REPUBLIC OF TURKEY

ADANA ALPARSLAN TÜRKEŞ SCIENCE AND TECHNOLOGY UNIVERSITY

GRADUATE SCHOOL OF SOCIAL SCIENCE

DEPARTMENT OF BUSINESS AND ADMINISTRATION

EXAMINATION OF THE EFFECTS OF ACCOUNTING ESTIMATES CHANGES ON THE INCOME STATEMENT: AN EXAMINATION ON ISE COMPANIES

Zeynep ÖZENİR HAYDAROĞLU

MASTER OF SCIENCE

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Assoc. Prof. Ahmet BEYCİOĞLU
Graduate School Director

Prof. Dr. Celile ÖZÇİÇEK DÖLEKOĞLU
Department Chair

Assoc. Prof. Alpaslan YAŞAR
Supervisor

Tez Jürisi

Assoc. Prof. Alpaslan YAŞAR
Adana Alparslan Türkeş Science and Technology University

Prof. Dr. Mehmet Ünsal MEMİŞ
Çukurova University

Assoc. Prof. Neriman YALÇIN
Adana Alparslan Türkeş Science and Technology University

Tez Savunma Tarihi

27/07/2022

I hereby declare that all information in this thesis has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all information that is not original to this work.

[İmza]

Zeynep ÖZENİR HAYDAROĞLU

ÖZET

MUHASEBE TAHMİN DEĞİŞİKLİKLERİNİN GELİR TABLOSU ÜZERİNE ETKİLERİNİN İNCELENMESİ: BİST ŞİRKETLERİ ÜZERİNE BİR İNCELEME

Zeynep ÖZENİR HAYDAROĞLU
Yüksek Lisans, İşletme Anabilim Dalı
Danışman: Doç. Dr. Alpaslan YAŞAR
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İşletmelerin açıklamış olduğu muhasebe tahminlerinin ve muhasebe tahmin değişikliklerinin finansal bilgi kullanıcılarının kararları üzerinde etkileri olabilmektedir. Özellikle, muhasebe tahminlerindeki bir değişikliğin hem cari dönem hem de gelecek dönem mali tabloları üzerinde etkileri olabileceğinden, muhasebe tahmin değişikliği etkilerinin incelenmesi önem taşımaktadır.

Bu çalışmanın amacı, muhasebe tahmin değişikliklerinin kâr/zarar tablosu üzerindeki etkilerini TMS 8 standardı kapsamında incelemektir. Bu amaca bağlı olarak, Borsa İstanbul (BİST)'te 2013-2021 yılları arasında işlem gören tüm sektörlerdeki şirketlerin finansal raporları, muhasebe tahmin değişikliklerinin sıklıkla hangi konularda yapıldığı, tahmin değişikliklerinin hangi tür denetim kuruluşları tarafından, hangi türde denetim görüşleri ile ve hangi sektörlerde verildiği, tahmin değişikliklerinin cari dönem kâr/zarar tablosu ve gelecek dönem kâr/zarar tablosu üzerinde etkileri içerik analizi yöntemiyle incelenmiştir.

Araştırmanın temel bulguları; faydalı ömür değişikliğinin en çok yapılan muhasebe tahmin değişikliği olduğunu, muhasebe tahmin değişikliğinin kâr/zarar tablosu üzerinde etkisinin artış ve/veya azalış yönünde olduğunu, cari dönem kâr-zarar tablosunda en fazla azaltıcı etkinin 2014 yılında; en fazla artırıcı etkinin ise 2018 yılında olduğunu göstermiştir.

Anahtar Kelimeler: Muhasebe tahminlerinde değişiklikler, TMS-8, finansal raporlar.

ABSTRACT

EXAMINATION OF THE EFFECTS OF ACCOUNTING ESTIMATES CHANGES ON THE INCOME STATEMENT: AN EXAMINATION ON ISE COMPANIES

Zeynep ÖZENİR HAYDAROĞLU

DEPARTMENT OF BUSINESS and ADMINISTRATION

Supervisor: Assoc. Prof. Dr. Alpaslan YAŞAR

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The accounting estimates and the changes of accounting estimates that enterprises have elucidated may have some impact on the resolutions of financial information users. In particular, it is crucial the examination of the impacts of accounting estimation changes be made as any change in the accounting estimates is likely to influence the financial statements of both current and next period.

The purpose of this study is to review the impact of accounting estimation changes on the profit/ loss table as part of the TMS 8 standard. In line with this purpose, financial reports of companies in all sectors traded in the Stock Exchange Istanbul (ISE) between 2013-2021, within what sorts of issues accounting forecasting changes were dealt frequently; by what sort of audit organizations, with what type of audit views and in what kind of sectors accounting forecasting changes were presented ; and, the effects of predictive changes on both current and next term profit/ loss tables were all utterly analyzed by using the method of content analysis.

The main findings of this study have indicated that useful life change is the most common accounting estimate change; the impact of the accounting estimate change on profit / loss table is as an increase and / or decrease; the most lessening effect of current term on profit/ loss table was in 2014; and the most increasing effect was in 2018.

Keywords: Accounting estimates changes, TAS 8, financial report.

To Deniz..

ACKNOWLEDGEMENT

The uncertainty of the results of business activities can lead to uncertainties in the calculation of many items in the financial statements. Since the result of the business activities cannot be determined in advance, the values of the account items can be determined by making an accounting estimation in line with reliable information. However, with the acquisition of new information or the occurrence of new developments, businesses can make changes in their accounting estimates. Depending on the changes in the accounting estimates made, the financial statements of the enterprises are affected. In this thesis study; In the sample of companies in all sectors traded in Borsa Istanbul between 2013-2021, the effects of accounting estimation changes announced in the financial reports of companies were discussed in various aspects and the effect of accounting estimation changes on financial statements was investigated.

I would like to express my respect and endless thanks to my advisor Assoc. Dr. Alpaslan YAŞAR, who did not spare his knowledge, who support and sincerity during my graduate education, who helped me develop, taught and patiently guided me in solving the problems with dedication and sincerity at all stages related to my thesis.

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To My Dear mom Lemye ÖZENİR and dad Zeyniddin ÖZENİR, who made me come to this day because of their endless love and support,

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Zeynep ÖZENİR HAYDAROĞLU

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ABBREVIATIONS

ISE	: Stock Exchange Istanbul
TAS	: Turkısh Accounting Standards
SME FRS	: Financial Reporting Standard for Small and Micro Enterprises
TFRS	: Turkish Financial Reporting Standards
LMSE FRS	: Financial Reporting Standards for Large and Medium Enterprises
CMB	: Capital Markets Boards of Turkey
ERP	: Enterprise Resource Planning
FIFO	: First In First Out
IFRS	: International Financial Reporting Standards
TPL	: Tax Procedure Law
POA	: Public Oversight, Accounting and Auditing Standards Authority of Turkey
PDP	: Public Disclosure Platform

1. INTRODUCTION

The inability to fully determine the value of financial statement items due to uncertainties specific to business activities requires the determination of the value of account items by making judgmental estimations using up-to-date and reliable information (TAS-8, paragraph 32). In addition, it is also important to present accounting estimates and assumptions in a clear and understandable way in ensuring an effective communication through financial reporting (Süer, 2021: 25).

Businesses can make changes in the accounting estimates (AE) they have made in various situations. Depending on the effect of accounting estimation changes on the financial statements, they are reflected in the relevant financial statements and explained in the financial statements. In this context, how accounting estimation changes should be reflected and explained in the financial statements is regulated within the scope of Turkish Accounting Standards, Financial Reporting Standard for Large and Medium-Sized Enterprises (LMSE FRS). Moreover, it is regulated under the Financial Reporting Standard for Small and Micro Enterprises (SME FRS), which is still in draft form.

While changes in accounting estimates (AEC) affect the current period, they may also affect future periods (Gürdal, 2006: 8). The prospective application of a change in accounting estimate means that the change in accounting estimate is reflected in the current and future financial statements affected by the change (TAS-8, paragraph 5). In reflecting a change in the AE to the prospective financial statements; It is reflected to the financial statements prospectively by considering whether the change causes a change in assets and liabilities, whether it is related to the equity item and which periods it affects According to this; Two situations arise if a change in AE does not result in a change in assets or liabilities or is not related to an item of equity. If the relevant change only affects the period in which the change was made, the profit or loss of the period in which the change was made; if the change affects future periods as well as the current period in which the change occurred, it is included in the profit or loss of both the current period (where the change occurred) and future periods (TAS-8, paragraph 36). On the other hand, a change in the AE; If there is a change that causes a change in assets and liabilities or is related to an equity item, the related item (asset, liability or equity) is reflected in the financial statements by adjusting the book value in the period in which the change occurred (TAS-8, paragraph 37).

Provisions regarding the disclosure of accounting estimation changes in financial statements within the scope of TAS/TFRS are included in Articles 39 and 40 of the current version of TAS-8. According to this; In the event of an accounting estimate change, the entity must disclose the nature and amount of the AE change that has had an effect in the current period or is expected to have an effect on the future period. If the effect of the change in AE on future periods cannot be estimated by the entity, this effect is not disclosed (TAS-8, paragraph 39). However, in such cases, it should be explained that it is not possible to estimate the effect of the change in AE on future periods (TAS-8, paragraph 40).

In this framework, it is important to examine which accounting changes occur in businesses and their reflection in the financial statements and the way they are explained.

1.1. Research Problem

A couple of uncertainties and drawbacks in the whole and complete determination or valuation of financial statements entail that most enterprises should conjecture on these financial statements. The fact that these estimates are realized based on judgment and assumption is liable to have influence on financial statements and accordingly, the decisions of the financial information users. Furthermore, it is necessary to reflect and clarify the effects of corresponding forecasting changes to financial statements in accordance with accounting standards in order for the information users to make correct decisions since any change in AE may have some impact on the current and next terms of financial statements, notably statement of income. In this respect, it is of importance to review what the accounting forecasting changes are supposed to have an influence on the decisions of information users over financial statements, how they reflect on financial statements and how they are stated.

In this context, the main research problem and sub-research problems of this study were determined as follows:

The Main Problem of the Research: How do changes in accounting estimates affect the income statement within the scope of TAS-8?

Sub-Problems of the Research:

1. What are the circumstances that require changes in the accounting estimate?
2. What are the most common accounting estimate changes?
3. How are accounting estimate changes disclosed in the financial statements?

4. What type of audit opinion do companies that disclose a change in accounting estimate give?
5. What types of audit organization are companies that disclose accounting estimate changes audited?
6. What is the effect of accounting estimation changes on current and/or future profit/loss?
7. What types of audit opinions are given to companies whose changes in accounting estimates affect the profit/loss statement for the period, and by which types of audit firms?

8. What is the direction and magnitude of the impact of the accounting estimate change on profit/loss?

1.2. Purpose of the Research

The primary purpose of this study is to review the reflection of AE changes over the statement of income (profit/ loss table) as part of the TAS-8 standard. In line with this objective, the frequency of estimate changes in publicly traded corporations of Turkey, what sort of AE changes are made, by what type of audit organizations; through what sort of audit opinions and in what sectors these estimate changes are performed, the effects of estimate changes on current and next term profit/ loss statements have been specified by utilising content analysis.

1.3. Methodology of the Research

In this study, in which the changes in AEs of companies traded in Stock Exchange Istanbul (ISE) between 2013-2021, which announced changes in AEs, were analyzed by content analysis, the following method was followed:

- Companies traded in ISE between 2013-2021 were determined.
- Companies that announced changes in AEs were identified.
- The nature and amount of the accounting estimation changes, their effect on profit/loss, the type of audit opinion given and by which type of audit firm were analyzed using the content analysis method.

1.4. Contribution of the Research to the Literature

This study, which examines the effects of accounting estimation changes on the income statement, is expected to make some contributions to the literature.

The first of these contributions is to examine the reflections of accounting estimation changes on the financial statements from various perspectives.

Secondly, it differs from previous studies in terms of examining the effects of changes in AEs on profit/loss and examining these effects from the perspective of the audit opinion and the audit firm, using the content analysis method.

Another contribution of the study is the realization of the study on current data as of the study date.

In addition, since no previous study similar to the subject of the study has been found, it is thought that it will contribute to the literature in terms of future studies.

1.5. Plan of the Research

This study, which examines accounting estimation changes, consists of five chapters and a conclusion.

In the first part, which is the introduction part of the study; The problem, purpose, method, contribution to the literature and research plan of the research are included.

In the second part of the study; the conceptual framework regarding accounting policies and accounting estimation changes takes place.In this chapter; First of all, the concepts of accounting policy, AE, accounting policy and AE change, retrospective and prospective application of accounting policy, prospective application of AE change are explained.Then, examples of accounting policy change and AE change are given.

In the third part of the study; Information on the use of AEs and their explanation in the financial statements in accordance with Turkish Accounting Standards are included. In this context, general explanations are given on how AEs are made in account items with high uncertainty and on the disclosure.

In the fourth part of the study; The results of the literature review in the national and foreign literature that may be related to the accounting estimation changes are given as a summary.
In the fifth part of the study; There is an application section in which the determinations regarding the AE changes of the ISE companies that announced changes in AEs in 2013-2021 are revealed and evaluated by the content analysis method.In this section, the method of the research and the results of the content analysis are given in tables and evaluations are made.
In the conclusion part of the study; The conclusions reached within the scope of the study, the limitations of the study and future research suggestions are included.

2. ACCOUNTING POLICIES AND ACCOUNTING ESTIMATE CHANGES: A CONCEPTUAL FRAMEWORK

2.1.Accounting Policy and the Concept of Accounting Policy Changes

2.1.1. Accounting Policy Concept

The concept of accounting policy is defined in TAS 8-Accounting Policies, Changes in Accounting Estimates and Errors Standard, as the principles, rules and practices used in the preparation and presentation of financial statements declared by the enterprise (TAS 8, paragraph 5). In other words, accounting policies; These are the practices that determine how the effects of transactions and other events will be reflected by accounting for the elements in the financial statements, selecting and presenting the measurement basis (Cenar, 2012: 51). For example; It is the accounting policy of the enterprise to evaluate the inventory by choosing one of the cost methods (FIFO, Real Lot Cost, Weighted Average Cost) in TAS 2 Stock Standard (Gökgöz, 2012: 157). Knowing the accounting policies of the enterprises is of great importance for the users of the financial statements to make accurate assessments about the financial status and activity results of the enterprises (Ulusan, 2007: 168).

If there is an accounting policy determined in TAS 8 Standard regarding a transaction or event belonging to an item in the financial statements, this accounting policy is applied (Gençoğlu, 2017: 6). In addition, if there is no accounting standard explanation or a relevant comment regarding the transactions or events of an item in the financial statements, the business management can develop a new accounting policy and apply this policy (CMB Serial: XI, No: 25, art. .467). The accounting policy newly developed by the entity should be reliable and appropriate to the needs of financial statement users. Here, reliability is; The accounting policy should be prepared in a way that reflects the financial position and financial performance of the business in a realistic way and the transactions reflect the economic essence of the events, and the information is objective and complete (TAS 8, paragraph 10).

2.1.2. Accounting Policy Change Concept

Principle of consistency of accounting policies; It expresses that the same accounting policies should be applied by the business for each period due to similar events, similar situations and transactions between periods (Gürdal, 2006: 3). Therefore, the chosen accounting policy should be applied consistently to all assets in a similar class, in accordance with the consistency principle of accounting. For example; A company that chooses an inventory valuation measure according to TAS-2 Stock Standard cannot value some of its stock using FIFO and some by using the real party cost method (Gökgöz, 2012: 157). However, there may be situations where businesses may change their accounting policies. In situations requiring policy changes, the comparability of financial statements should not be impaired. In this context, in which cases the accounting policy will be changed, which situations will not be considered as an accounting policy change, how the accounting policy changes will be applied, how the situations that require changes will be explained in the financial statements are explained in TAS-8. Change in business accounting policies; These changes can be made if they are required by a TAS/TFRS or if the changes to be made are reliable and appropriate to present the effects of transactions and events occurring in the business in a more useful and reliable way in the financial statements (TAS 8, paragraph 14). However, the application of a new accounting policy for transactions or events that are different from, or are non-existent or immaterial to, previous transactions or events due to their content are not called changes in accounting policies (TAS 8, paragraph 16). In case of a change in the accounting policies applied by the business, arising from the new (first time applied) changes in TAS/TFRS, changes are made in the accounting policies by considering the transition provisions in the relevant TAS/TFRS (Yükçü and Gönen, 2012:21). However, in the absence of such a transitional provision; The change in accounting policy must be applied retrospectively (TAS 8, paragraph 19). Here, what is meant by the retrospective application of the accounting policy change is; It is to go back as far as possible and make adjustments from the earliest period for all items affected by the change in accounting policy resulting from TAS/TFRS (Gençoğlu, 2017:6). The main adjustments made in the retrospective application of the change in the accounting policy made in order to comply with TAS/TFRS are the adjustments made to the ' past year profits ' item. Moreover, adjustments may be made to other items of equity (TAS 8, paragraph 26). If the enterprice; If it cannot fully apply retrospectively the changed accounting policy due to the new accounting standard, it applies this accounting policy prospectively. As a result, the effects of the previous period's adjustments on the items are not given due importance (Yükçü and Gönen, 2012: 21).

2.1.3. Retrospective Application of the Accounting Policy Change

The application of a new accounting policy to transactions, events and conditions by assuming that the said policy has been applied from the beginning is referred to as the "retrospective application of the accounting policy" (TAS-8, paragraph 5). Retrospective application of a change in accounting policy is not possible in some cases. The circumstances under which an accounting policy change cannot be applied retrospectively are clearly stated in paragraph 5 of TAS-8. These situations are; If the effects of retrospective application cannot be determined, assumptions must be made about what management's intentions may have been at that time, determining amounts requires significant estimates, and it is very difficult to distinguish clearly from other information.

If a financial reporting standard does not include transitional provisions and is applied for the first time or if an accounting policy change is made on an optional basis, the policy change is applied retrospectively (TAS-8, paragraph 19). In other words, if an accounting policy change without a transitional provision is applied for the first time or if the relevant change is applied voluntarily, the accounting policy change must be applied retrospectively. For example; It is an accounting policy change that requires an optional retrospective application for a company that uses the FIFO method to calculate its inventory costs, to use the 'weighted average cost' method as an inventory valuation method in order to provide more realistic information (Gökgöz, 2012: 159). Where a new accounting policy is applied retrospectively, it goes as far back as possible and applies that policy to comparative information for prior periods (TAS-8, paragraph 26).

2.1.4. Prospective Application of the Accounting Policy Change

The prospective application of the accounting policy change means that the relevant policy change is reflected in the financial statements by applying it to the transactions, events and conditions after the date of occurrence (TAS-8, paragraph 5). Prospective accounting policy is applied when it is not possible to apply (Since the accumulative effect of applying the accounting policy to all previous periods cannot be determined) the accounting policy retrospectively. In such a case, the portion of the accumulative adjustment to the asset and resource items of the balance sheet prior to this date is disregarded (TAS-8, paragraph 27). For example; An enterprise that has only detailed records of tangible fixed assets for the last two years and that has changed its accounting policy from the cost model to the revaluation model in the valuation of its tangible assets, will only be able to apply the retrospective application for the last 2 years (Gökgöz, 2012: 160).

2. 2. Accounting Estimate and Accounting Estimate Change Concept

2.2.1. Accounting Estimate Concept

Accounting estimation concept; it means estimating the value of many financial statement items because they cannot be determined exactly due to the uncertainties of the business activities. Estimates are made by making judgments based on current and reliable information. For example; When determining doubtful receivables, inventory impairment, fair values of financial assets and liabilities, useful lives of depreciable economic assets, and guarantee liabilities, estimation is required (TAS 8, paragraph 32). Therefore, the use of AEs forms an essential part of the financial statements (TAS 8, paragraph 33). AEs made have a significant impact on the reported financial position of the company (Ghosh and Siriviriyakul, 2019:2; Süer, 2021:25). Estimates represent approximate dimensions determined by certain conditions present at a given moment (Ionescu and Georgescu, 2014:47). Accounting estimates; the uncertainties that arise in the presentation of the activities performed, the lack of accuracy, the monetary control of the elements in the financial statements are the result of certainty (Cenar, 2012:52).

The responsibility of making the AEs in the financial statements rests with the management. The auditor is responsible for evaluating whether the estimates made by the management are reasonable (Kaplan and Reckers, 1995:27). AEs have gained a central role in the preparation of financial statements either due to the uncertainty of the economic environment or the intention of some managers to manipulate the financial data disclosed in the financial statements (Burcă, Nicolăescu and Drăguţ 2019:21). Because if the auditor does not evaluate whether the AEs made are reasonable, businesses can use this to their advantage. As a matter of fact, in the current regulations on auditing standards, it is stated that due to the high uncertainties in AEs, how AEs are handled in the audit should be explained through audit reports (Süer, 2021: 27).

In some cases, the estimation may need to be revised and rearranged (TAS 8, 2017: art.34). For example, in cases where there are changes in the conditions in which the estimation is made, new information is reached or new experiences are gained on the estimated subjects, the estimations must be updated (TAS 8, 2017: art.34).

2.2.2. Accounting Estimate Change Concept

The concept of accounting estimation changes is in TAS-8;

"An adjustment to the carrying amount of an asset or liability or the amount of periodic consumption of an asset by assessing the current state of assets and liabilities and the expected future benefits and obligations associated with them."(TAS 8, paragraph 5).

Changes in AEs may be made, but this does not mean that an error has been made and therefore has been corrected (TAS 8, paragraph 5). Adjusting an estimate is neither an error correction nor related to prior periods (TAS 8, 2018, paragraph 34). However, while changes in AEs affect the current period, they may also affect future periods (Gürdal, 2006: 8).

2.2.3. Prospective Application of Change in Accounting Estimate

Prospective application of the AE change; means that the relevant AE change is reflected in the current and future financial statements affected by the change (TAS-8, paragraph 5). In reflecting a change in the AE to the prospective financial statements; it is reflected to the financial statements prospectively by considering whether the change causes a change in assets and liabilities, whether it is related to the equity item and which periods it affects. According to this; a change in the AE; If there is a change that does not cause a change in assets and liabilities or is not related to an equity item, there are two situations. If the relevant change only affects the period in which the change was made, the profit or loss of the period in which the change was made; If the change affects the current period as well as future periods, it is included in the profit or loss of both the current period (where the change occurred) and future periods and reflected in the financial statements (TAS-8, paragraph 36). On the other hand, a change in the AE; If there is a change that causes a change in assets and liabilities or is related to an equity item, the related item (asset, liability or equity) is reflected in the financial statements by adjusting the book value in the period in which the change occurred (TAS-8, paragraph 37). Prospectively reflecting the effect of a change in the AE; means the application of the change to situations after the date it was made. A change in AE may have an effect not only on profit or loss for the current period, but also on profit or loss for both the current period and future periods. For example, a change in the estimation of the amount of doubtful receivables will be reflected in the financial statements in the current period, since it only affects the profit or loss of the current period. Conversely, a change in the estimate of the useful life of a depreciable economic asset will affect both the current period's depreciation charge and the depreciation charge of each future period (TAS-8, paragraph 37). Therefore, depending on the period affected by the change, it will be reflected in the financial statements either in the current period or in the future periods as income or expense.

2.3. Accounting Policy and Accounting Estimate Change Examples

It may be difficult in some cases to distinguish whether a change is a change in accounting policy or a change in AE. Where it is difficult to determine what type of change is, the relevant change is considered a change in the AE (TAS-8, paragraph 37). In this context, some of the examples from previous studies on accounting policy and AEs are included in this part of the study.

2.3.1. Accounting Policy Change Examples

As stated in the previous parts of the study, changes in accounting policy in accordance with TAS-8; It can be made if it is required by a TAS/TFRS or if the changes to be made are reliable and appropriate so that the effects of transactions and events occurring in the enterprise are presented in the financial statements in a more useful and reliable way (TAS 8, paragraph 14).

Some of the examples in the literature on accounting policy changes are given below:

EXAMPLE 1: Enterprise X has decided to purchase an ERP (Enterprise Resource Planning) program for the purpose of renewing and changing its accounting information systems. The enterprise using the weighted average method for stock valuation in the previous accounting system; With the ERP program, the policy change for stock valuation according to the moving average method is an accounting policy change made in the current accounting policy (Yükçü and Gönen, 2012: 23-24).

EXAMPLE 2: Entity X has set up an accounting policy as follows, within the scope of a business policy where profits are kept as much as possible in order to strengthen assets and fight competitors more strongly, instead of the basic policy of paying dividends and taxes. In this context, in order to ensure that more depreciation expense is recorded in the first years, the decreasing balance method in 60% of the useful life of economic assets; In the remaining 40%, the accounting policy has been changed by changing the method and switching to the straight-line depreciation method (Yükçü and Gönen, 2012: 24).

EXAMPLE 3: While X production enterprise gives 25% share to production costs from general production expenses in accordance with the Tax Procedure Law (TPL), it has decided to fully comply with International Financial Reporting Standards (IFRS) from 01.01.20X1. In this context, enterprise X has changed its accounting policy by recording the general production expenses directly instead of giving a share to the production costs from the expenses (Yükçü and Gönen, 2012: 27).

EXAMPLE 4: While enterprise X was accounting for construction and repair contracts spread over years based on the period in which the work was completed in the previous periods, it changed its accounting policy and used the 'percentage of completion' method (Gürdal, 2006: 4).

EXAMPLE 5: An entity that previously accounted for its investments in joint ventures using the proportionate consolidation method had to switch to the equity method with the issuance of TAS 28; It is an accounting policy change that should be made based on TAS/TFRS (Gökgöz, 2012: 158).

EXAMPLE 6: Kerevitaş Food Industry and Trade Inc. and its Subsidiaries, facilities, machinery and equipment that were revalued using the revaluation method in previous periods; In order to comply with the accounting policies, it has decided to evaluate using the cost method for the current period and beyond. In addition, the Group made changes in its accounting policy in 2017 in accordance with TAS-18. Accordingly, the Group has decided not to separate the financing element in the purchase and sale transactions realized under the general market conditions, and to separate the financing element in the transactions made outside the general market conditions. Changes in accounting policies are explained in the footnotes (Bal, 2019: 42).

2.3.2. Accounting Estimate Change Examples

In this part of the study, some of the examples from previous studies on accounting estimates are included.

EXAMPLE 1: KUZEY firm, working in the photography industry, purchased a photo printing machine with a useful life of 5 years, worth 1,000,000 TL, for its business on 02/12/20X1. The entity has depreciated for the press using the straight-line method for 2 years. With the emergence of a new printing machine with higher quality and faster working on the market, the business; decided to buy the new printing machine for 1,000,000 TL. With this; The company decided to sell the old printing machine to other companies for 200.000 TL. As a result of the transactions; the old printing machine was sold at a loss and the new printing machine was purchased. This situation, which creates a change in the estimation of the useful life of the printing machine; should be considered as a change in AEs (Yükçü and Gönen, 2012: 28-29).

EXAMPLE 2: Enterprise X purchased a device with a cost of 800,000 TL and a useful life of 10 years, with a scrap value of 60,000 TL. On 1 January 2008, after using the device for 3 years, the entity decided to review the useful life and scrap value of the device. After this review, the useful life of the device was determined as 4 years, and the scrap value was determined as 28,000 TL. This situation shows an accounting estimation change (Parlakkaya, 2010, 78-79).

EXAMPLE 3: Gulvar A.Ş., which is engaged in the production of weapons, sells the weapons it produces with a 1-year warranty. The entity estimates defects for weapons based on prior period data. Previous information shows that 85% of sikhs are faultless. The repair cost of the company, which produces an average of 5000 guns every year, in case of defects in the guns is 150 TL per gun. However, the entity found that 40% of the guns produced in 2012 were defective. Accordingly, it is expected that more claims will be made in 2013 from the enterprise. Therefore, the guarantee costs that will be reflected in the 2013 financial statements of the enterprise will be higher. This situation, which requires additional provisions to be made compared to previous years, is an accounting estimation change (Varıcı, 2014: 86-87).

EXAMPLE 4: The entity received a 2-year maturity promissory note in return for the sale of 60,000 TL to buyer A. As the business deteriorates gradually due to the illness of Buyer A, the business; The buyer anticipated that A would have difficulties in paying his debt. Therefore, as a precautionary measure, this receivable has been classified as doubtful trade receivables. With this; The company made a provision at the end of the year for this debt with a bond amount of 60.000 TL. In the future, it was learned that buyer A had recovered, and however, the enterprise decided to cancel the reserve it had reserved and add this amount to the current year's income (Varıcı, 2014: 87).

EXAMPLE 5: The company, which sells the washing machines it produces with a 5-year warranty, sold a washing machine worth 500,000 TL on 31.12.2012, that is, in 2012. Based on its past experience, the business has allocated a provision budget of 60,000 TL, taking into account the possibility that the washing machines it sold in 2012 will fail within the 5-year warranty period. At the end of 3 years, the business has realized that the cost under the warranty contract is 35,000 TL. Thereupon, he reviewed the warranty provisions again and found that most of the products sold had problems in the 4th and 5th years. Therefore, the entity has determined the warranty provision for the last two years as TL 40,000. This is an accounting estimation change that requires the company to make an additional provision of 15,000 TL (Gökgöz, 2012: 168-169).

3. USE OF ACCOUNTING ESTIMATES AND EXPLANATION OF CHANGES IN ACCOUNTING ESTIMATES IN THE FINANCIAL STATEMENTS

3.1. Use of Accounting Estimates

The value of many financial statement items is estimated by estimation as they cannot be determined precisely due to the uncertainties inherent in the business activities. Estimates are made by judgment using up-to-date and reliable information (TAS-8, paragraph 32). For example; it may be necessary to make estimations about doubtful receivables, obsolete inventories, useful lives of depreciable economic assets, and warranty liabilities (Yükçü and Gönen, 2012: 27). In the preparation process of the financial statements, an approximate amount is determined for the financial statement item, since precise measurements cannot be made regarding the amount of a financial statement item and, accordingly, definitive results cannot be obtained. The purpose here is to estimate the assumptions that determine the amount of income and expense that will affect the reported amount of assets and liabilities (Aktaş, 2013: 68). In accordance with the precautionary principle of accounting, it is necessary to make estimations due to uncertainties. As for the predictions to be made, assets and incomes are higher than they should be; taking care not to set liabilities and expenses lower than they should be is important (Gücenme Gençoğlu, 2017:4).

However, it is also important to present AEs and assumptions in a clear and understandable way in ensuring effective communication through financial reporting. Accordingly, regulations have been introduced in the current auditing standards to disclose how AEs, which may contain high uncertainty and subjective judgments, are handled in the audit, as a key audit matter, through audit reports (Süer, 2021: 25-27).

Süer (2021) determined by sectors that 46 of the 190 important AEs and assumptions announced in the 2020 financial statements of ISE 30 companies are reflected in the audit reports as key audit matters. Based on the study of Süer (2021), in this part of the study; Matters related to making and explaining AEs for account items with high uncertainty are outlined under the following headings within the framework of accounting standards:

- Provisions, contingent assets and liabilities

- Provision for expected credit losses
- Assumptions used in goodwill impairment testing
- Fair value measurement of investment properties
- Fair values of derivatives and other financial instruments
- Recoverability of deferred tax assets
- AEs for property, plant and equipment
- Fair value measurement of inventories
- Obligations arising from pension rights
- Revenue recognized for customer contracts
- Guarantee expense provision
- Delivery maintenance provisions

3.1.1. Accounting Estimates for Provisions, Contingent Assets and Liabilities

According to TAS 37, the provision is the debts that can be recognized in the financial statements; the conditional obligation is the debts that do not meet the conditions for being included in the financial statements or have not fulfilled the necessary conditions yet (Akça and Gönen, 2015: 92). Provisions, contingent liabilities and contingent assets are accounting information based on estimates (Yükçü and Yaşar, 2013: 1).

In order to be able to reflect the provisions, which are defined as liabilities with uncertain timing and amount in TAS-37, to be reflected in the financial statements, the amount of the liability must be able to be estimated reliably (TAS 37, paragraph 14). In very rare cases where a reliable estimate cannot be made, there may be an unrecognized liability. Such a liability is disclosed in the financial statements as a contingent liability (TAS 37, paragraph 26).

The amount to be recognized as a provision should be the most realistic estimate of the amount of expenditure that the entity will reasonably pay or transfer to third parties at the end of the reporting period in order to fulfill its obligation (TAS 37, paragraph, 36, 37). If the subject provision consists of many items, its expected value is estimated (TAS 37, paragraph 39). Risks and uncertainties are taken into account when reaching the most realistic estimate of the provision amount (TAS 37, paragraph, 42).

In cases where the effect of the time value of money is significant, the present value, that is, the discounted value, of the expenses estimated to be required to settle the obligation is used in determining the amount of the provision. In this context, the pre-tax rate reflecting current market assessments of the time value of money and risks specific to the liability is used (TAS 37, paragraphs 45, 46, 47). In the measurement and recording of provisions according to TAS 37; the best estimate is made by using the expected value method, the most probable result method and one of the present value methods (Ulusan, 2004: 206).

Provisions are reviewed and adjusted at the end of the reporting period to reflect the best available estimate at the time. If the possibility of outflow of resources providing economic benefits for the fulfillment of the obligation has disappeared, the provision is canceled (TAS 37, paragraph 59). Therefore, when it is understood later that a reserve has been overpaid, the surplus reserve must be cancelled (Yükçü and Yaşar, 2013: 8).

3.1.2. Accounting Estimates of Expected Credit Losses

Credit loss, in TFRS 9 Financial Instruments standard, as the present value of the difference between the contractual cash flows that will occur as they mature and the cash flows that the enterprise expects to collect; expected credit loss is defined as the weighted average of the expected default risk of credit losses. It is explained in the Appendix of the Standard that cash flows will be estimated over the expected life of the financial instrument and considering all contract terms.

In the credit loss approach, which is based on the timely and adequate reflection of credit losses in the financial statements, there is no precondition for the loss to occur, and credit losses are reported by taking into account the probabilities related to credit risk (Arslan ve Zaif, 2021: 145).

In regard to the TFRS 9, an enterprise evaluates the expected credit losses; a) an impartial amount weighed considering the agreed odds, b)the time value of the money and c) in relation to the estimates of past, present and future conditions taking the reasonable and supported information which can be gained at reporting time into consideration. (TFRS-9, paragraph 5.5.17.)

Measuring expected credit loss, the entity considers the maximum contractual term for which it is exposed to credit risk (TFRS-9, paragraph 5.5.19). In measuring the expected credit loss; three approaches are used: the general approach, the simplified approach, and the credit-adapted approach. (Arslan ve Zaif, 2021: 147). For a company that does not have a risk monitoring system and does not make a risk assessment, the simplified approach is the most appropriate method for determining expected credit losses on trade receivables. If this approach is determined, a loss allowance is made in the form of “lifetime expected credit losses”. In this context; the grouped weights and credit risk ratios of overdue and overdue receivables are determined. Established expected credit losses are discounted at the effective interest rate as of the reporting period. (Gökgöz, 2019: 171-172).

3.1.3. Accounting Estimates for Impairment of Goodwill

The difference between the fair value of goodwill and its carrying amount is called goodwill impairment (Syzdykova, 2016: 27). According to TAS 36 Impairment of Assets Standard; an impairment test at least once a year, if there are indications of impairment, it is necessary to determine the value by applying an impairment test more than once a year. (Ertan ve Gücenme Gençoğlu, 2013:4). In accordance with TAS 36 Impairment of Assets, when an asset is impaired, financial statements are adjusted for impairment. Impairment test is performed to determine the realized impairment. In the impairment test, the book value of the asset and its recoverable amount are compared. If the recoverable amount is less than the book value, it indicates loss of value. Recoverable amount; is the higher of the asset's fair value (less disposal costs) and its value in use. Value in use represents the present value of future cash flows expected to be generated from the asset. In this case, use value; it is calculated both by estimating future cash flows and by determining the discount rate that discounts cash flows to present value. (Esen ve Perek, 2009:145-150). In estimating the discount rate, as a starting point; weighted average cost of working capital, marginal borrowing rate and other market borrowing rates are used (TAS 36, paragraph A17).

Difficulties in identifying cash-forming units, estimating cash flows, and determining the appropriate discount rate drew attention to goodwill impairment tests (Syzdykova, 2016: 25). In particular, considering the assumptions and estimations used in the goodwill impairment test, such as discount rates and growth rates, the goodwill impairment test and its disclosure in the footnotes are of great importance for information users. (Yaşar ve Çetin, 2022: 129). Companies that test for goodwill impairment are required to disclose in the footnotes to their financial statements the estimations and assumptions they used while applying the relevant tests, as explained in TAS 36 paragraph 134 (Akbaba, 2021: 146). Studies in the literature show that there are deficiencies in terms of compliance with the issues that need to be disclosed in the financial statements related to goodwill impairment tests. It is stated that this non-compliance is due to the time consuming, costly, complex and subjective judgments of applying and reporting impairment tests (Akbaba, 2021: 160).

In order to test whether goodwill is impaired, companies perform a goodwill impairment test for each cash-generating unit and the assumptions and estimates used from the tests are explained in the footnotes of the financial statements. In this context, factors such as the discounted value of the cash flows expected to be obtained, the projections of years for the goodwill impairment test, the fixed growth rate, and the weighted capital cost ratio are estimated.

3.1.4. Accounting Estimates for Investment Properties

Investment properties; it refers to assets held by businesses to earn rental income or capital gains, or both, that generate cash flows that are largely independent of other assets owned by the business (TAS-40, paragraph 7). Investment properties, as can be understood from the definition, are assets that are not used in the production or sale of goods and services of enterprises (Çetinkaya, 2017:74). Investment real estate properties examples includes lands held for long-term capital gains, lands whose future use has not yet been decided, and real estate under construction or development to be used as investment property in the future (TAS-40, paragraph 8).

A real estate property is accounted for as investment property if it is probable that future economic benefits will flow to the entity and the cost can be measured reliably (TAS-40, paragraph 16). Investment property is initially measured at cost and recognized in the financial statements (TAS-40, paragraph 20).After the first recording, it can be measured using either the fair value or cost method (Gücenme Gençoğlu, 2017: 21). Even if the enterprise has chosen the cost method in the initial recognition, the fair values of the investment properties should be disclosed in the footnotes of the financial statements (Çetinkaya, 2017: 76). Gain or loss arising from the change in fair value of investment property is recognized as profit or loss in the period in which it occurs (TAS-40, paragraph 35).

Since the calculation of the fair value of an investment property is based on the market and its calculation is based on estimates, it is inevitable that it will have some problems in terms of reliability. In this context, it is necessary to specify which method and which assumptions are used to determine the fair value. For example; It should be stated that a business that determines the fair value by using the income discount method, which discount rate it uses, and which assumptions are used to make the expected rental returns (Çetinkaya, 2017:70-76).

Valuation of investment properties is among the subjects that can be reported as a key audit matter in independent audit reports, as it contains important estimates and assumptions. In this context, the valuation methods used for real estates and the fair values of real estates determined within the framework of the appraisal reports are explained in the footnotes of the financial reports.

3.1.5. Accounting Estimates of Fair Value of Derivative and Other Financial Instruments

Derivative financial instruments; generally, they are financial instruments that create value depending on an interest rate, product price or exchange rate and create certain rights and obligations to the owner for the purposes of hedging, speculation and arbitrage by individual and institutional investors (Aygören and Kurtcebe, 2019:3).

The principles of presenting financial instruments as debt and equity and offsetting financial assets and liabilities are explained in TAS 32 Financial Instruments to complement TFRS 7 and 9 (TAS 32, paragraphs 2 and 3). In addition, accounting and measurement of financial instruments are explained in TAS 39. Therefore, information on the presentation and disclosure of financial instruments is in TAS 32 and TFRS 7; information on accounting and measurement principles are included in TAS 39 and TFRS 9 (Fındık, 2016: 63).

It is an important problem that which value will be used in the first recording of derivative financial instruments and how they will be valued in the following periods (Aygören and Kurtcebe, 2019:6). According to TFRS 9, when an entity recognizes a financial asset for the first time, the Standards 5.1.1 and 5.1.3. measures the financial asset in accordance with paragraphs (TFRS 9, paragraph 3.1.1.). Initial recognition for financial assets is made at fair value (excluding trade receivables) (Fındık, 2016: 67). In some cases, the initial measurement also takes into account transaction costs attributable to the acquisition or issue of financial assets. In this case, transaction costs are either added to or deducted from fair value (TFRS 9, paragraph 5.1.1.). However, if the fair value of the financial asset or liability at initial recognition is different from the transaction price, its fair value is; a) by justifying an identical asset or liability at a quoted price in an active market; b) in all other cases, account for the deferred difference (TFRS 9 paragraph B5.1.2A). The measurement of financial assets in their subsequent recognition is; It is realized at amortized cost by reflecting the change in fair value to other comprehensive income or profit/loss (TFRS 9, paragraph 5.2.1.).

Due to the importance of AEs for derivative financial instruments, companies subject to independent audit may include derivative financial instruments as a key audit matter. For example; Türk Telekom Inc. Co. one of the key audit issues included in the independent audit report published within the scope of the 2021 financial reports is derivative financial instruments and hedging policy. In the relevant audit report; it has been stated that valuation techniques, assumptions and estimations are used in determining the fair value of derivative financial instruments and explained as a key audit matter due to uncertainties that may arise from estimations.

3.1.6. Accounting Estimates of Recoverability of Deferred Tax Assets

TAS 12 Income Taxes Standard is important because it is used in accounting for income taxes and in accounting for deferred tax assets. Therefore, in the purpose part of this standard, it is stated that this Standard also regulates the accounting of deferred tax assets and unused tax benefits. TAS 12 Income Taxes Standard is important because it is used in accounting for income taxes and in accounting for deferred tax assets. Therefore, in the purpose part of this standard, it is stated that this Standard also regulates the accounting of deferred tax assets and unused tax benefits.

When the audit reports of companies explaining the recoverability of deferred tax assets as a key audit issue are examined; they often appear to act on the grounds that uncertainties in estimating future taxable profits and estimating recoverability involve significant management judgment. For example; Batı Anadolu Cement Industry Co. Ltd., regarding the key audit that it announced in its 2020 independent audit report; they explained that deferred tax assets are estimated based on assumptions and in this assessment, future business plans and the expiry dates of unused losses are taken into account. In this context; the maturity dates and expiry estimates of financial losses with and without deferred tax assets are disclosed in the footnote of the financial statements.

3.1.7. Accounting Estimates on Tangible Fixed Assets

After initial recognition, tangible assets are measured using either the cost model (cost less accumulated depreciation and any accumulated impairment losses) or a revaluation model (the fair value at the revaluation date less accumulated depreciation and accumulated impairment losses) (TAS 16, Paragraphs 29, 30, 31). When tangible fixed assets are revalued, the entire class of tangible assets to which that asset belongs (for example, patch, land and buildings, machinery, ships, etc.) is also revalued (TAS 16, paragraph 36, 37).

The residual value and useful life of an asset are reviewed (at a minimum) at the end of each accounting period. In this case, if the expectations differ from the previous estimates, they are accounted for as a change in the AE in accordance with TAS 8 (TAS 16, paragraph 51). Similarly, the depreciation method applied to the related asset is reviewed at the end of each accounting period to see if there is a significant change in the expected consumption pattern regarding the future economic benefits of the asset. In case of a material change, the depreciation method is used to reflect this change and the change is accounted for as an AE change under TAS 8 (TAS 16, paragraph 61).

When making estimations about tangible fixed assets, businesses make estimations about the residual value of the tangible fixed asset, the estimated cost of the improvement works for the tangible fixed asset, the useful life of the tangible fixed asset and the depreciation methods used for the tangible fixed assets. AEs made for tangible fixed assets are reviewed in accounting periods and possible changes in estimates in line with the decisions made are accounted for as AE changes. The nature and effects of changes in AEs are disclosed to the public in accordance with TAS 8 (TAS 16, paragraph 76).

There may be some uncertainties due to estimations on issues such as cost determination of tangible fixed assets, determination of their useful life and residual value, determination of whether they are usable at the end of the period. Therefore, one of the key audit issues included in the company's independent audit reports is on tangible fixed assets and their valuation. For example; one of the key audit issues included in the 2020 audit report of Kerevitaş Gıda Inc. Co. was the revaluation of tangible fixed assets. The audit firm has stated that it has identified the revaluation model for property, plant and equipment as a key audit matter due to its complexity and involving significant judgment and assumptions. When the company's financial statement footnote explanation is examined; it is seen that revaluation studies were made by valuation companies, the arm's length method and the cost method were used in the valuation studies, and the level 2 fair values of the tangible fixed asset segments were calculated.

3.1.8. Accounting Estimates in Measuring Fair Value of Inventories

According to TAS 2 Stocks Standard; in the valuation of stocks, valuation should be made over the lower of cost value and net realizable value of stocks. If the net realizable value of the inventories is lower than the cost value, it is stated that a provision for stock depreciation should be reserved (Uyar, 2009: 136). Estimation of the net realizable value of inventories is based on the most reliable evidence at the time of estimation regarding the amount expected to be received from inventories (TAS 2, paragraph 30).

TAS 2, as a rule, includes all direct raw material and direct labor costs; on the other hand, it is based on the normal cost method, in which the general production expenses are charged to the product cost according to the capacity used (Boyar and Güngörmüş, 2006: 84-85). According to TAS 2 Standard, the cost system component; actual cost method + normal cost method or standard cost method + normal cost method can be applied (Güngörmüş and Boyar, 2010: 110).

Among the explanations made in the financial statements regarding inventories; there are methods such as the cost calculation method of stocks, inventory measurement policy, total book value of inventories, book value of inventories less selling costs, inventory amount reflected to financial statements as expense during the period (TAS 2, paragraph 36).

One of the key audit issues that are frequently included in the independent audit reports of companies is related to the valuation of stocks and the provision for stock depreciation. Determining the inventory cost method and determining the inventory impairment can often be explained as a key audit matter as it may involve complex calculations and estimations. For example; One of the key audit issues included in Arçelik Inc. Co.2020 audit report was on the issue of provision for stock depreciation.The reason for including such a key audit matter is; rapid technological developments, macroeconomic factors, and the calculation of the inventory impairment provision include the estimations and assumptions of the management. In this context, the Company has included explanations regarding the distribution of the provision for inventory impairment by inventory item and the movements of the provision for inventory impairment in the footnote of the financial statements.

3.1.9. Accounting Estimates for Liabilities Arising from Pension Rights

One of the financial statement items that may require an AE may be related to obligations arising from pension rights. Companies may act on various assumptions and estimations while making the calculations required by the relevant regulations within the scope of their employees' retirement plans. For example; when the financial reports of Şekerbank Inc. Co. for the year 2020 are examined, it is seen that one of the subjects included as a key audit subject in the independent audit report is related to retirement plans.In this context, in the valuation of the Company's Pension Fund liabilities; it is understood that it makes assumptions about transferable benefits, discount rates, future salary increases, demographic assumptions, inflation rate estimates and the determination of appropriate assumptions regarding the impact of any changes in private pension plans. It has been stated that these assumptions and calculations are based on the assumptions set forth in the law by an independent actuary and that the assumptions are reviewed annually. In the supervision of the retirement plans related to the 2020 financial statements of Şekerbank Inc. Co.; the actuarial assumptions, methods and legal regulations used in the calculations are among the matters checked to see if there is any change compared to the previous period.

3.1.10. Accounting Estimates of Revenue from Customer Agreements

The principles to be applied by businesses in reporting the revenue arising from a contract with the customer are explained in TFRS 15 Revenue from Contracts with Customers Standard.

While the business determines the transaction price; considers variable price, limitation of variable price estimates, existence of a significant financial component in the contract, non-cash value, consideration payable to the customer (TFRS 15, paragraph 48). In this context, it assumes that the goods or services will be transferred as promised in the contract, that the contract will not be cancelled, renewed or changed (TFRS 15, paragraph 49). If the promised consideration in the contract includes a variable amount, the entity estimates the amount it will be entitled to in exchange for the transfer of promised goods or services to the customer (TFRS 15, paragraph 50). The entity estimates variable consideration using the method it best estimates the consideration to be earned (the expected value or the most probable amount method) (IFRS 15, paragraph 53).

The entity measures the non-cash value at fair value when determining the transaction price for contracts for which it undertakes to pay non-cash (non-cash) consideration (TFRS 15, paragraph 67).

If the entity cannot directly observe the stand-alone selling price (the price that would be charged if a good or service is sold separately to the customer), stand-alone selling price; estimates taking into account all predictable information (TFRS 15, paragraph 78). Among the methods that can be used in this estimation; there are adjusted market valuation approach, expected cost plus profit approach, balance approach (TFRS 15, paragraph 79).

An entity updates a significant change in the period during which the entity expects to transfer the goods or services to which it relates to the customer and accounts for it as a change in estimate in accordance with TAS-8 (TFRS 15, paragraph 100).

Revenue recognition is one of the most frequently cited key audit issues in companies' independent audit reports. For example; One of the key audit issues included in the 2020 audit report of Netaş Telecommunication Inc. Co. was the accounting of revenue. The firm has identified revenue as a key audit matter because of the complexity of commercial contracts, management's judgment in choosing the accounting basis for each case, and management's estimations being effective in updating the scope and price of the contract due to contract changes. When the company's financial statement footnote explanation is examined; it is seen that the details of the revenue amount as of the performance obligations and the fulfillment times of the performance obligations are disclosed.

3.1.11. Accounting Estimates for Warranty Expenses Provisions

Guarantee expense provisions are one of the types of provisions that are frequently encountered in practice and included in TAS 37 (Yıldırım and Karanlık, 2008:116).

Warranty expense provisions are determined in accordance with TAS 37 Standard. Companies are required to estimate the provision for warranty expenses in the most realistic way according to TAS 37 and add them to their costs in a balanced way (Yıldırım and Karanlık, 2008:120). It is possible to give an example of warranty expense provisions as follows (Akça and Gönen, 2015:99-100):

Example: X company, which produces motorcycles and gives 2 years warranty on its sales, total motorcycle sales at the end of 2012 amounted to TL 3,000,000. Based on its past experience and statistical data, the company has determined that the warranty expense incurred during the warranty period is 4% of its total sales. According to this; the business estimates that 30% of the warranty expenses will be incurred in the first year and expects the remainder to occur in the second year. However, motorcycles sold in January 2012 may fail and be repaired under warranty within the same year (Akça and Gönen, 2015:99-100). Therefore, the warranty expense provision may require estimation and accounting for new situations to occur.

Cebeci and Cavlak (2018), excluding the banking sector, examined the distribution of the provisions made by ISE 30 companies between 2012 and 2014 within the scope of TAS-37 and TAS-19 in their financial statements, in what form and in what amount, according to sectors. In this context, they determined that warranty expense provisions are one of the three items with the highest amount and ratio among the short-term provisions set aside by the related companies (Cebeci and Cavlak, 2018:122).

The fact that the calculation of the warranty expense provision requires estimation may require the auditors to disclose it as a key audit matter in their audit reports, depending on their materiality. For example; one of the key audit issues included in the 2020 audit report of Ford Automotive was the warranty expense provision. Reasons for the company to include such a key audit matter include; the high amount of the carrying amount as a liability in the statement of financial position, the calculation of warranty costs per vehicle within the framework of previous warranty claims and the experience of the technical department, and the inclusion of exchange rate estimates in the calculation of warranty costs were effective.

3.1.12. Accounting Estimates for Delivery Maintenance Provisions

Cebeci and Cavlak (2018), excluding the banking sector, examined the distribution of the provisions made by ISE 30 companies between 2012 and 2014 within the scope of TAS-37 and TAS-19 in their financial statements, in what form and in what amount, according to sectors.In this context, they determined that delivery maintenance provisions are among the items with the lowest amount and ratio among the short-term provisions set aside by the related companies (Cebeci and Cavlak, 2018:122).

Delivery maintenance provisions are few in number and may be among the key audit issues disclosed by the auditors in relation to the industry. For example; In the 2020 audit reports of Pegasus Airlines delivery maintenance provisions are explained as a key audit matter. The company has set aside a delivery maintenance provision, which is calculated over the present value of the estimated future cost, taking into account the actual flight hours and the number of flights. In this context, the delivery maintenance provision calculation; made assumptions based on the usage rates of the aircraft, the expected cost and expected time of heavy maintenance, the condition of the aircraft, the life of the parts with limited economic life of the aircraft.

3.2. Disclosure of Accounting Estimate Changes in Financial Statements

Depending on the effect of accounting estimation changes on the financial statements, they are reflected in the relevant financial statements and explained in the financial statements. Disclosure of AE changes in financial statements; Turkish Accounting Standards have been prepared within the scope of Financial Reporting Standard for Large and Medium-Sized Enterprises (LMSE FRS) and Financial Reporting Standard for Small and Micro Enterprises (SME FRS), which is still in draft form. In this context, the way in which accounting estimation changes should be reflected and explained in the financial statements is stated in the following parts of the study, within the framework of the said standards.

3.2.1. Reflecting the Effects of Accounting Estimate Changes in TAS-8 to the Financial Statements and Explaining them in the Financial Statements

The effect of the change in the accounting estimate is evaluated prospectively by associating with profit or loss and reflected in the financial statements (Ömürbek and Öztürk, 2013:7). The intention in the forward-looking evaluation and reflection on the financial statements mentioned herein; It is the application of the change in the AE to the transactions, events and conditions after the date it is made (TAS 8, 2017: article 38).

In reflecting a change in the AE to the prospective financial statements; it is reflected to the financial statements prospectively by considering whether the change causes a change in assets and liabilities, whether it is related to the equity item and which periods it affects. In this context, according to TAS-8; if changes in AEs affect assets, equity and liabilities and cause changes in these items, the book values of these items should be adjusted in the relevant period (TAS 8, 2017, paragraph 37). Regarding this issue, the relevant article of the TAS 8 standard was amended in 2018, and the 37th article of the standard was amended as follows (TAS 8, 2018, paragraph 37):

> *"To the extent that a change in an accounting estimate gives rise to changes in assets and liabilities, or relates to an item of equity, it shall be recognised by adjusting the carrying amount of the related*

asset, liability or equity item in the period of the change."

Therefore, a change in the AE; if there is a change that does not cause a change in assets and liabilities or is not related to an equity item, there are two situations. If the relevant change only affects the period in which the change was made, the profit or loss of the period in which the change was made; if the change affects the current period as well as future periods, it is included in the profit or loss of both the current period (where the change occurred) and future periods and reflected in the financial statements (TAS-8, paragraph 36). On the other hand, a change in the AE; if there is a change that causes a change in assets and liabilities or is related to an equity item, the related item (asset, liability or equity) is reflected in the financial statements by adjusting the book value in the period in which the change occurred TAS-8, paragraph 37).

Prospectively reflecting the effect of a change in the AE; means the application of the change to situations after the date it was made. A change in AE may have an effect not only on current period profit or loss, but also on profit or loss for both the current period and future periods. For example, a change in the estimation of the amount of doubtful receivables will be reflected in the financial statements in the current period, since it only affects the profit or loss of the current period. Conversely, a change in the estimate of the useful life of a depreciable economic asset will affect both the current period's depreciation charge and the depreciation charge of each future period (TAS-8, paragraph 37). Therefore, depending on the period affected by the change, it will be reflected in the financial statements either in the current period or in the future periods as income or expense.

Provisions regarding the disclosure of accounting estimation changes in financial statements within the scope of TAS/TFRS are included in articles 39 and 40 of the current version of TAS-8. According to this; in the event of an AE change, the entity must disclose the nature and amount of the AE change that has had an effect in the current period or is expected to have an effect on the future period. If the effect of the change in AE on future periods cannot be estimated by the entity, this effect is not disclosed (TAS-8, paragraph 39). However, in such cases, it should be explained that it is not possible to estimate the effect of the change in AE on future periods (TAS-8, paragraph 40).

3.2.2. Reflecting the Effects of Accounting Estimate Changes in LMSE FRS to the Financial Statements and Explaining them in the Financial Statements

The current version of the Financial Reporting Standard for Large and Medium-Sized Enterprises (LMSE FRS) was published by The Public Oversight, Accounting and Auditing Standards Authority in the Repetitive Official Gazette dated 30 March 2021 and numbered 31439. The purpose of the Standard is a financial reporting standard that provides information on how businesses that are subject to independent auditing but do not apply Turkish Financial Reporting Standards (TFRS) will make their financial reporting (LMSE FRS, Article 1).

The third chapter of LMSE FRS, under the title of "Accounting Policies, Estimates and Errors"; provisions regarding selection, application and change of accounting policies, changes in accounting estimates and correction of errors are included.

As in TAS-8, LMSE FRS states that the effects of changes in AEs should be included in the profit or loss of the relevant periods and recorded prospectively (LMSE FRS, Article: 3.21). According to this; a change in the AE; a change that does not result in a change in assets and liabilities or is not related to an item of equity; a) if it affects only the period in which the change is made, the profit or loss of the period in which the change is made, b) the ones that will affect the future periods as well as the period in which the change is made are included in the profit or loss both in the current period and in the future periods and reflected in the financial statements (LMSE FRS, Article: 3.20). On the other hand, a change in the AE; if there is a change that causes a change in assets and liabilities or is related to equity items, the book values of the related assets, liabilities or equity items in the period in which the change occurred are corrected and reflected in the financial statements (LMSE FRS, Article:3.21).

Provisions regarding the disclosure of accounting estimation changes in financial statements within the scope of LMSE FRS are explained in article 3.22. in the third section of the current version of LMSE FRS. According to this; the nature of the change in AEs and its effects on the assets, liabilities, income and expenses of the current reporting period and its possible effects on the financial statements in the future period or periods should be included in the footnotes of the financial statements (LMSE FRS, Article: 3.22).

3.2.3. Reflecting the Effects of the Change in Accounting Estimate in SME FRS to the Financial Statements and Explaining them in the Financial Statements

In the 5th Section of the draft text of the Financial Reporting Standard for Small and Micro Enterprises (SME FRS); The title of "Accounting Policies, Estimates and Errors" is included. 5.12 and 5.16 of the Draft Standard. between paragraphs and 5.27. In this paragraph, explanations regarding the "Changes in Accounting Estimates" are given. As in TAS-8 and LMSE FRS, it is stated in SME FRS (paragraph 5.16) that the effects of changes in a AEs on profit or loss will be included in the financial statements prospectively.

According to the draft text of SME FRS; those that affect only the period in which the AE is changed, to the profit or loss of the period in which the change is made; changes that will affect future periods as well as the periods in which the change was made are reflected prospectively in the profit or loss of both the period in which the change was made and the future periods (SME FRS Draft, paragraph 5.16). In the aforementioned Draft Standard; it is stated that the nature of the change in AEs and the effects of the change in the current reporting period on the assets, liabilities, income and expenses should be explained (SME FRS Draft, paragraph 5.27).

4. LITERATURE REVIEW

The results of the literature review on the studies on accounting estimation changes show that the studies conducted within the scope of this thesis are limited in number. In this context inculuded the results of the literature review of this thesis study in this section; The results of the literature review regarding the studies in the national and foreign literature that may be related to the accounting estimation changes are given as a summary.

4.1. National Literature Survey

The results of the literature review regarding the national studies carried out in the sample of Turkey regarding the accounting estimation changes are summarized below:

In the study conducted by **Akça and Gönen (2021)**; Based on TAS 37 Provisions, Contingent Liabilities and Contingent Assets. Based on this standard, it is explained in which cases provisions, contingent liabilities and contingent assets should be presented in the financial statements and footnotes. In addition, evaluations were made in terms of tax legislation and the study was supported with examples**.** The study clarifies the issues related to the measurement, presentation and recording of provisions, contingent liabilities and contingent assets in TAS 37 standard. Based on the examples included in the study, it has been determined that legal action should be initiated in the provisioning process made in accordance with the tax legislation, but such a condition is not sought in the International Financial Reporting Standards.

In the study conducted by **Akgün (2009**); TAS 36 Standard for Impairment of Assets has been comprehensively handled. Explanations regarding the concepts and valuation principles in TAS 36 have been made, problems that may arise in practice have been identified, and solutions have been developed accordingly. With this; impairment of assets, goodwill issues are examined and sample applications related to related issues are included. In addition, TAS 36 Standard for Impairment of Assets has been evaluated in terms of Uniform Chart of Accounts and Turkish Tax Legislation, and the relevant subject has been explained with examples.

In the study conducted by **Aktaş (2013)**; Changes and errors in accounting policies and AEs have been evaluated in terms of International Financial Reporting Standards. In the study; Accounting policy preferences, accounting policies, changes in AEs and errors of Istanbul Stock Exchange companies are discussed.

In the study conducted by **Ayboğa and Aslanoğlu (2002)**; The issue that the retail sales method is not included in the Tax Procedure Law has been examined. In the study; It has been concluded that the retail sales method, which is thought to affect the collection of receivables of the enterprises, should be included in the Tax Procedure Law. Thus, it was thought that the financial statements prepared by the enterprise would be more realistic.

In the study conducted by **Bal (2019)**; The accounting policy preferences and practices of the companies within the scope of the research and their explanations in the footnotes of the financial statements within the scope of TAS-8 were examined. In the study; A follow-up study of Aktaş (2013) was carried out and it was examined whether there was an improvement compared to the previous situation. The financial statement footnotes of a total of 156 companies in the manufacturing sector traded in the ISE for the years 2012 and 2017 were examined, and the financial statement disclosures within the scope of TAS-8 were evaluated. Thus, the results obtained in the study were compared with the results obtained in the Aktaş (2013) study. Research results; It has been observed that there is no change in the selection of stock valuation method and depreciation method of the companies in the sample according to years. In addition, it has been shown that there is an increase in the preference of the fair value method, and there are companies that make the disclosures that are required under TAS-8, but do not make any disclosures.

In the study conducted by **Çetinkaya (2017)**; The methods used in the valuation of investment properties have been determined. As a result of the use of these related methods, it has been revealed how the financial statements of the relevant institutions are affected. In this context, investment properties in the financial statements of the real estate investment trust companies operating in Turkey subject to independent audit within the 8-year (2009-2016) period, the methods used in the valuation of investment properties, the effect of changes in the valuation method on previous periods, the effect of valuation differences on the income statement were examined. . In the study; It has been observed that valuation of investment properties using the fair value method has a positive effect on the financial statements of real estate investment trusts. In addition, it was determined that this method was preferred especially after 2014.

In the study conducted by **Gökgöz (2012)**; It dealt with the rules related to the selection of accounting policies of the enterprise, deciding which AEs to apply, revision of accounting policies and AEs, and correction of accounting errors. In addition, there is information on how the Turkish Accounting Standard 8 Accounting Policies, Changes in Accounting Estimates and Errors standard, which determines the methods, will be applied by the enterprises.

In the study conducted by **Gücenme Gençoğlu (2017)**; Comparison of the Financial Reporting Standard for Large and Medium-sized Enterprises (LMSE FRS) with the Turkish Accounting Standards (TAS) and Turkish Financial Reporting Standards (TFRS) on the basis of basic issues and their differences are revealed. In the study, the standards within the scope of LMSE FRS and used by all businesses were selected and comparisons were made with the full set standards. According to this; It has been stated that LMSE FRSs are generally compatible with TAS/TFRS and are written in a plain language, but there are some differences between LMSE FRS and full set standards. In this context, it has been stated that there are differences with the full set in terms of the format of the statement of financial position, statement of profit and loss and statement of changes in shareholders' equity in LMSE FRS, where the concept of comprehensive profit is not used. However, it has been revealed that while a cost-based financial reporting principle is introduced for medium-sized enterprises in general, while the fair value method is preserved in the measurement of financial statement account items for large enterprises, some additional obligations are introduced.

In the study conducted by **Gürdal (2006)**; in the financial statements of the enterprise Issues such as changes in accounting policy, changes in accounting estimates and correction of errors made have been examined and compared within the scope of Turkish Accounting Standard 8 (TAS-8) and the 19th part of the CMB's Communiqué Serial: XI, No: 25. In the study; It has been seen that the regulation made with TAS-8 brings innovations to accounting practices, but it will be difficult for businesses to make retrospective corrections. It has also been stated that there are some differences with TAS-8 since the CMB's Communiqué does not include the latest changes in International Financial Reporting Standards. In addition, it has been suggested that providing flexibility to the enterprises in the CMB regulation and allowing retroactive application and not making corrections (in the form of not applying if it is excessively costly) will bring convenience in terms of implementation.

In the study conducted by **Mert and Güleryüz (2015)**; Auditing procedures of AEs and the actions to be taken against the risks of material misstatement arising in the application of these procedures and additional verification procedures have been evaluated with application examples within the framework of Independent Auditing Standard 540 (IAS-540).

In the study conducted by **Ömürbek and Öztürk (2013)**; The changes in the accounting policies and accounting estimates of the companies in the ISE 100 index within the scope of TAS-8 and the effects of the changes on the financial statements of the companies are examined. Study results; It has been shown that 22% of the ISE 100 companies have made changes in their accounting policies, the changes have affected the financial statements of 50% of the companies, and the most common policy change is the classification change. In addition, it has been observed that 9% of the sample changes in accounting estimates and 78% of the changes in accounting estimates have an effect on the financial statements.

In the study conducted by **Parlakkaya (2010)**; The application principles of the TAS-8 standard are presented. In the study, it is stated that the application of the said Standard will increase the validity and reliability of the financial statements, and will enable comparisons with the financial statements of the previous period and other companies.

In the study conducted by **Süer (2021)**; The interaction between significant AEs in the financial statements and key audit matters is discussed. In this context, the extent to which the important estimates and assumptions disclosed in the 2020 year-end financial statements of ISE 30 companies are reflected in the key audit issues in the independent auditor's reports has been examined. In the Study; It has been concluded that 24% of the significant AEs and assumptions of ISE 30 companies are considered as key audit matters, and 71% of the key audit matters are disclosed as AEs and assumptions in the footnotes of the financial statements.

In the study conducted by **Tuğay (2013)**; In accordance with TAS 16 Tangible Fixed Assets Standard and tax laws, depreciation practices regarding tangible fixed assets have been evaluated and their differences have been revealed. In the study; It has been determined that there are differences between TAS 16 standard and tax laws in terms of depreciation rate, duration, method and applications used in depreciation. The most important of the differences in the standard; It is stated that the residual value is taken into account in the depreciation calculation, the restricted depreciation application is adopted and the production amount method is used in the depreciation calculation. In the study, it has also been suggested that the revision of the regulations in the tax laws in a more appropriate manner to the accounting standards will provide convenience to the users of the financial statements.

In the study conducted by **Varıcı (2014)**; Within the scope of the financial reporting standard, information about the AEs was given and a detailed explanation and evaluation of the AEs was made within the scope of International Auditing Standard 540.

In the study conducted by **Yaşar and Çetin (2022)**; Explanations on estimations and assumptions related to goodwill impairment testing and audit procedures have been reviewed. In the study, in which the content analysis method is used, the 2020 year-end financial statements and independent audit reports of 79 companies in Stock Exchange Istanbul that indicate the goodwill amount in their balance sheets were examined. Study results; showed that there are deficiencies in terms of compliance with the disclosure requirements in TAS-36 regarding the goodwill impairment test. In addition, it has been determined that companies that disclose goodwill impairment as a key audit matter are more likely to comply with the disclosure requirements specified in TAS-36.

In the study conducted by **Yükçü and Gönen (2012)**; Turkish Accounting Standards 8 Accounting Policies, Changes in Accounting Estimates and Errors Standard is explained through various examples in order to ensure better understanding by accounting circles. In the study; It has been demonstrated with the help of examples that the policy change should be in the form of a 'footnote', the change in the forecast should be in the form of 'additional entry' and the errors should be in the form of 'restatement of the financial statements'.

4.2. Foreign Literature Survey

The results of the literature review regarding the studies in the foreign literature related to the accounting estimation changes are summarized below:

In the study by **Valentin, Cristina and Daniel (2019)**; Some issues related to the use of accounting estimates in financial reporting are discussed. In this context, how to distinguish between changes in accounting estimates and changes in accounting policies and how to determine the differences between them are evaluated. In addition, accounting estimation changes and how accounting policy changes affect the financial statements are also discussed.

In the study by **Ghosh and Siriviriyakul (2019)**; It has been investigated whether companies have strategically changed their accounting estimates in earnings management. In addition, it has been investigated whether these changes represent changes in the fundamental principles of companies with financial problems or risks that update their future expectations regarding future expectations due to operational changes. In the study, two conflicting hypotheses about changes in accounting estimates were examined. These hypotheses; opportunism hypothesis and risk hypothesis. In the called opportunism hypothesis, it is argued that companies opportunistically change their accounting estimates to manipulate their earnings; In the risk hypothesis, it is claimed that companies with changes in accounting estimates may be more risky than other companies.

In the study conducted by **Ionescu and Georgescu (2014)**; The subject of estimation and valuation in accounting is discussed. The authors noted that the issue of estimation should be systematically addressed by each entity as a business and valuation procedure, as a starting point that defines the purpose and structure of financial statements, as well as the qualitative requirements that must be met by the information.

In the study conducted by **Cenar (2012)**; It is aimed to approach the reality regarding the inclusion of the accounting policies applied in the enterprises regarding the national and international regulatory framework in the financial statements of the enterprise. In addition, the perception of the normative theoretical framework regarding the principles, contracts, rules and practices applied in the preparation and presentation of financial statements of an enterprise and the determination of convergences and differences in its practical application are also discussed.

In the study conducted by **Kaplan and Reckers (1995)**; The impact of three environmental red flags on auditors' actions regarding accounting estimates was investigated. The results show that audit managers tend to make reporting decisions that are relatively conciliatory to the client, while auditors tend to make relatively conservative reporting decisions.

In the study conducted by **Syzdykova (2016)**; The methods of determining the discount rate used for the goodwill impairment test according to TFRS and the tasks of these methods are analyzed. At the same time, in the study; The results of the experimental analyzes of the discount rates used by ISE 100 companies in 2014 are also included. However, within the scope of TAS 36 Impairment of Assets Standard, impairment practices related to goodwill have been examined and a conclusion has been reached regarding the extent to which the requirements of the standard have been applied.

5. EXAMINATION OF THE EFFECTS OF ACCOUNTING ESTIMATE CHANGES ON THE INCOME STATEMENT: AN EXAMINATION ON ISE COMPANIES

Businesses may need to make various estimations when determining the value of financial statement account items. There may be situations that require businesses to make changes in their accounting estimates. The fact that these estimations are based on judgment and assumptions can affect the financial statements and, accordingly, the decisions of financial information users. Accordingly, how the effects of accounting estimation changes on the financial statements should be reflected and explained are regulated and explained in our country within the scope of TMS, LMSE FRS and SME FRS.

A change in AEs may have effects on the current and/or future periods of the financial statements, especially the income statement. Therefore, in order for information users to make the right decisions, the effects of the relevant estimation changes should be reflected and explained in the financial statements in accordance with accounting standards. In this respect, it is important to examine the changes in AEs that are expected to have effects on the information user decisions on the financial statements, how they are reflected on the financial statements and how they are explained.

In this context, in this study, the changes in AEs of companies that announced changes in AEs from companies traded in Stock Exchange Istanbul (ISE) between 2013-2021 were analyzed by content analysis method.

5.1. Purpose of the Research

The main purpose of this research is to examine the reflection of accounting estimation changes on the income statement (profit/loss statement) within the framework of TAS-8 standard. For this purpose, the frequency of estimation changes in publicly traded companies in Turkey, what type of accounting estimation changes are made, which types of auditing firms give estimation changes, with what type of audit opinions and in which sectors, the effects of estimation changes on the current and future profit/loss statements have been determined.

5.2. Research Method

The method followed in this study, in which the independent audit reports of Stock Exchange Istanbul (ISE) companies between the years 2013-2021 are analyzed by content analysis method within the scope of TAS 8 Accounting Policies, Changes in Accounting Estimates and Errors Standard, can be summarized as follows:

***** Companies traded in Stock Exchange Istanbul (ISE) between 2013 and 2021 were identified.

***** Independent audit reports of companies traded in ISE between 2013-2021 were examined and companies that changed their AEs were determined as the sample of the research.

***** The subject of the sample, the number of accounting estimation changes in companies, the reasons for accounting estimation changes, the sectors in which estimation changes, which type of audit opinion and the audit firm are given are revealed. In addition, important issues such as the direction and size of the effect of forecast changes on the current and/or future period profit/loss statement, which are determined by the inside analysis, are revealed.

5.2.1. Sample Selectıon

The main body of the study consists of a total of 4132 companies traded in the ISE between 2013-2021. All sectors are within the scope of the study. In this context, 66 companies that announced changes in AEs in their financial reports constitute the sample of the study. The distribution of the companies in the sample by years is given in Table 1. In the study, the financial reports on the Public Disclosure Platform (PDP) corporate website were used.

Tablo 1 Sample Selection

Years	**Number of Companies Inspected**	**Number of Companies Making Changes in Accounting Estimates**
2013	416	16
2014	430	11
2015	433	6
2016	446	9
2017	460	9
2018	465	6
2019	472	4
2020	476	2
2021	534	3

5.2.2. Data Analysis Method

Content analysis method, one of the qualitative analysis methods, was used in this study in which Stock Exchange Istanbul (ISE) companies that make AE changes are examined. The content analysis method, which provides the opportunity to make comments with the findings obtained in the direction of statistical information, also allows the researcher to make an objective and systematic explanation by making use of statistical information. Thus, it aims to reach quantitative data (Koçak and Arun, 2006: 24, Çilingir, 2017: 150).

There are some steps to be followed in the content analysis method. Determining the research problem, determining the research sample, creating the research categories, creating the coding scale, measuring the reliability of the coding scale and analyzing the data are listed as the stages of the content analysis method (Çilingir, 2017:150-152). In other words, in this analysis method, data is prepared for analysis, then the data is coded, the codes are brought together and reduced to themes, and the data is presented as figures, tables or a discussion (Creswell, 2015, p: 180).

5.3. Research Findings

Among the companies traded in the ISE between 2013-2021, the forecast changes of the companies that announced a change in forecast were analyzed using the content analysis method, and the findings of the analysis are given below in Tables and the findings are evaluated.

5.3.1. Descriptive Findings

Independent audit reports of companies listed in Stock Exchange Istanbul (ISE) between 2013-2021 were analyzed by content analysis method in terms of accounting estimation changes. The descriptive findings regarding the number of companies that have announced changes in AEs, audit firms, types of audit opinions and their distribution by sectors are given in the Tables below.

In Table 2, the numerical distribution of the number of companies that announced changes in AEs and those that did not, according to years is given.

Tablo 2 Distribution of Companies Announcing Changes in AEs by Years and Distribution of Companies Not Disclosure of AE Changes by Years

Years	**Examined Number of Companies**	**Number of Companies Announced Changes in Accounting Estimates**	**Number of Companies with No Change in Accounting Estimates**	**Number of Companies Without Accounting Estimate Change Disclosure**
2013	416	16	147	253
2014	430	11	164	255
2015	433	6	171	256

2016	446	9	177	260
2017	460	9	197	254
2018	465	6	203	256
2019	472	4	188	280
2020	476	2	205	269
2021	534	3	214	317
TOTAL	**4132**	**66 (%1,6)**	**1666 (%40,3)**	**2400 (%58)**

As can be seen in Table 2, 66 (1.60%) out of a total of 4132 companies announced AE changes in their financial reports between 2013-2021. However, 1666 of the companies (40.3%) declared that there was no AE change; 2400 (58%) did not disclose whether there was a change in AE. In Table 2, the AE change disclosure is maximum in 2013; It is seen that at least in 2020.

In Table 3, the numerical distribution of the companies in the sample describing the accounting estimation change, according to the years, of the classification of audit firms as 4 major audit firms and national/international audit firms is given.

Tablo 3 Distribution of Companies Announcing Changes in AEs by Audit Firms

Years	**Types of Audit Firm**	
	Big Four Accounting Audit Firm	**Other (National/International) Audit Firms**
2013	8	8
2014	7	4
2015	3	3
2016	3	6
2017	5	4
2018	3	3
2019	-	4
2020	1	1
2021	1	2
TOTAL	**31 (%47)**	**35 (%53)**

In Table 3; When the auditing firms of the companies that have announced changes in AEs are classified as 4 big and others, it is seen that nearly half (47%) are audited by 4 big companies and half (53%) are audited by other national/international audit institutions.

Table 4 presents the numerical distribution of companies that have announced changes in AEs according to audit opinion types.

Tablo 4 Distribution of Companies Announced Changes in AEs by Types of Audit Opinions

Years	Type of Audit Opinion			
	Qualified Opinions	**Unqualified Opinions**	**Adverse Opinion**	**Not Expressing Opinion**
2013	11	-	5	-
2014	9	-	2	-
2015	6	-	-	-
2016	9	-	-	-
2017	9	-	-	-
2018	6	-	-	-
2019	3	-	1	-
2020	2	-	-	-
2021	2	-	-	1
TOTAL	**57**	**0**	**8**	**1**

According to Table 4; 57 companies (86%) that announced changes in AEs gave their audit opinion as 'qualified opinions', 8 companies (12%) as 'adverse opinion', and 1 company (2%) as 'not expressing opinion'.

In Table 5, the numerical distribution of the companies that announced changes in AEs by sectors is given.

Tablo 5 Sectoral Distribution of Companies Announcing Changes in AEs

Distribution of Companies that Change Accounting Estimates by Years / **Company Sectors**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**TOTAL**
Financial Institutions / Real Estate Investment Trusts	1	-	-	1	1	-	-	-	-	**3**
Manufacturing / Based on Stone and Soil	3	3	1	-	-	-	-	-	-	**7**
Manufacturing / Basic Metal Industry	3	-	-	-	2	-	-	-	-	**5**
Wholesale And Retail Trade, Restaurants And Hotels / Retail Trade	-	-	-	1	1	1	1	-	-	**4**
Technology / Information Technologies	2	1	2	3	2	1	1	1	-	**13**
Financial Institutions / Holdings And Investment Companies	1	-	-	-	1	-	-	-	-	**2**
Manufacturing / Metal Goods, Machinery, Electrical Equipment and Transportation Vehicles	1	1	-	-	1	-	1	-	-	**4**
Manufacturing / Food, Beverage And Tobacco	2	3	-	-	-	2	1	1	1	**10**
Manufacturing / Chemistry Pharmaceutical Petroleum Rubber And Plastic Products	1	1	-	2	-	-	-	-	1	**5**
Mining And Quarrying / Coal And Lignite Mining	1	1	-	-	-	-	-	-	-	**2**
Manufacturing / Textile, Clothing And Leather	1	1	-	-	-	-	-	-	1	**3**
Transportation, Storage and Communication / Communication	-	-	-	-	1	1	-	-	-	**2**
Electricity Gas And Water / Electricity Gas And Steam	-	-	-	1	-		-	-	-	**1**
Outright Purchases and Sales Market-(Among Qualified Investor	-	-	1	-	-	1	-	-	-	**2**
Information and Communication / Publishing	-	-	2	1	-		-	-	-	**3**

As seen in Table 5; Between 2013-2021, the accounting estimation change announcement was made mostly in the technology/informatics sector (20%). This was followed by the manufacturing/food, beverage and tobacco sector (15%).

5.3.2. Findings Regarding the Reasons for the Change in Estimate of Companies Announced Changes in Accounting Estimates

In order to determine what kind of accounting estimation changes occurred in companies, the accounting estimation changes announced by the companies traded in the ISE between 2013-2021 were examined and the accounting estimation changes that took place were grouped in Table 6 by years according to their reasons.

Tablo 6 Distribution of Reasons for Change in Accounting Estimates by Years

Years	Reason for Change in Accounting Estimate				
	Useful Life	**Provision Amounts**	**Currency Unit**	**Actuarial Calculation**	**Fair Value**
2013	6	5	2	3	-
2014	6	1	1	3	-
2015	2	2	2	-	-
2016	5	-	4	-	-
2017	3	1	4	-	1
2018	4	-	2	-	-
2019	2	-	2	-	-
2020	1	-	1	-	-
2021	-	1	1	-	1
TOTAL	**29**	**10**	**19**	**6**	**2**

As can be seen in Table 6, the reasons for the AE change explained in the footnotes of the companies' financial statements; useful life estimation, provision amount estimation, currency estimation, estimations related to actuarial calculations and fair value estimation are grouped under 5 headings. According to this; It is seen that the most common accounting estimation change in the accounting estimation changes announced in ISE companies between 2013-2021 is the useful life estimation change. This was followed by the change in currency estimation and accounting estimation changes regarding the provision amounts.

5.3.3. Findings Regarding the Reflections of the Change in Accounting Estimates on the Income Statement (Period Profit-Loss Statement)

The reflections of the AE change disclosures on the Income Statement (Profit-Loss Statement) of ISE companies are summarized in Tables under the following headings within the scope of TAS-8.

5.3.3.1. Findings Regarding the Number of Companies Affecting the Period Profit-Loss Statement of the Change in Accounting Estimate

The numerical distribution of the companies in the sample that announced changes in AEs, whose AE changes are effective on the Income Statement (Period Profit-Loss Statement) is shown in Table 7 by years.

Tablo 7 Distribution of the Number of Companies Affecting the Period Profit/Loss Statement of the Change in AE by Years

Years	Distribution of the Number of Companies Affecting the Period Profit/Loss Statement of the Change in Accounting Estimate by Years
2013	3
2014	4
2015	3
2016	3
2017	2
2018	4
2019	1
2020	0
2021	1
TOTAL	**21**

As can be seen in Table 7, only 21 (32%) of the 66 companies that announced changes in AEs between 2013-2021 explained the effect of the AE change in a way that indicates its effect on the profit and loss statement.

5.3.3.2. Findings of Audit Firms of Companies whose Accounting Estimation Changes Affected the Period Profit-Loss Statement

The numerical distribution of the audit firms that prepare the independent audit reports of the companies that explain the reason for the accounting estimation change that will affect the period profit and loss statement is given in Table 8.

Tablo 8 Distribution of AE Changes Affecting the Period Profit/Loss Statement by Audit Firms

Years	Distribution of Accounting Estimate Changes Affecting the Period Profit/Loss Statement by Audit Firms	
	Big Four Accounting Audit Firms	**Other (National/International) Audit Firms**
2013	3	-
2014	4	-
2015	3	-
2016	2	1
2017	2	-
2018	3	1
2019	-	1
2020	-	-
2021	-	1
TOTAL	**17**	**4**

As can be seen in Table 8, it is seen that the audit firms that prepare the independent audit reports of the companies whose accounting estimation changes affect the profit and loss statement for the period are mostly the 4 big auditing firms (81%), while the others are national/international auditing firms (19%).

5.3.3.3. Findings Regarding the Types of Audit Opinions of the Companies whose Accounting Estimation Change Affected the Period Profit-Loss Statement

Table 9 shows the numerical distribution of the audit opinions expressed in the independent audit reports of the 66 companies in the sample, which announced the effect of the AE change on the profit and loss statement, according to the types of opinions.

Tablo 9 Distribution of AE Changes Affecting the Period Profit and Loss Statement of Companies by Types of Audit Opinions

Years	Distribution of Accounting Estimate Changes Affecting the Period Profit and Loss Statement of Companies by Types of Audit Opinions			
	Qualified Opinions	**Unqualified Opinions**	**Adverse Opinion**	**Not Expressing Opinion**
2013	3	-	-	-
2014	4	-	-	-
2015	3	-	-	-
2016	3	-	-	-
2017	2	-	-	-
2018	4	-	-	-
2019	1	-	-	-
2020	-	-	-	-
2021	-	-	-	1
TOTAL	**20**	**0**	**0**	**1**

As seen in Table 9, the most (95%) audit opinion was given to the companies whose accounting estimation change affected the period P/L statement, with 'qualified' audit opinion type and 'not expressing opinion' audit opinion type (5%).

5.3.3.4. Findings Regarding the Number of Companies Affecting the Current Period and/or Future Period Profit-Loss Statement by the Change in Accounting Estimates

A change in the AE is reflected in the financial statements prospectively by considering whether the change causes a change in assets and liabilities, whether it is related to the equity item, and which periods it affects. According to this; Two situations arise if a change in AE does not result in a change in assets or liabilities or is not related to an item of equity. If the relevant change only affects the period in which the change was made, the profit or loss of the period in which the change was made; If the change affects the current period and future periods, it is included in the profit or loss both in the current period and in the future periods and reflected in the financial statements (TAS-8, paragraph 36).

The companies in the sample were examined in terms of reflecting the change in AEs to the prospective financial statements, and the distribution of the number of companies that affect the current period and/or future period profit and loss statement is given in Table 10.

Tablo 10 Accounting Estimate Change Current Period and/or Future Period Profit and Loss Statement Number of Companies Affecting

Years	Accounting Estimate Change Current Period Profit and Loss Statement Number of Companies Affecting	Accounting Estimate Change Current Period and/or Future Period Profit and Loss Statement Number of Companies Affecting
2013	3	-
2014	4	-
2015	3	-
2016	3	-
2017	2	-
2018	3	1
2019	1	-
2020	0	-
2021	1	-
TOTAL	**20**	**1**

As seen in Table 10, out of 21 companies that announced the effect of the change in AE on the profit and loss statement, 20 (99%) of the companies announced the change in AE; In 1 company, it has been announced that it affects both the current period and the future period profit and loss statement.

5.3.3.5. Findings Regarding the Direction and Size of the Effect of Change in Accounting Estimates on Profit and Loss

Table 11 shows the effect of the change in accounting estimation on the profit and loss statement of the companies that explain the effect of the change in the estimation on the profit or loss in the form of increase or decrease and the size of this increase in terms of the amount related to the decrease.

Tablo 11 Direction and Size of the Effect of Change in Accounting Estimate on Profit and Loss

Years	Direction of the Effect of Change in Accounting Estimate on Profit and Loss	Size of the Effect of Change in Accounting Estimate on Current Period Profit and Loss
2013	Decrease	50.649,23
2014	Increase - Decrease	61.242,00 - 895.041,00
2015	Increase - Decrease	5.497,00 - 879.158,00
2016	Increase	41.114,00
2017	Increase - Decrease	27.680,015 - 213.406,00
2018	Increase - Decrease	520.137,57 - 669.332,00
2019	Increase	258.247,62
2020	-	-
2021	Decrease	21.475,00

As seen in Table 11; While the direction of the effect of accounting estimation changes on the current period profit and loss statement was in the direction of decrease in 2013 and 2021, it was in the direction of increase in 2016 and 2019. However, the effect of accounting estimation changes in 2014, 2015, 2017 and 2018 has been both increasing and decreasing. On the other hand, the accounting estimation change had the most reducing effect on the current period profit and loss statement in 2014; it had the most increasing effect in 2018.

6. **CONCLUSION**

Businesses make various AEs and present up-to-date and reliable information while determining the value of financial statement items. AEs made by businesses can affect financial statements and, accordingly, the decisions of information users. Therefore, significant AEs and changes in AEs may need to be disclosed in the financial statements and footnotes in accordance with the relevant accounting standards. In this context, the way in which accounting estimation changes should be reflected and explained in the financial statements is regulated in TAS-8 in Turkish Accounting Standards, Financial Reporting Standard for Large and Medium Sized Enterprises (LMSE FRS). It is also regulated in the Financial Reporting Standard for Small and Micro Enterprises (SME FRS), which is still in draft form.

A change in AEs may have effects on the current and/or future periods of the financial statements, especially the income statement (profit-loss statement). Therefore, in order for information users to make the right decisions, the effects of the relevant estimation changes should be reflected and explained in the financial statements in accordance with accounting standards. According to TAS-8; a change in the AE; If there is a change that does not cause a change in assets and liabilities or is not related to an equity item, there are two situations. If the relevant change only affects the period in which the change was made, it is reflected in the profit or loss of the period in which the change was made. however, if the change affects the current period and future periods, it is included in the profit or loss both in the current period and in the future periods and reflected in the financial statements (TAS-8, paragraph 36). If, a change in the AE; If there is a change that causes a change in assets and liabilities or is related to an equity item, the related item (asset, liability or equity) is reflected in the financial statements by adjusting the book value in the period in which the change occurred (TAS-8, paragraph 37). In addition, in the event of an accounting estimation change, the nature and amount of the accounting estimation change that has an effect on the current period or is expected to have an effect on the future period should be disclosed. If the effect of the change in AE on future periods cannot be estimated by the entity, this effect is not disclosed (TAS-8, paragraph 39). In this respect, it is important to examine the changes in AEs that are expected to have effects on the information user decisions on the financial statements, how they are reflected on the financial statements and how they are explained.

In this context, the reflection of AE changes on the income statement (profit/loss statement) of 66 companies that announced changes in AEs from companies traded in Stock Exchange Istanbul (ISE) between 2013-2021 was analyzed by content analysis method within the framework of TAS-8 standard. Böylece, The frequency of accounting estimation changes in publicly traded companies in Turkey, which types of accounting estimation changes are made, which types of audit firms, with which audit opinions and in which sectors, the effects of estimation changes on current and future profit/loss statements have been determined.

The findings obtained as a result of the analysis of the financial reports of 66 companies that announced changes in AEs from companies traded in Stock Exchange Istanbul (ISE) between 2013-2021 using the content analysis method are summarized below:

- Between 2013-2021, 66 (1.60%) of a total of 4132 companies announced changes in AEs in their financial reports. However, 1666 of the companies (40.3%) declared that there was no AE change; 2400 of the companies (58%) did not disclose whether there was a change in AEs.
- The accounting estimation change was announced at the most in 2013 and at least in 2020.
- Nearly half (47%) of the companies that announced changes in AEs were audited by big four accounting companies and half (53%) were audited by other (national/international) audit institutions.
- 57 companies (86%) that announced a change in AEs gave their audit opinion as 'qualified opinions ', 8 companies (12%) as 'adverse opinion', and 1 company (2%) as ' not expressing opinion '.
- The accounting estimation change announcement was made mostly in the technology/informatics sector (20%). This was followed by the manufacturing/food, beverage and tobacco sector (15%).
- The most common accounting estimation change in the announced accounting estimation changes is the useful life estimation change. This was followed by the change in currency estimation and accounting estimation changes regarding the provision amounts.

- Only 21 (32%) of the 66 companies that announced a change in accounting estimation made a change in accounting estimation, indicating its effect on the profit and loss statement.
- It has been observed that the audit firms that prepare the independent audit reports of the companies whose accounting estimation changes affect the period profit and loss statement are mostly the 4 big auditing firms (81%).
- At most (95%) 'qualified opinions ' audit opinion was given to companies whose accounting estimation changes affect the period's P/L statement..
- Of the 21 companies that announced the effect of the change in accounting estimation on the profit and loss statement, the change in accounting estimation in 20 (99%) affected the current period profit and loss statement. In 1 company, it affected both the current period and the future period profit and loss statement.
- While the direction of the effect of accounting estimation changes on the current period profit and loss statement was in the direction of decrease in 2013 and 2021, it was in the direction of increase in 2016 and 2019. However, the effect of accounting estimation changes in 2014, 2015, 2017 and 2018 was both increasing and decreasing.
- The AE change has the most decreasing effect in the current period profit and loss statement in 2014, and the most increasing effect in 2018.

In summary, in this study where the reflection of an AE changes from the statement of income (profit/ loss table) was reviewed in accordance with TAS-8, the frequency of AE modifications in publicly traded corporations of Turkey, what sort of AE changes were made, by what kind of audit organizations, with what type of audit opinions and in what kind of sectors they were presented and the effects of AE changes on current and next term profit/ loss table were specified.

In future studies, the effects of accounting estimation changes over a longer period can be examined. In addition, the reflections of accounting estimation changes in financial statements can be investigated in non-public companies within the scope of LMSE FRS. In addition, studies can be carried out to investigate whether changes in AEs are used within the scope of profit management.

REFERENCES

Akbaba, C. (2021). Şerefiye Değer Düşüklüğü Açıklama Gereklilikleri Üzerine Bir İnceleme. Mali Çözüm Dergisi, 31(165), 145-166.

Akça, N., & Gönen, S.(2015). Karşılıklar, Koşullu Borçlar ve Koşullu Varlıkların Türkiye Muhasebe Standartları ve Vergi Mevzuatı Kapsamında Değerlendirilmesi. *Siyaset Ekonomi Ve Yönetim Araştırmaları Dergisi, , 3*(3), 89-105.

Akgün, A. İ. (2009). Türkiye'de Finansal Raporlama Standartları Açısından Varlıklarda Değer Düşüklüğü ve Şerefiyenin İncelenmesi. *Kocaeli Üniversitesi Sosyal Bilimler Dergisi*, (18), 1-34.

Aktaş, R. (2013). "Muhasebe Politikaları, Tahminler ve Hatalar", Gazi Kitabevi, Ankara 2013.

Arslan, A. & Zaif, F. (2021). Beklenen Kredi Zararlarının Ölçümünde Kullanılan Yöntemler: BİST 30^da Bir Araştırma. Muhasebe Bilim Dünyası Dergisi, 23(1), 144-171.

Ayboğa, H., & Aslanoğlu, S.(2002). İşletmelerde Şüpheli Ticari Alacaklar ve Karşılıklarının Hesaplanmasında Parakende Satış Yöntemi. *Öneri Dergisi,* 5(17), 53-67.

Aygören, H. & Kurtcebe, E (2019). Türev Finansal Araçların Muhasebe Standartlarına Göre Muhasebeleştirilmesi. *Muhasebe ve Finansman Dergisi*, 84, 1-16.

Bal, M. (2019). BIST'te İşlem Gören İmalat Sektöründeki İşletmelerin TMS 8 Muhasebe Politikaları, Muhasebe Tahminlerindeki Değişiklikler Ve Hatalar Standardı Açısından İncelenmesi (Yayınlanmamış Yüksek Lisans Tezi). Manisa: Celal Bayar Üniversitesi Sosyal Bilimler Enstitüsü.

Boyar, E. & Güngörmüş, A. H. (2006). TMS-2 Stoklar Standardında Maliyet Yöntemi ve Bir Uygulama Önerisi. *Marmara Üniversitesi Analiz Dergisi*, 7(16), 83-91.

Burcă, V., Nicolăescu, C., & Drăguţ, D. (2019). Critical Analysis on the Amendments Discussed, Concerning Changes in Accounting Estimates. *Studies in Business and Economics*, *14*(1), 17-33.

Büyük ve Orta Boy İşletmeler İçin Finansal Raporlama Standardı (BOBİ FRS).

Cebeci, Y. & Cavlak, H. (2018). Karşılıkların Türkiye Muhasebe / Finansal Raporlama Standartları Kapsamında Şirketlerde Kullanımı. *Marmara Üniversitesi Öneri Dergisi*, 13(49), 109-128).

Cenar, I. (2012). Accounting policies and Estimates in municipalities Between norms and Reality. *Annals of the University of Petroşani. Economics*, *12*, 49-60.

Creswell, J. W. (2015). Nitel Araştırma Yöntemleri. Çev. Selçuk Beşir DEMİR. Ankara: Siyasal Kitabevi.

Çetinkaya, N. (2017). Yatırım Amaçlı Gayrimenkullerin Değerlemesinde Gerçeğe Uygun Değer Tespiti ve Türkiye'deki Uygulamaların Değerlendirilmesi. *İktisadi İdari ve Siyasal Araştırmalar Dergisi*, 2(4), 69-83.

Çilingir, A. (2017). İletişim Alanında İçerik Analizi Yöntemi Kullanılarak Yapılan Yüksek Lisans Ve Doktora Tezleri Üzerine Bir İnceleme. Erciyes İletişim Dergisi, 5(1), 148-160.

Ertan, Y. & Gücenme Gençoğlu, Ü. (2013). Şerefiye Değer Düşüklüğü Testi: İMKB 50 Endeksindeki İşletmelerin Uygulamaları. *Muhasebe Bilim Dünyası Dergisi, 2*, 1-23.

Esen, Ö. & Perek, A. A. (2009). Varlıklarda Değer Düşüklüğü Standardının (TMS 36) Nakit Yaratan Birim, Şerefiye ve Şirket Varlıkları Açısından incelenmesi. *Muhasebe Bilim Dünyası Dergisi, 3*, 143-172.

Fındık, H. (2016). Türkiye Muhasebe Standartları Çerçevesinde Finansal Varlıkların Muhasebeleştirilmesi. *Muhasebe ve Finansman Dergisi*, 69, 61-82.

Ghosh, A. A., & Siriviriyakul, S. (2019). Changes in Accounting Estimates: Managerial Opportunism or Risky Firms?. *Baruch College Zicklin School of Business Research Paper*, (2019-02), 01.

Gücenme Gençoğlu, Ü. (2017). Temel Konularda BOBİ FRS ve TMS/TFRS Karşılaştırması. *Journal of Accounting & Finance*, 76, 1-24.

Gökgöz, A. (2019). TFRS 9 Finansal Araçlar Standardı Çerçevesinde Ticari Alacaklara İlişkin Beklenen Kredi Zararlarının Tespiti ve Muhasebeleştirilmesi. *Journal of Accounting, Finance and Auditing Studies*, *5*(2), 163-178.

Gökgöz, A. (2012). TMS 8: Muhasebe Politikaları, Muhasebe Tahminlerinde Değişiklikler Ve Hatalar Standardına İlişkin Muhasebe Uygulamaları. *World of Accounting Science*, *14*(4), 151-174.

Gücenme Gençoğlu, Ü. (2017). Temel Konularda BOBİ FRS ve TMS/TFRS Karşılaştırması. *Muhasebe ve Finansman Dergisi*, *76*, 1-24.

Güngörmüş, A. H. & Boyar, E. (2010). TMS-2 Stoklar Standardına Göre Standart Maliyet Yönteminin Uygulanması. *Mali Çözüm*, 102, 109-127.

Gürdal, K. (2006). Muhasebe Politikaları, Muhasebe Tahminlerindeki Değişiklikler ve Hatalar. *Muhasebe ve Finansman Dergisi*, 32, 1-12.

Ionescu, C., & Georgescu, F. (2014). Estimation and valuation in accounting. *Journal of Economic Development, Environment and People*, *3*(1), 38-49.

Kaplan, S., & Reckers, P. M. (1995). Auditors′ reporting decisions for accounting estimates. *Managerial Auditing Journal*, *10*(5), 27-36.

Kamu Gözetimi Muhasebe ve Denetim Standartları Kurumu(2021) https://www.kgk.gov.tr/DynamicContentDetail/10265/Büyük-ve-Orta-Boy-İşletmeler-İçin-Finansal-Raporlama-Standardı-(BOBİ-FRS)-2021-Sürümü. Erişim Tarihi 02.01.2022.

Koçak, A., & Özgür, A. R. U. N. (2006). İçerik analizi çalışmalarında örneklem sorunu. Selçuk İletişim, 4(3), 21-28.

Küçük ve Mikro İşletmeler İçin Finansal Raporlama Standardı (KÜMİ FRS) Taslağı

Ömürbek, V., & Öztürk, M. S. (2013). Muhasebe Politikaları Ve Tahminlerindeki Değiţikliklerle İlgili İmkb 100 Ţirketlerinde Bir İnceleme. *Muhasebe Ve Vergi Uygulamalari Dergisi (Muvu)/Journal Of Accounting & Taxation Studies (Jats)*, *6*(3).

Mert, H. & Güleryüz, M. (2015). Muhasebe Tahminlerinin Denetimi: Stoklar ve Ticari Alacaklar İçin bir Uygulama. *Mali Çözüm*, 130, 41-60.

Parlakkaya, R. (2010). TMS-8: Muhasebe Poitikaları, Muhasebe Tahminlerinde Değişiklikler ve Hatalar Standardı Uygualamaları. *Muhasebe ve Vergi Uygulamaları Dergisi*, 3(1), 65-86.

Sermaye Piyasası Kurulu Sermaye Piyasasında Muhasebe Standartları Hakkında Tebliğ (Seri: XI, No:25).

Süer, A. Z. (2021). Önemli Muhasebe Tahminlerinin Kilit Denetim Konuları Çerçevesinde İncelenmesi. *Muhasebe Enstitüsü Dergisi*, (65), 23-37.

Syzdykova, A.(2016). Türkiye'de Tfrs'ye Göre Şerefiye Değer Düşüklüğü Testi: Bist 100 Şirketleri Tarafından Kullanılan İskonto Oranlarının Analizleri.

Ulusan, H. (2007). Muhasebe Politikası Seçiminin Ekonomik Belirleyicileri Üzerine Ampirik Bir Çalışma. *Ankara Üniversitesi SBF Dergisi*, 62(2), 167-198.

TFRS 7 Finansal Araçlar Standardı

TFRS 9 Finansal Araçlar Standardı.

TFRS 13 Gerçeğe Uygun Değer Ölçümü Standardı

TFRS 15 Müşteri Sözleşmelerinden Hasılat

TMS 2 Stoklar Standardı.

TMS 8 Muhasebe Politikaları, Muhasebe Tahminlerinde Değişiklikler ve Hatalar Standardı.

TMS 12 Gelir Vergileri Standardı

TMS 16 Maddi Duran Varlıklar Standardı.

TMS 32 Finansal Araçlar Standardı

TMS 37 Karşılıklar, Koşullu Borçlar ve Koşullu Varlıklar Standardı.

TMS 40 Yatırım Amaçlı Gayrimenkuller Standardı.

Tuğay, O. (2013). Maddi Duran Varlıklarda Amortisman Uygulamalarının Tms 16 ve Vergi Mevzuatı Açısından İncelenmesi. *Çukurova Üniversitesi İBFF Dergisi, 17*(2), 167-187.

Ulusan, H. (2004). Koşullu Borç Zarar Karşılıklarının Ölçümü, Kayıtlanması ve Sunumu. *Mali Çözüm, 69,* 200-219.

Uyar, B. (2009). TMS-2 Stoklar Standardı Üzerine Bir Değerlendirme. *Muhasebe ve Denetime Bakış,* 28, 131-144.

Varıcı, İ. (2014). Muhasebe Ve Denetim Standartları Açısından Muhasebe Tahminleri. *Muhasebe ve Vergi Uygulamaları Dergisi,* 2, 81-115.

Yaşar, A., & Çetin, E. (2022). Şerefiye Değer Düşüklüğüne İlişkin Tahmin ve Varsayımlar Hakkında Açıklamaların ve Denetim Prosedürlerinin İncelemesi. *Mali Çözüm Dergisi/Financial Analysis*, 32 (169), 127-150.

Yıldırım, S. & Karanlık, S. (2008). Türkiye Muhasebe Standardı (TMS-37) Kapsamında Karşılıklar ve Garanti Giderleri. Muhasebe Bilim Dünyası Dergisi, 3, 107-122.

Yükçü, S., & Gönen, S. (2012). Muhasebe Politikaları, Muhasebe Tahminlerindeki Değişiklikler Ve Hatalar Standardına İlişkin Uygulama Önerileri. *Mali Çözüm Dergisi/Financial Analysis*, (114), 17-3.

Yükçü, S. & Yaşar, Ş. (2013). Karşılıklar, Koşullu Borçlar ve Koşullu Varlıların TMS 37 Standardı Kapsamında İncelenmesi. *Muhasebe ve Denetime Bakış Dergisi, 13 (40),* 1-14.