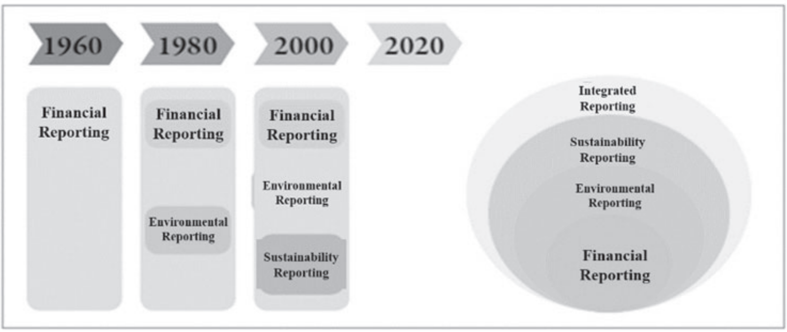

Figure 10-1. Development of Corporate Reporting
Source: Aras and Sarıoğlu, 2015: 38

From 2008, the following are regarded as the first companies which conducted integrated reporting: American corporations such as the United Technologies Corporation, Electric Power, and Southwest Airlines; the French insurance company AXA; the German chemical company BASF; the Swedish drug company Novartis; and the Dutch Van Gansewinkel Group. In 2010 according to the Global Reporting Initiative (GRI), 160 companies prepared integrated reports (Eccles and Armbrester, 2011: 13-14).

Benefits of integrated reporting

Integrated reporting provides a number of advantages such as a better understanding of the business's effect on the environment and society, establishing a relationship between financial and nonfinancial performance, and the corporate reputation. Integrated reporting will enable the stakeholders to accurately assess the economic, environmental, and social performance of the business, and enable the businesses to more easily measure the value created in the long term. If integrated reporting can be successfully actualized globally, it will benefit both businesses and society and realize a stable prosperity for a healthy world (Aydın, 2015: 67).

It is possible to evaluate the benefits of integrated reporting from the perspectives of the companies, investors and other stakeholders. Accordingly, integrated reporting (ERTA, 2017; cited in Önder, 2018: 59-60):

From the Company's Perspective;

- Provides an understanding of a company's entire capital and their relationships with each other in determining corporate strategies;
- Improves decision-making mechanisms;
- Offers a more long-term perspective for the company;
- Enables the company to make a better risk analysis;
- Adds to the brand value;
- Adds to the motivation and attachment of the employees;
- Facilitates the company's access to financing when the need arises and thus enables the company to gain a competitive edge.

From the Investors' Perspective;

- Offers reliable, holistic, standard and comparable data about the companies;
- Ensures that the quality of the data used in reporting is enhanced and such data are interconnected;

- Ensures that the resources are diverted to the companies that can better manage the risks and opportunities;
- Prevents the investors from facing surprises and ensures that the risk level for the investment is accurately determined.

From the Other Stakeholders' Perspective;

- Strengthens communication with the stakeholders;
- Allows the forming of closer relations with the suppliers and improves their cooperation;
- Allows the company to understand the sort of value it created throughout the supply chain;
- Ensures that the people can easily distinguish the poorly performing and deceptive businesses.

Challenges of integrated reporting – criticism

Besides the mentioned benefits of integrated reporting, there are also some challenges and criticisms about this reporting.

There are two main components of integrated reporting, namely, finance and sustainability. In the preparation of financial reports and sustainability reports, every country in the world behaves according to its own legislation and regulations. The duties, powers, and responsibilities of the directors also differ in the current laws and regulations. Due to the differences in the current laws and regulations, and the different definitions of the duties and responsibilities of the directors, it is thought that multinational corporations or global enterprises operating in more than one country in the globalizing world will have difficulty in preparing integrated reports. From the companies' perspective, another difficulty of integrated reporting is the likelihood that the information will be used by the competitors of the company (Yüksel, 2017: 48-49). One of the criticisms of integrated reporting is that the individual investors may not have the ability to analyze financial and nonfinancial information. Integrated reporting presents the financial and nonfinancial information, which will be the basis for the investment decisions, based on integrated thinking with a holistic approach. But, the individual investors may not have the ability to analyze these data. On the other hand, while there are financial analysis methods and techniques in analyzing financial information, the basic performance indicators to be predicated in analyzing the nonfinancial data may not be identified by the investor. Even if the basic performance indicators can be identified, evaluating the financial and nonfinancial factors together requires analysis tools (Yüksel, 2017: 49). One of the challenges of integrated reporting is the probability that the interests of the stakeholders and shareholders may not be harmonized. Another challenge for integrated reporting is the employees' attitude toward this process. It can be difficult to ensure that all the employees work collaboratively in the integrated reporting process. Another challenge is integrated reporting training. In the process of preparing integrated reports, accounting and auditing professionals will need to increase their knowledge of and skills for the financial and nonfinancial issues. The training and publications on integrated reporting and acquiring the skills for preparing and interpreting the integrated report, are very limited today. (Yüksel, 2017: 50).

In the light of this information, it is possible to list the challenges of integrated reporting as follows (Yüksel, 2017: 51):

- The differences in legislation between countries;
- The lack of regulations on integrated reporting in many countries worldwide, except in a few countries;
- The likelihood that successful businesses trading on efficient markets may regard integrated reporting as unnecessary;
- The increase in the duties and responsibilities of the directors because of integrated reporting;
- Reluctance of the employees to participate in the integrated reporting process;
- Inadequacy of persons or institutions with vocational training and competence in the preparation, presentation, and supervision of the integrated report;
- Failure to respond to the short-term expectations of the shareholders;
- Failure to harmonize the stakeholders' interests with the shareholders' interests;
- Inability of the stakeholders to analyze the integrated report prepared on the basis of integrated thinking.

Institutions related with integrated reporting

August 2010 is considered as a turning point in corporate reporting. The International Integrated Reporting Council decided to create a reporting framework for sustainability accounting (Eccles and Armbrester, 2011: 13). This framework was developed with the purpose of creating sustainable value and setting the ground rules for the future (IIRC, 2013: 2).

When the historical development is examined, it is seen that six institutions and organizations played a significant role in the development of integrated reporting and the integrated report. These are the Institute of Directors in Southern Africa (IoDSA), the Prince's Accounting for Sustainability Project (A4S), the Global Reporting Initiative (GRI), the International Federation of Accountants (IFAC), the Integrated Reporting Committee (IRC) of South Africa, and the International Integrated Reporting Council (IIRC) (Yüksel, 2017: 51).

The IIRC sets the application framework of integrated reporting and facilitates and guides the implementation of integrated reporting in a global context. The IIRC succeeded in bringing together many stakeholders such as businesses, investors, intermediary institutions, insurance agencies, supervisory and regulatory agencies, and academic and non-governmental organizations (Deloitte, 2013).

The countries in which integrated reporting is prepared

Since the IIRC was established in 2010, integrated reporting has been a topic studied around the world both in the literature and in practice. After its inception, the IIRC went into action to prepare the International Integrated Reporting Framework and established the IR Business Network to promote the adoption of integrated reporting, to guide the businesses in integrated reporting, and make the businesses share their experiences.

South Africa, the UK, and Germany are in the lead position for integrated reporting probably due to national regulation amendments. In the report named the "FRC's Guide on the Strategic Report," the UK Financial Reporting Council (FRC) stated in June 2014 that integrated reporting and strategic reporting were consistent with each other (Yüksel, 2017: 131).

In Brazil, the BM & FBOVESPA Stock Exchange publishes its own integrated report and supports the companies trading on the stock exchange in developing their reports on environmental, social, and governance issues (Institute RSE Management, 2012: 4). Besides, it is obligatory to publish a sustainability report or an integrated report for the companies trading on the stock exchange in France and Denmark and for the state-owned enterprises in Sweden. In May 2014 with the Financial Reporting Act, New Zealand stated that standards for the integrated reporting of business should be set. And in November 2014 in Johannesburg, New York, Madrid, Singapore, Kuala Lumpur, London, Brussels, Paris, Copenhagen, Helsinki, Melbourne, Sydney, Brazil, and San Francisco, round table meetings were held on the theme of security in integrated reporting (Yuksel, 2017: 131-132).

As seen, many countries and institutions around the world are supporting and promoting the adoption of integrated reporting. It has been increasingly supported around the world after the establishment of the IIRC. Many countries such as Malaysia, Brazil, New Zealand, Great Britain, Japan, India, Singapore, and Australia; and many international organizations such as the International Monetary Fund (IMF) and the United Nations (UN) announced their support for integrated reporting and made regulations within their jurisdiction (Yuksel, 2017: 132).

The relation of integrated reporting with other reports

Financial Reporting

Financial reporting is the process in which information about the financial condition and financial performance is recorded, reported, and presented to the people concerned. In the integrated report, the data in the financial report are associated with the nonfinancial data and conveyed. The financial analysis and future forecasts are included. In addition, all of the information in the financial reports is also included in the integrated report (Karğın, et al., 2013: 34).

Sustainability Reporting

Sustainability reporting, also known as corporate social responsibility reporting, is the reporting of financial and nonfinancial information regarding its interaction with the physical and social environment about a business in its annual reports or in a separate report (Hackston and Milne, 1996; cited in Aydın, 2015: 64). Sustainability reports as a natural extension of financial reporting expand the scope of corporate reporting in describing the environmental, economic, and social performance of the business (Clikeman, 2004; cited in Aydın, 2015: 64).

Corporate governance principles compliance report

One of the basic principles that constitutes the content of the integrated report is corporate governance. According to the definition of the Organization for Economic Cooperation and Development (OECD), corporate governance involves a set of relationships between a company's management, board of directors, shareholders, and stakeholders, and helps the business reach its goals (Davies, 2006: 3). The Corporate Governance Principles Compliance Report is prepared by the Capital Markets Board (CMB) based on the principles of fairness, transparency, accountability, and responsibility, and should be included in the annual reports of all companies as a separate section (Yılmaz, 2016: 22).

The comparison of integrated reporting with other reporting practices

Many large-scale companies operating on an international scale and partaking in the capital markets of the country occupy an important position in global investment and resource distribution. Both the shareholders and the other stakeholders are dependent on the information provided by these companies to allocate funds and determine which sectors they will invest in. Traditional reporting models cannot fully provide this information and need to adapt to the new requirements of today's business world. Integrated reporting has been developed as a solution to this lack of conformity (Yıldırım and Kocamış, 2018: 74).

Table 10-2 below summarizes the differences between the integrated reporting of the IIRC and the existing reporting practices in eight aspects.

Table 10-2. Fundamental Differences Between Current Reporting and Integrated Reporting

Feature	Current Reporting	Integrated Reporting
Way of Thinking	Isolated	Integrated
Governance	Past, Financial	Current and Future; Connected; Strategic
Reliability	Limited Disclosure	Transparent
Focus	Past, Financial	Current and Future; Connected; Strategic
Time Period	Short Term	Short, Medium and Long Term
Adoptability	Rule-based	To Address to The Individual Conditions
Summary	Long and Complicated	Summary and Important
Technology Activation	Paper-based	Technology Based

Source: Yıldırım and Kocamış, 2018: 76

Table 10-3 below gives a summary comparison table to show the difference between the different corporate reporting practices.

Table 10-3. Comparison of Different Corporate Reports

Feature	Annual Reports	Corporate Governance Reports	Corporate Social Responsibility Reports	Integrated Report
Fundamental target	Specific Shareholders (shareholders and investors)	Specific Shareholders (shareholders and investors)	A limited number of Shareholders (social and environmental perspective)	Especially the financial capital providers but also other stakeholders
Mandatory versus voluntary	Mandatory	Mandatory	Voluntary (with a few exceptions)	Voluntary (with a few exceptions: South Africa)
Regulation or guidelines	National and international laws and accounting standards (IFRS)	National and international laws	GRI or other national and international guidelines (A4S, OECD)	All potential content elements related with the six capital elements
Content	Performance and overview of the company	Organization's overview and governance	All potential content elements related to the social and environmental perspective	All potential content elements related to the six capital elements
Comparability	High	Medium	Medium	Low
Time orientation	Past and present (little information on the future)	Past and present	Past, present, and future	Past, present, and future
Assurance level	High	Medium	Medium	Low

Source: Katsikas et al., 2017: 77

Conclusion

Integrated reporting is being discussed by many countries, governments, institutions and academicians around the world. Established in 2010, the IIRC published the International Integrated Reporting Framework in 2013 as a result of its studies. Today, integrated reporting explains not only the financial performance of the business but also what sort of value the business creates for all stakeholders as well as the society and environment.

Integrated reporting is essential for robustly providing communication between stakeholders, it can convey the value created by the business in a concise and understandable way, and today it is used by many businesses in many countries.

The main purpose of integrated reporting is to provide financial capital providers with the information they need. The integrated report contains financial and nonfinancial (sustainability) reports related to the activities of the business in a single report. Integrated reporting has financial and nonfinancial aspects (sustainability). The development of corporate reporting started with financial reporting and continued with various detailed reports.

Sustainability reporting in 2000 and integrated reporting in 2010 joined corporate reporting. Although there are some critics of integrated reporting, the basis of this reporting is transparency and accountability. Since it completely meets the information needs of the shareholders and other stakeholders, it will benefit businesses and the reliability of financial markets will increase. There is no generally accepted format for integrated reporting. A template for this report can be created by agreeing on the format of the integrated report. Thus, it can be possible to compare information by eliminating the differences between the businesses preparing the integrated report. Accounting education is also very important in terms of the understanding, effective implementation, and preparation of the integrated reporting process.

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Supervisory Dimension of Production Costs

Büşra Tosunoğlu

Introduction

Increasing communication opportunities and goods and services having similar characteristics along with technological developments made cost control in establishments mandatory and the transfer of cost information to the external users regarding the goods and services produced by the establishments sturdily gained importance. In this context, the first data with regard to cost control were held at a farm in the 17th century, and then they started to be held in various computer programs along with technological alteration and development. Along with these developments experienced in production cost supervision, the analysis of the cost elements of produced goods and services and the procurement of reliable information became more of an issue. The increase in activities in production enterprises, the raw materials used and supplies led to the increase of labor and other costs. Monitoring these costs that arise in parallel with this aforementioned increase leads to efficient cost control becoming harder. The cost and supervision relationship is the leading major problem that industrial enterprises experience. An error occurring at the determination of production costs may affect many decisions from the price of the good to the budget. An error occurring in the costs by the enterprises will cause errors and deviations in the prices generated for the product (Basu, 2010) and this situation will affect the decisions of the enterprises negatively. Minimizing the aforementioned risk is only possible with the existence of an efficient control system. Cost control is defined as the supervision of accuracy in cost calculations, conformity of cost accounting, the efficient use of costing techniques and the efficient use of the system (Khan and Jain, 2008). Necessary information regarding production methods, the raw materials and supplies used in production, the labor costs and production overheads, and the legal rights and obligations enabled by the state shall be gathered (Lal and Srivastava, 2009). As may be seen, the errors and fraudulent cases occurring regarding production costs affect the decisions of the decision-makers negatively. Based on this situation the objective of the study is to examine the supervisory dimension of the production costs of enterprises. In order to enable integrity in the study, primarily each production cost will be explained and the supervisory dimension of these costs will be discussed.

Supervision of production costs

The first records regarding cost accounting were kept at Robert Lodes' farm at the beginning of the 17th century; the concentration of mechanization in production activities and large-scale productions with the industrial revolution increased the need for a company's cost information (Institute of Cost and Works Accountants of India). Moreover, together with World War I, the importance of cost accounting increased. Along with the determination of costs of materials used during the war, cost accounting started to be used as a management tool (Uragun, 1993).

The sacrifices enterprises endure in order to continue their activities define production and the nominal value of these sacrifices defines production costs (Savcı, 2012). Determining the production costs accurately is quite important for enterprises with regard to the determination of their activities, operating capacities, optimal production amounts and decisions to be made. Moreover, the accurate determination of the production costs enables the determination of a cost, which is not related to the aforementioned costs and distinguishes that cost.

Production costs are composed of raw material and material costs, labor costs and production overheads (Büyükmirza, 2016). The studies that auditors conduct regarding production costs comprise the examination of existing organization charts, the plant layout and production plans from the purchase of raw materials and materials to the process of packaging in production. Moreover, the documents prepared by departments are controlled by the auditor (Institute of Cost and Works Accountants of India).

Raw material and supply costs and supervision process

One of the costs that is defined as the monetary value of the sacrifices that an enterprise bears while producing a product is the cost of raw materials and materials. The monetary equivalent of raw materials and materials, which consist of all raw materials, auxiliary materials and fuel materials, constitutes the raw material and material costs (Haftacı, 2009; Savcı, 2012). The cost of the finished stocks of production enterprises comprises the purchase price and conversion costs (Bahadır, 2012); the cost of raw materials and materials is considered as an important element of productive activities. Therefore, an audit of raw materials and materials shall be made efficiently and for this it shall be enabled that production, stock, storage, purchasing and quality control mechanisms work compatibly with each other (Institute of Cost and Works Accountants of India). A negative situation occurring in purchasing, production and sales activities, also leads to a malfunction in other activities of the enterprise. For this reason, the audit process of raw materials and materials shall be carried out in a healthy manner (Dursun, 2007). The quality, properties and requirements of the raw materials and materials that are purchased during the purchasing process of raw materials and materials shall be in parallel, the amount of the purchase shall not be more than necessary and the occurrence of losses within the entire purchase, storage, consignment to production and production stages.

Generally, in controlling raw materials and materials it is important that commodities and materials of appropriate quality and features shall be purchased when necessary, the equilibrium of quality, price and delivery shall be provided in accordance with the purchasers' preferences, the procurement and audit of the materials, the cost price to be borne for the procurement of direct raw materials and materials that will be used in productive activities, material control and the necessary amount of stock at every stage of productive activities shall be well-established, proper storage opportunities shall be provided and stock levels shall be controlled regularly (Savcı, 2012). Raw materials and materials are consigned to production at the next phase following the purchase. Goods whose production is finished are sent to storage and are monitored in the records until the selling phase. When audit activities regarding this process are considered; it is quite important for costs, with regard to the orders of the aforementioned goods, to be evaluated accurately and for the determination of whether goods, which are taken out of storage to be sold and are sent to the loading section, are recorded or not (Cheryl and Okcabol, 2005).

The audit of stocks, which comprise the raw materials and materials purchased for use in the operating cycle and goods generated in consequence of using these raw materials, includes the management of materials which are in motion and that are conserved immovably (Heck, 2009). When the asset structure of the enterprise is examined, the high number of stocks, which are expressed as one of the significant items, may lead to difficulties at the point of audit of this item (Bozkurt, 2014). Therefore, an enterprise shall determine its stock level in the optimum manner (Hartl, 1990). Moreover, the purchasing department shall organize a stock card for each and every purchase with regard to providing control of stock intakes. Because the determination of whether stocks, present on accounting records, actually exist is both difficult and also time consuming. An auditor shall take aspects such as the seller, amount, unit price and date of invoice into consideration while examining the invoices of the goods in audit activities concerning the purchase transactions of the raw materials and materials (Rezaee, 2005). Furthermore, the determination of whether the entries to the stock accounts are made accurately or not, whether an evaluation with regard to cost prices was made or not and whether the stocks that were used up or sold within the course of the period are transmitted to the related accounts or not, is significant for the auditor (Öğredik, 2006). The amount of stock being less or more than it should be causes activity amounts to be more or less than the real amount (Öztürk, 2006).

Audit procedures that are applied in consequence of the detailed explanation with regard to audit activities of raw materials and materials are presented in Table 11-1.

Table 11-1. Audit Activities to be Applied to Raw Materials and Supplies

Audit Data	- Capacity report and number of personnel of the enterprise - Pecuniary fixed assets document of the enterprise - Work notes of the enterprise - VAT and corporation income tax returns for the related period
Audit Fields	- Whether the quantity and price information, VAT and purchaser company records on purchase invoices are the same as the information on the accounting records or not
Results of Audit	- Determination that some of the purchase invoices are lost and the contents of some invoices are not known - Although some purchase invoices were cancelled; determination that these cancellations were not on the books - Determination that information on purchase invoices such as a disclosed expense, and features of goods are different

Source: Şen, S. (2007) Hatalı ve Hileli İşlemlerin Tespiti İçin Denetim Teknikleri

Labor costs and supervision process

Labor costs, which are defined as an important component of productive activities, play a fundamental role in the process where materials are transformed into goods (Kaygusuz, 2009). Labor costs approximately constitute 20% of operating costs in the retail sector and constitute 30% in the other sectors.

When an evaluation is made with regard to an audit of labor costs, it is possible to mention the audit of wages, the audit of payroll transactions, the audit of state withholdings and the audit of severance allowances (Güredin, 2007; Ataman et al., 2001). In an audit of the wage system, the auditor shall be in communication with the departments conducting the activities like human resources, payroll and work flow. Attention shall be paid to the determination of wage payments systems. Attention shall be paid to the determination of premises' wage payments systems so they shall be easily calculated, understandable and fair, embraced by personnel and have a mechanism that is self-checking.

In accordance with the 238th Article of Tax Procedure Law, employers are obliged to make up a payroll for the wages they pay every month (Vergi Usul Kanunu). An employee's personal information, unit wage, working hours or period of time with reference to the wage and amount of tax shall be present on this payroll. The payment shall be made by deducting amounts such as advance payments, subscription fees, etc., from the total wage and it shall be audited for any payments made for off hours or not and whether there is any error or fraud in wage payments or not. The audit of state wage deductions is as important as the audit of the wages paid to the workers. The auditor shall carry out the comparison of wages paid to the workers in return for their working hours, an examination of the deductions applied to gross wages and control of the wage fund calculations in a healthy manner. In the case where the worker is dismissed from the employment of the establishment, a severance allowance amounting to a sum of monthly payments for each year, shall be paid to the worker. While the auditor is carrying out audit activities regarding the severance allowance, he/she shall examine whether the calculation of working years, which forms the basis for the severance allowance, is done accurately or not, and for a worker who has worked less than one year and quit, whether the severance allowance reserved for that worker is cancelled or not and whether the reflection of this cancellation on financial statements is delayed or not (Ataman et al., 2001). The aspects that shall be regarded during the audit of overtime work, which is specified as a normal application by pursuing the goal of getting more wages, are; overtime shall not be performed without permission, in the case that overtime work is mandatory workers shall act in accordance with a certain plan and program, normal and overtime work hours shall be recorded daily and reported monthly.

Audit procedures that shall be applied in consequence of detailed explanations with regard to labor cost audit activities are presented in Table 11-2.

Table 11-2. Audit Activities Regarding Labor Costs to be Applied

Audit Data	- Capacity report and number of personnel of the enterprise - Work notes of the enterprise - Printout of R&D expense accounts and provisional tax returns
Audit Fields	- Number of recruited personnel, discharged personnel and personnel who have resigned - Determination of whether there is a double shift system in the company or not - Determination of the type of service regarding providing meal services to the personnel - Determination of the level at which wages are paid to the employees -Determination of information with regard to titles and seniorities of the employees
Results of Audit	- Determination of the number of personnel who resigned from their job within the period - Determination that the amount paid to personnel is different from the amount on the accounting records - Determination that it acted against the rules stating that the advance payments made to the personnel shall be closed off within a one month period at the most

Source: Şen, S. (2007) Hatalı ve Hileli İşlemlerin Tespiti İçin Denetim Teknikleri

Production overheads and supervision process

The audit process of production overheads, which are defined as all the costs and expenses other than raw material, material and labor costs, is as significant as the audit of other types of costs. Production overheads differentiate from other cost items due to their particular characteristics. These characteristics are caused by the fact that certain methods are being used in the distribution of production overheads to produce goods and that these costs bear the qualification of indirect cost (Yükçü, 2015). Production overheads embody costs such as the factory building, machinery amortization, maintenance and repair costs, electricity, water and natural gas, etc. These are classified as costs regarding production sites, management, sales, distribution and research and development. The aspects that attention shall be paid to during the audit process of production overheads are the determination of the allocation keys used in the charging of production overheads to produced goods and the determination of whether the costs charged to the goods are calculated accurately or not.

Audit procedures that shall be applied in consequence of detailed explanations with regard to production overhead audit activities are presented in Table 11-3.

Table 11-3. Audit Activities to be Applied on Production Overheads

Audit Data	- Documents with regard to material fixed assets - Information with regard to ongoing investments - Documents with regard to the production structure of the establishment - Costs other than the raw material, material and labor costs that the establishment endured during production activities - List of credits used in the production activities - Information regarding the taxation of the establishment's profit for the period
Audit Fields	- Productive activities - Activities carried out in the maintenance and repair department - Activities carried out in the cafeteria - Cost areas with regard to energy, heating and communication
Results of Audit	- Determination of production overheads accurately - Determination of whether the information regarding productive activities are recorded accurately in the accounting records - Determination of whether the methods are used in the distribution of production overheads to each good - Evaluation of the compatibility of the chosen distribution method to the establishment

Source: Şen, S. (2007) Hatalı ve Hileli İşlemlerin Tespiti İçin Denetim Teknikleri

Conclusion

In today's business world, it becomes quite difficult for establishments to survive and continue their activities and this situation necessitates them to be more meticulous in their activities. It is only possible for the results of the establishments' activities to comprise accurate, impartial and solid information with the existence of an efficient audit system. And the quality of the audit system is closely related with the conformability of the evidence that the auditor collects during the inspection works.

Therefore, the audit of the sacrifices that productive enterprises endure shall be carried out in a healthy manner. However, good cost accounting knowledge is also necessary since accounting records will be utilized during the cost audit. Moreover, in the cost audit attention shall be paid to the determination of deviations occurring between budgets and ratios, carrying out the process improvement works, and the determination of wastes generated during productive activities. The auditors who carry out the cost audit, shall have sufficient qualitative and quantitative knowledge regarding the audit works and shall perform their activities accordingly. The auditor is supposed to transmit information regarding the sector in which the establishment operates, the determination of erroneous or fraudulent situations with regard to activities, and information regarding the costing system that the establishment uses in a healthy manner. In addition, information regarding the rate of capacity utilization regarding production activities, and information regarding the cost of consumed electricity, water and natural gas, the distribution stages and methods shall also be determined. The determination of erroneous and fraudulent situations shall be determined by holding interviews with users who are interested in the results of the establishment's activity results.

When the general evaluation with regard to the audit of raw materials and materials is taken into consideration; it is necessary to analyze the procedures of the purchase, production and sales stages. Attention shall be paid to the separation of direct and indirect labor within the audit concerning labor costs. Subjects such as the calculation of the estimated wages of personnel, the determination of wage increase rates and idle times, etc., are quite significant for audit activities. When we examine the audit of production overheads; the methods used in the distribution of production overheads with regard to each produced product and whether these costs are in compliance with the standards of accounting records, become more of an issue. Moreover, in an audit of general costs, the deviations shall be determined by making a comparison with the operating results of previous periods and the necessary precautions shall be taken.

Enterprises carrying out their activities in accordance with the standards will be an indicator that the production costs are determined reliably and that cost audit works will reflect the truth adequately. Performing and auditing the follow-up of accounting records, the production stage and the storage stage regarding production activities in a digital environment will contribute to minimizing the occurrence of erroneous and fraudulent situations. Reporting audit results and presenting these reports to both the managers of the enterprise and to the users will affect the adequacy of the decision to be taken.

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Comparative Conventional and Islamic Banking in Terms of Finance

Yavuz Türkan

Introduction

Today, when they are getting modernized by means of technological developments, banking systems have increased and tried to change with time. Banks have been more important because many processes are carried out through them. Using banking systems is seen as the source of money and safety, people can realize each kind of import and export, money transfers and shopping. All of these processes in banking systems have caused the emergence of optional financial tools both for financiers and the needy. Today, nobody deals with banks which are the source of money. All people have already been obliged to use banks because salaries are paid via banks, but most of the shopping is done by credit cards. Thus, the society needs a banking system which is true, credible and favorable for the society.

When the conventional banks are analyzed, it is seen that they work based on interest; on the contrary, in Islamic banks, the profit is in the foreground. While in conventional banks the first aim is to increase the money step by step, in Islamic banks, the aim is to gain money by using it in profitable investments. All religions and many old philosophers have stated that interest is a dangerous matter, and announced that it should be prohibited. In Plato's Laws, he states that no one will pay with money at all, he uses certain expressions such as gold and silver; besides, his student, Aristotle, referred to this issue in his book Politics, "Many hate interest, and this hatred is entirely right; because interest is not a product of what it is in the name of money, but a gain of money itself. Money is thought to be a means of exchange; interest shows an increase in money itself. We are talking about earnings as if a grain product was like an animal lover; because every creature breeds the same thing, and the interest is the paradise that comes from the money. Therefore, among all the means of obtaining wealth, this is the most contrary to nature"

(Aristotle, Politics, 2006: 23-24). As it is stated in the sacred books that interest is not suitable, our great book has stated that in the Qur'an, interest is banned in many places. Allah warns us in His holy Qur'an stating "...but Allah hath permitted trade and forbidden usury..." (2: 275).

In a study conducted by PEW, an American research company, it is found that 24% of the world's population (1.8 billion) was made up of Muslims in 2015, and the Muslim population has increased faster than other religions in recent years (http://www.pewresearch.org). Besides, according to the analysis made by TSI of Turkey, to December 2017, the population of Turkey reached nearly 81 million (80,810,525 (http://www.tuik.gov.tr)) and in the studies made by the Religious Affairs Directorate of Turkey, 99.2% of this population is Muslim (DİB, 2014: 29). This shows that new banking systems and financial instruments that can address such a large number of people need to be developed.

In this study, the banking transactions of conventional and Islamic banks are briefly mentioned and the big differences between them are considered. In the last part of the study, the financial data of the banks are presented in the form of tables and graphs.

Comparative conventional and Islamic banking (participation banking)

Banks are divided into three groups in the context of banking law, and stated with the subtitles below (https://www.bddk.org.tr):

- **Deposit Bank**: it means the institutions which work by accepting deposits with their own name and account and make use of credits, and it means the branches of the banks in Turkey found abroad. As of 2018, there are 32 deposit banks in Turkey.
- **Participation Bank**: it means the institutions which collect funds by means of private, current and participation accounts, make use of credits, and it means the branches of the banks in Turkey found abroad. As of 2018, there are five (5) Participation Banks in Turkey, which are Albaraka Türk (1984), Kuveyt Türk (1989), Türkiye Finans (2005), Ziraat Participation (2015) and Vakıf Participation (2016).
- **Development and Investment Banks**: it means the institutions which accept deposits and participation funds, make use of credits, and also the branches of the banks in Turkey found abroad; as of 2018, there are 13 Development and Investment Banks in Turkey.

The main difference between Conventional Banks and Islamic Banks is the concept of interest and profit shares, as well as differences in many aspects arising from this situation. These differences are discussed below in a comparative manner and summarized with the help of the table.

Table 12-1. Comparison of Conventional and Islamic Banks

Difference Item	Conventional Banks	Islamic Banks
In Terms of Process	Conventional Banks and Islamic Banks are regarded as the same because they are compared with each other in terms of outcome. However, conventional banks are getting money directly from money, and it does not matter how and in which way the credit is used.	In Islamic banks, the process is extremely important. Transactions must be done in a specific order and in the direction of a specific purpose. The formation of a mobility of goods lies at the center of Islamic financial instruments. The fact that the activities toward production and investing are seen as appropriate in terms of philosophy
Advisory Board	Conventional Banks and Islamic banks are essentially subject to the same legal procedures.	Islamic banks, unlike conventional banks, must obtain an authorization certificate from the advisory committee or from the committee called the fatwa (Islamic Religious Law) board. These committees investigate whether the transactions made or the financial instruments to be applied are Islamic or not, in this way they give people confidence in this point.
Delayed Punishment	Delays in conventional banks are penalized directly with interest. Those who have difficulties in repayment may face more interest charges than the loans they have received.	In Islamic banks, the situation is treated differently. In the first years, although there was no transaction for delays in the loans given, today delay penalties are applied. When these ratios are determined, a delay penalty is requested in the form of "profit share that is deprived" due to the money that the borrowers do not pay. However, these values obtained by Islamic banks are not included in the capital of the banks. On the contrary, it is used in activities such as BAGIS.
Leasing Operations	These banks cannot conduct leasing	Islamic banks have a legal infrastructure that can lease

	transactions directly but can carry out these transactions with their own leasing companies.	financial leasing without opening a leasing company.
Credits Granted	While credit is given by the banks, it is not so important if there is a product in the middle of a loan when the banks are given credit. The credit to be given by the banks lies directly at the account of the depositor.	The existence of the products is extremely important for Islamic banks. The real estate is bought by the bank and sold to the depositor by including the municipal difference. During the purchase of the real estate, the bank appoints the depositor in its own name and deposits the money to the account of the seller
Credit Ratios	When the interest rates of the credit are determined, the following formula is taken into account: = Real Interest Rate + Expected Inflation + Default Premium + Risk Premium + Maturity Premium.	As profit rates are determined in the market, they are close to interest rates. However, they are certainly determined based on the market conditions, and the profit rates are not exactly determined concerning the interest rates. In particular, supply and demand in the market determine the credit ratios.
Personal Finance Credit	Any needed loan can be taken.	Because the loan itself is an interest-bearing transaction, it is impossible to be realized.
In terms of employees	Employees are legally entitled to the same rights. However, because the wages of the employees are provided from the interest incomes which constitute the main income of the bank, it is not considered appropriate in terms of religion.	Because Islamic banks provide their income from profit-making transactions based on the method of murabaha, they pay the wages of their employees from the money provided from these activities. Thereby, there is no objection in terms of religion.
Accounting transactions	Financial tables and accounting transactions of conventional banks and Islamic banks are similar to each other. The unique difference is the existence of interest and non-interest income and expense in Conventional Banks.	In Islamic banks, income and expenditure accounts of profit share and out of it are used instead of interest and non-interest income and expenses.

Service Credits	Customers can benefit from individual loans (need loans) when applying to get services. These transactions require the payment of interest.	The services such as Umre, Holiday, etc., are purchased from the companies after being agreed with the customers and the sale transaction is realized by adding a certain profit share.
Sukuk Export	The sukuk transaction is not performed since fixed-interest assets such as bonds and bills are used.	Since fixed-rate investment tools are not preferred, it has benefited more from sukuk, which is an asset-based rental certificate.
Required Reserves	The required reserves are taken in the determined ratio by the Central Bank every year to preserve the investors from all kinds of risks that can be faced, and to manage the liquidity controlling money. Interest is paid to this amount in accordance with Article 12 of the Communique on Required Reserves (http://www.tcmb.gov.tr) in place of "The required reserves held by the Central Bank mean to keep money determined every year in the hands of the Central Bank to be cautious against all the risks that may arise in the deposit accounts of the banks and to control the liquidity. These amounts which the conventional banks have invested are paid interest according to the Communiqué on Required Reserves."	Required reserves are also deposited by Islamic banks. However, in accordance with the Communiqué No. 2014/3, Article 12, Islamic banks do not accept such interest because there is a possibility that interest payments can be paid according to the principles and procedures determined by the Central Bank for the required reserves.
Stock Transactions	Because of the intermediary services of the conventional banks, stocks of all companies	Islamic Banks conduct intermediary services for the stocks of companies that are not interest-bearing, religiously favorable, especially

	traded on the stock exchange can be bought and sold. No company is considered different.	those in Participation 30 and Participation 50.
Crisis Periods	Losses in the crisis are fully met by the banks. The interest rates that the depositors will receive in the framework of the contracts they have made are certain.	In times of crisis, the depositors have a share in case of any damage in the banks because the depositors have a share both in profit and loss. However, small losses that may be experienced in normal times are provided by the banks, and these are not reflected in the customers.

Comparison of conventional and Islamic banks in term of finance

In the study, a comparison was made between the Conventional Banks and Islamic Banks using the data of 78 months between December 2011 and May 2018. The study data were published by the Participation Banks Association of Turkey. Since the data for March 2012 and May 2013 were not available, the averages of their previous and next months were included in the analyzes. As the older information in the data was not available, the data obtained by accepting December 2011 as a base year were subjected to trend analysis. With trend analysis, the increases and decreases in data are expressed as percentages and the increases and decreases between banks are expressed in comparative terms.

The comparative data for the 78 months of December 2011 to December 2018 and May 2018 of Conventional Banks and Islamic Banks are given in the table below.

Table 12-3. The Comparative Data of Conventional Banks and Islamic Banks (Million TL)

		Dec.11	Dec.12	Dec.13	Dec.14	Dec.15	Dec.16	Dec.17	May.18
Funds Collected	**Convent. Banks**	698.743	783.888	949.318	1.056.628	1.250.016	1.459.269	1.719.149	1.903.035
	Islamic Banks	39.374	48.198	61.495	65.405	74.362	81.505	105.310	120.808
Funds Allocated	**Convent. Banks**	696.793	829.597	1.094.132	1.280.118	1.513.969	1.773.745	2.145.479	2.407.531
	Islamic Banks	41.096	50.031	67.248	69.622	79.191	84.880	106.733	122.630
Total Assets	**Convent. Banks**	1.217.695	1.370.614	1.732.413	1.994.161	2.357.522	2.730.942	3.257.819	3.639.545
	Islamic Banks	56.148	70.279	96.086	104.163	120.252	132.874	160.136	181.185
Shareholders' Equity	**Convent. Banks**	144.646	181.882	193.745	231.945	262.271	300.172	359.091	387.285
	Islamic Banks	6.194	7.377	8.852	9.610	10.642	11.494	13.645	15.087
Net Profit	**Convent. Banks**	1.565	23.523	24.686	18.659	2.073	2.467	49.122	23.839
	Islamic Banks	39	916	1.071	473	107	22	1.583	1.051
Number of Staff	**Convent. Banks**	195.271	201.474	214.226	216.880	217.504	210.910	208.280	208.913
	Islamic Banks	13.851	15.356	16.763	16.249	16.554	14.465	15.029	15.252

Number of Branches	**Convent. Banks**	10.517	11.066	11.986	12.210	12.269	11.747	11.585	11.582
	Islamic Banks	685	829	965	990	1.080	959	1.032	1.049

Source: TKBB, http://www.tkbb.org.tr/mukayeseli-tablolar, Date of Access: July 2018

According to the results of the comparison, it was seen that Conventional Banks increased their collected funds by 2.76 times and their funds which were made to be used by 3.45 times, while the Islamic Banking funds increased by 3.06 times and funds which were made to be used by 2.98 times. It is understood that the Islamic banks have a better percentage in terms of collected funds, but they are treated more carefully in terms of the funds that are used. It is seen that the size of the assets of conventional banks is very high compared to Islamic banks, but Islamic Banks have a better percentage growth rate. The equity of conventional banks is 25 times that of Islamic Banks. This situation is due to the fact that the number of conventional banks is large and they have more years of experience than Islamic Banks. While the conventional banks increased the number of personnel and the number of branches by 7% and by 10% respectively, Islamic Banks achieved great success in employment by increasing the number of personnel by 10% and the number of branches by 53%. It is seen that while there is a steady upward trend in the data of conventional banks, Islamic Banks had a breakdown in July 2016. When the reason is examined, it is seen that the impact of the July 2016 coup attempt and the reflection of the closure of Bank Asia influenced the Islamic Banking sector. However, it is understood that the same increase has been captured in the last two years because two Islamic banks (Ziraat Participation and Foundation Participation), which are state-owned, have had a great influence on entering into market.

Conclusion

In the study, the comparison of Conventional Banks and Islamic Banks has been considered in many aspects. It is seen that the Islamic Banks, which are resistant to crisis, play an active role in growth and development, and offer financial instruments to invest with new finance models, have recently increased their effectiveness. The most important factor that distinguishes Islamic banks from Conventional banks is that interest is excluded from financial instruments. Interest processing is forbidden and not favored by both old and new thinkers, and divine religions. It has been emphasized as a system that takes money from the poor by increasing the gap between the rich and the poor. Islamic banks are developing new systems based on production free interest, in which the existence of goods is obvious. These financial instruments, which are examined by the Fatwa Board, are dealt with by the approval of the advisory board.

The transactions made in Conventional banks and Islamic banks differ in terms of process. While the money given in the transactions made in Conventional banks and the interest it provides are important, the goods are in reality in the Islamic banks and as a result, it is aimed to obtain a certain profit by shopping transactions. While many individual or institutional credit transactions conducted in conventional banks are also carried out in Islamic banks, it is of great importance that transactions are carried out in accordance with Islam in terms of the process. It is observed that the funds that are used are invested in interest-free financial instruments when the transactions are performed according to the participation principle in the collected funds.

Now, there are five Participation (Islamic) banks in Turkey. The 78 months of data from December 2011 to May 2018 of these banks and Conventional banks were compared and subjected to trend analysis. As a result of the analysis of these data, it is seen that Islamic Banks are more successful in factors such as Fund Aggregation, Total Assets, the Number of Personnel, and the Number of Branches than Conventional Banks, but they have lower percentages in fund utilization and equity generation. It was observed that Conventional banks and Islamic banks entered a bullish trend compared to the previous year but Islamic banks were found to have a downward trend in July 2016 while Conventional banks showed a steady increased trend. As a result of the examinations made, it was determined that this breakdown originated from the reflections of the 2016 coup initiative and the closure of Bank Asia in the Participation Banking sector. Despite this, it seems that in recent years a better rising trend has been achieved. This is due to the increase in transaction volume in the state-funded Ziraat and Vakıf Participation Banks, which have been established in recent years.

As a result, the performance of Islamic banks in Turkey is very attractive but it actively increases the volume of transactions with the magnitude required. In raising investment in Islamic countries, increasing the level of knowledge about the conservative part of participation banking or Islamic banking is thought to increase the transaction volume of these banks and contribute to the conversion of savings into investments.

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The Significance and Benefits of The Enterprise Risk Management System for Businesses

Suat Yildirim and Hüseyin Özyiğit

Introduction

Enterprise risk management (ERM) enables companies to handle all risks in a comprehensive and consistent manner, rather than managing individual risks. The Harvard Business Review magazine designated ERM as one of the breakthrough ideas of 2004. Rating agencies, professional associations, legislative bodies, regulatory agencies, stock exchanges, and international standardization organizations conducted some studies to promote the adaptation to ERM (Arena et al., 2010). Because these kinds of studies came to prominence, financial institutions were the first to put ERM into practice. This study discusses two main points. The first is to clarify the scope and meaning of ERM, and the other considers the importance of ERM theory and its practice for businesses. The extensive micro/macro studies on organizations such as risk, finance, accounting, strategy, and decision-making have been used to provide information on these points. This study is thought to contribute to the development of the implementation of ERM in businesses.

Enterprise risk management and its components

There is more than one definition of ERM, which is addressed by researchers and regulatory agencies. The main reason for this is that risk is viewed either as an issue to be reduced or as an opportunity to create potential value. The Committee of Sponsoring Organizations (COSO) (2004) defined ERM: “Enterprise Risk Management is a process, effected by an entity’s board of directors, management and other personnel, applied in a strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of the entity's objectives." Enterprise Risk Management consists of the following 8 components: internal environment, objective setting, even identification, risk assessment, risk response, control activities, information-communication, and monitoring. The efficiency of the enterprise risk management system depends on the effective establishment and operation of these 8 components. The enterprise risk management model was visualized in COSO Enterprise Risk Management (ERM) in the shape of a cube, as shown in Figure 13-1.

Figure 13-1. COSO Enterprise Risk Management (ERM) Components

The enterprise risk management components on the front face of the Enterprise Risk Management Cube are explained below:

- The internal environment has an influence on the structuring of business activities; the identification, evaluation, and management of risks; and the creation of corporate objectives and strategies (COSO ERM, 2004).
- The objective setting puts forward the need for the determination of corporate objectives prior to identifying risks and determining responses appropriate to the risks (COSO ERM, 2004).
- According to the event's identification component, management should identify potential events that can affect the organization in case they emerge and determine whether these events will positively or negatively affect the implementation of corporate strategies and achievement of their objectives (COSO ERM, 2004).
- Risk assessment specifies the management's assessment of events in terms of the probability of occurrence and, if they occur, their

probable effects by using qualitative and quantitative methods (COSO ERM, 2004).

- In terms of the risk response component, the management determines the response to be given to assessed risks (COSO ERM, 2004).
- Control activities are procedures and policies developed to ensure that risk responses identified by the management are realized (COSO ERM, 2004).
- The information and communication component includes the collection, identification, and transmission of relevant information so that employees can fulfill their responsibilities (COSO ERM, 2004).
- The monitoring component is the assessment of the effectiveness and existence of enterprise risk management components. The shortcomings and hitches identified as a result of monitoring activities are reported to the top management and the board of management (COSO ERM, 2004).

In order for the enterprise risk management system to effectively operate, all these components should be established and operated effectively within the organization. On the right face of the COSO ERM cube are institutional levels. Enterprise risk management activities need to be implemented throughout the organization. On the top face of the COSO ERM cube are corporate objectives. Strategic objectives are high-level objectives that support the mission and vision of the organization. Operational objectives ensure the effective and efficient use of resources. Reporting objectives ensure the reliability of reports. Compliance objectives ensure that the organization is run in accordance with laws and regulations.

Development of enterprise risk management

Historically, businesses have managed different types of risks separately, not as a whole. The reason for the separate management of risk types in this way was that different functions of the organization addressed different parts of risk management. An example of this situation is that risks about currency or interest rates are generally taken into consideration in the financial field. In 1965, arguing that businesses only care about systematic risks (beta), risk management assumed that it was not necessary to make investments to reduce non-systematic risks. However, towards the end of 1965, financial specialists conducted studies on the importance of non-systematic risks for businesses as well. Kloman worked with many researchers to develop a coordinated approach to risk management, which began in 1976 with the "Risk Management Revolution". In 1986, the benefits of integrating risk management activities into a single framework were highlighted (Shapiro and Titman, 1986). ERM emerged as a corporate concept in the mid-1990s. In 1996, businesses operating scientifically according to traditional risk management preferred to avoid risk, whether the commercial activities carried out had an advantage or not. In addition, it has determined that businesses adopt coordinated risk management and engage in business activities likely to generate low returns. In 1999, the integrated risk management approach was adopted (Colquitt et al., 1999). The first academic articles using the term "Enterprise Risk Management" emerged in 2001. ERM emphasized the integration of different risk types. Thus, businesses began to incorporate different risk management approaches within the operation process (Doherty, 2000). Today, along with the increasing importance of risk and risk management, guidelines were formed to assist businesses in risk management activities. One of the most widespread used guidelines is the Enterprise Risk Management-Integrated Framework (ERM) published in 2004 by the Committee of Sponsoring Organizations (COSO). ERM information and innovations are predominantly being created by this committee. In Turkey, regulations on ERM were enacted. In the Communiqué on Identification and Application of Corporate Governance Principles promulgated in the official gazette dated 30/12/2011 and numbered 28158, the Capital Markets Boards of Turkey stated the following regarding the ERM: “The Audit Committee, the Corporate Governance Committee, the Nomination Committee, the Early Risk Detection Committee, and the Price Committee should be established to ensure that the duties and responsibilities of the board of directors are fulfilled in a sound manner.” However, in case a separate Nomination Committee, Early Risk Determination Committee, and Price Committee cannot be established due to the structure of the board of directors, the Corporate Governance Committee fulfills the duties of these committees (www.spk.gov.tr). A regulation was enacted as follows: “The ERM-oriented Early Risk Determination Committee conducts studies on the early detection of risks that may jeopardize the Company's existence, development, and continuation; the implementation of the necessary measures related to the identified risks; and the management of the risk." The ERM-oriented early risk determination and its management are in article 378 of the Turkish Commercial Code promulgated in the official gazette dated 13/01/2011 and numbered 6102. According to article 378, “for companies whose shares are listed in the stock exchange, the board of directors is required to set up an expert committee to run and to develop the system for the purpose of early detection of the causes that jeopardize the existence of the company, its development and continuity of the business unit in danger, of applying the necessary measures and remedies in this regard, and of managing the risk. In other companies a similar committee, if deemed necessary and if the board of directors is notified in writing by the auditor, shall be constituted and shall submit its first report at the end of the month following its constitution. In a bimonthly report to the board of directors, the committee shall evaluate the situation, indicate the dangers, if any, and suggest remedies." Furthermore, in article 378 it was also regulated that the report shall also be sent to the auditor (www.mevzuat.gov.tr).

Literature review on enterprise risk management

There are many studies in the literature about the necessity, contribution, and importance of enterprise risk management. There are studies indicating that enterprise risk management will increase the performance of businesses (Beasley et al., 2008), reduce capital costs and enable businesses to make more accurate decisions (Nocco and Stulz, 2006), provide a competitive edge and increase capital distribution efficiency (Kommunori et al., 2016). Hoyt and Liebenberg (2011) found that the firm's performance and value increased when the risk management board worked effectively. Gordon et al. (2009) determined that the relationship between ERM and the firm's performance depended on how well the application of ERM matched with firm-specific factors. McShane et al. (2012) identified that insurance companies coordinated enterprise risk management based on risk aversion in their risk management processes. In their study on the relationship between enterprise risk management and businesses in Italy, Florio and Leoni (2017) examined corporate governance reports to determine whether enterprise risk management practices existed or not. As a result of the study, it was asserted that there was a statistically significant and positive relationship between enterprise risk management practices and a return on assets. When the literature review is generally evaluated, prominent issues in enterprise risk management-oriented studies are as follows: the effect of ERM on the firm's value, the profitability of the company, and the firm's performance; and the identification of ERM's existence in businesses. This study aims to contribute to the literature by specifying the necessity and benefits of ERM for businesses.

The objectives of enterprise risk management and its benefits for businesses

The objective of enterprise risk management is to reduce incidents that may harm businesses in the future, to reduce negative consequences of these incidents and to increase the success of businesses in reaching their objectives. Implementation of ERM enables identification of risk culture and risk appetite, how risk cultures and risk appetites of businesses differ at various levels, which criteria are assessed in measuring enterprise risk, and how risk measurement results affect business behavior. Risk management protects and adds value to businesses and stakeholders by supporting the objectives of businesses. It contributes to the preservation and development of the corporate image together with all the resources of the organization. It increases the efficiency of corporate activities by reducing drastic losses or fluctuations in its business segment. ERM emphasizes that top management and the internal audit mechanism of businesses should act together. When the ERM needs of businesses are considered, one of the main responsibilities of business management is risk management. Internal auditors should assist management by reviewing, evaluating, and reporting on the adequacy and effectiveness of risk processes carried out by management and proposing remedial measures in this regard. Top management is responsible for the risk management and control processes of the enterprise. However, the internal auditors who assume the consultancy role also have duties in defining and assessing risks, implementing risk management methods, and taking and implementing control measures related to these risks (www.na.theiia.org). Some businesses have established risk management committees to better audit and control enterprise risk management. The risk management committee is very important for examining how changes in the structures and processes of the board of directors and the transactions in operating periods affect the risk behavior of the businesses (Adam and Shavit, 2009). In businesses, the Chief Risk Officer (CRO) has duties such as the following: improving the concept of the systematic risk management culture; ensuring that critical risks are defined effectively by decision-makers; ensuring that risks are understood by all practitioners and decision-makers at the same level and content; and presenting efficient reports and establishing an information flow system for risk management. Businesses face various risks such as financial, operational, strategic, and external environmental risks. A single strategic decision to be made can involve multiple risk types occurring at different times. For this reason, such risks are considered as a whole and included in the enterprise risk portfolio in the implementation of ERM. The benefits of enterprise risk management are generally as follows: more meticulous preparation of decision-making and planning, an increase in stability, minimizing surprises and being more prepared, more soundly determining strategies, an increase in the interest of the investors, more quickly reaching effective risk information, an increase in communication and cooperation among units, better detection of opportunities and threats, an increase in competitive power, performing proactive management rather than reactive management, more efficient allocation and use of resources, ensuring that capital is distributed more efficiently among business units, building the trust and confidence of stakeholders, ensuring the continuity of compliance with laws and regulations, and risk-based monitoring of performance (www2.deloitte.com). The need for ERM has become important because there is the assumption that the ERM process helps businesses adopt risk policies that are more appropriate for themselves and they can more objectively reach their future goals (Checkley, 2009).

Conclusion

In this study, regulations, practices, and researches related with risk and ERM were examined to develop recommendations on the benefits that ERM provides to businesses. Businesses have specific methodological and theoretical bases to apply ERM processes in the fields of finance and accounting. The transition to ERM-oriented holistic risk management has made it imperative for practitioners to have basic managerial knowledge and skills to assess risk. This understanding contributes to the concept of basic risk that covers all functions of businesses and the solution of problems. In order for ERM to be able to contribute to businesses, they should operate with an approach that is different to the past-oriented risk practices used. In the past, risk and strategy management only tried to explain the temporal value of the firm's risk and its differences relative to other firms. In order for ERM to develop, businesses should comply with regulations and rules and be open to novelties, different practices and activities. ERM raises the efficiency of the organization to the highest level by managing risks covering all operating segments of businesses. ERM includes the concept of strategic risk as well as the concept of traditional risk. That is to say, every significant risky decision in the business goes through the ERM process. Generally, the greatest risk facing an organization is to make wrong decisions arising from the lack of data obtained in the past. Here ERM is one of the most important practices that will help to resolve this situation. ERM also provides a competitive edge by managing existing risks along with reducing risks. Considering the basic components of ERM; businesses should adopt ERM and conduct studies on improving the effectiveness of ERM in order to maintain their status quo, holistically assess their risks, analyze all risks, propagate the concept of risk management within the organization, and steer away from mistakes when making decisions about the future.

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CONTRIBUTORS

Yakup Aslan is a doctor instructor at Bitlis Eren University Ahlat Vocational School in Turkey. His research interests are international accounting standards, forensic accounting, firms' performance, auditing financial accounting and cost accounting.

Tuğba Eyceyurt Batir is an assistant professor at Erzincan Binali Yıldırım University Faculty of Economics and Administrative Sciences in Turkey. Her research interests are banking, finance, Islamic banking and financial management.

Alper Karavardar is an associate professor at Giresun University Faculty of Economics and Administrative Sciences in Turkey. His research interests are auditing and financial accounting.

Emine Kaya is a research assistant at Ağrı İbrahim Çeçen University. She has a PhD degree in Atatürk University. Her research interests are corporate finance, asset pricing, portfolio management, international finance and financial markets.

Ersin Kurnaz is an assistant professor at Erzincan Binali Yıldırım University Faculty of Economics and Administrative Sciences in Turkey. His research interests are internal control, forensic accounting, auditing financial accounting and cost accounting.

Seyhan Öztürk is an assistant professor at Kafkas University in Kars, Faculty of Economics and Administrative Sciences, Accounting and Finance Department in Turkey. Her research interests are control self-assessment, internal control, forensic accounting, auditing and cost accounting.

Hüseyin Özyiğit is working as a Lecturer in the Departmant of Finance-Banking and Insurance at the Vocational School of Kemah at Erzincan Binali Yıldırım University in Turkey. His research interests are enterprise risk management, external auditing, internal auditing, internal control, financial statement analysis, management accounting, and cost accounting, accounting standards, insurance accounting, bank accounting.

Murat Serçemeli is an assistant professor at Giresun University Faculty of Economics and Administrative Sciences in Turkey. His research interests are auditing, financial accounting and accounting education.

Uğur Sevim is an assistant professor at Giresun University Faculty of Economics and Administrative Sciences in Turkey. His research interests are finance, financial management and financial markets.

Fatma Temelli is an assistant professor at Ağrı İbrahim Çeçen University Faculty of Economics and Administrative Sciences Accounting and Finance Department. Her research interests are accounting, finance, auditing, auditing of accounting and cost accounting.

Büşra Tosunoğlu is an assistant professor at Gumushane University Faculty of Economics and Administrative Sciences in Turkey. Her research interests are cost accounting, cost management, auditing and financial management.

Yavuz Türkan is an assistant professor at Bingol University, Faculty of Economics and Administrative Sciences in Turkey. His research interests are Islamic finance, Islamic banking, Islamic wealth management, corporate finance, development finance, microfinance and financial inclusion strategies.

Suat Yıldırım is a professor at Erzincan Binali Yıldırım University Faculty of Economics and Administrative Sciences in Turkey. His research interests are general accounting, external auditing, internal auditing, cost accounting, internal control, risk management, corporate governance and management accounting.