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A COMPARISON OF THE REGULATIONS ON DEPRECIATION IN TURKIYE, SAUDI ARABIA AND UNITED ARAB EMIRATES*

TÜRKİYE, SUUDİ ARABİSTAN VE BİRLEŞİK ARAP EMİRLİKLERİ'NDE AMORTİSMAN İLE İLGİLİ YER ALAN DÜZENLEMELERİN KARŞILAŞTIRILMASI

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ABSTRACT: The concept of tangible fixed assets is used to describe assets with a limited useful life. These assets are physical assets that are acquired by the businesses for use in more than one operating period and undergo wear and tear and depreciation during the operating period. The accuracy of the depreciation process related to tangible fixed assets, which is important for all businesses, is extremely important in terms of preparing financial statements in accordance with the needs of financial information users. The increase in the position of technology in human life and its role in the development of international trade volume has increased the number of businesses operating on an international scale in this period. For this reason, the share of depreciable assets among the assets of businesses and therefore the importance of depreciation on financial statements has increased. Since depreciation is an effective item in determining taxable profit, this study examines with the depreciation of property, plant and equipment in accordance with the Turkish Tax Procedure Law (TPL), Turkish Accounting Standard 16 (TAS 16) and the the regulations applied in Saudi Arabia and United Arab Emirates. In addition, the similarities and differences between the regulations regarding depreciation in these three countries are explained with the help of tables. After that, explanations on how the differences may affect the financial position and income statement are also included.

Keywords: ***Depreciation, Depreciation Accounting, Turkish Tax Procedure Law, Saudi Arabian Tax and Zakat laws, United Arab Emirates Tax Law, TAS 16, IAS 16.***

ÖZ: Maddi duran varlıklar kavramı, sınırlı faydalı ömre sahip varlıkları tanımlamak için kullanılmaktadır. Bu varlıklar, işletmelerin birden fazla faaliyet döneminde kullanmak amacıyla edindikleri, faaliyet süresi boyunca aşınma, yıpranma ve değer kaybına uğrayan fiziki varlıklardır. Tüm işletmelerde önemli olan maddi duran varlıklar ile ilgili amortisman işleminin doğruluğu, finansal tabloların finansal bilgi kullanıcılarının ihtiyaçlarına uygun olarak hazırlanması açısından son derece önemlidir. Teknolojinin insan hayatındaki konumunun artması ve uluslararası ticaret hacminin gelişmesinde de rol oynaması bu dönemde uluslararası ölçekte faaliyet gösteren işletmelerin sayısını artırmıştır. Bu yüzden işletmelerin varlıkları arasında amortismana tabi varlıkların payı ve dolayısıyla amortismanın finansal tablolar üzerindeki önemi artmıştır. Amortisman, vergiye tabi kârın belirlenmesinde etkin bir kalem olduğu için bu çalışmada Türkiye Vergi Usul Kanunu (VUK) ve Türkiye Muhasebe Standardı 16 (TMS 16) ile Suudi Arabistan ve Birleşik Arap Emirlikleri'ndeki uygulanan düzenlemeler doğrultusunda maddi duran varlıklarda amortisman ayrılması konusu ele alınmıştır. Ayrıca bu üç ülkede amortismanlar ile ilgili yer alan düzenlemeler arasındaki benzerlikler ve farklılıklar oluşturulan tablolar yardımıyla açıklanmıştır. Daha sonra, farklılıkların finansal durum ve gelir tablosu üzerinde nasıl bir etki yaratabileceği konusunda da açıklamalara yer verilmiştir.

Anahtar Kelimeler* : *Amortisman, Amortisman Muhasebesi, Türkiye Vergi Usul Kanunu, Suudi Arabistan Vergi ve Zekât kanunları, Birleşik Arap Emirlikleri Vergi Kanunu, TMS 16, UMS 16.

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GENİŞLETİLMİŞ ÖZET

Çalışmanın Amacı

Bu çalışmanın temel amacı Türkiye, Suudi Arabistan ve Birleşik Arap Emirlikleri'nde uygulanan vergi kanunlarındaki amortisman ile ilgili yer alan düzenlemeleri. Bu çalışmanın ikinci amacı ise Türkiye, Suudi Arabistan ve Birleşik Arap Emirlikleri'nde uygulanan muhasebe standartlarında amortisman ile ilgili muhasebe uygulamalarını karşılaştırmaktır.

Araştırma Soruları

Amortisman, bilanço ve gelir tablolarını büyük ölçüde etkilemesi ve aynı zamanda vergi karı üzerinde de önemli bir etkiye sahip olması nedeniyle en önemli muhasebe uygulamalarından biridir. Suudi Arabistan ve Birleşik Arap Emirlikleri'nde faaliyet gösteren çok sayıda Türk işletmeleri bulunmasına rağmen, Türkiye, Suudi Arabistan ve Birleşik Arap Emirlikleri arasındaki amortismana ilişkin muhasebe uygulamalarını karşılaştıran daha önce yapılmış bir çalışma bulunmamaktadır. Bu bakımdan çalışmamız bu üç ülkedeki amortisman uygulamalarını karşılaştıran ilk çalışmadır.

Literatür Araştırması

Bu çalışmada öncelikle amortisman ile ilgili genel bir literatür taraması yapılmıştır. Bu bağlamda amortisman kavramı, amortisman yaklaşımları ve amortisman hesaplama yöntemleri ve ile ilgili literatür incelenmiştir. Ayrıca Türkiye, Suudi Arabistan ve Birleşik Arap Emirlikleri'nde uygulanan vergi kanunları doğrultusunda amortisman uygulamalarına ilişkin literatüre yönelik bir araştırma yapılmıştır. Daha sonra bu üç ülkede uygulanan muhasebe standartlarına uygun olarak amortisman uygulamaları incelenmiştir.

Yöntem

Bu çalışmada araştırma konusuyla ilgili kaynaklardan veri toplama yöntemlerinden yararlanılmıştır. Öncelikle Türk mevzuatındaki amortismanla ilgili bilgiler toplanmıştır. Daha sonra Suudi Arabistan ve Birleşik Arap Emirlikleri'nin düzenlemelerinde amortismanla ilgili bilgiler toplanmıştır. Daha sonra bu üç ülke arasındaki amortisman düzenlemeleri karşılaştırılmıştır. Son olarak bu üç ülkenin her birindeki amortisman düzenlemelerinin bilanço ve gelir tabloları üzerindeki etkisi açıklanmıştır.

Sonuç ve Değerlendirme

Sonuç olarak Türkiye, Suudi Arabistan ve Birleşik Arap Emirlikleri arasındaki amortisman uygulamalarında benzerlik ve farklılık noktaları tespit edilmiştir. Birleşik Arap Emirlikleri vergi kanunu amortisman konusunu hiç ele almazken, Türk ve Suudi vergi kanunlarının amortisman konusunu daha detaylı ele aldığı görülmüştür. Uluslararası muhasebe standartlarının uygulanmasında duran varlıkların amortismanı konusunda bu üç ülke arasında herhangi bir fark bulunmamaktadır. Bunun nedeni, muhasebe standartlarının öncelikle farklı ülkeler arasındaki muhasebe uygulamalarını birleştirmeyi amaçlamasıdır.

1. INTRODUCTION

Along with globalization, international accounting standards (IAS) have been developed to standardize accounting practices in all countries. In recent years, because many countries have adopted IAS, financial reports have become more transparent, comparable, and reflect the real situation in terms of accounting. It is important that the information produced by the accounting information system is valid in the decision-making processes of all corporate stakeholders, especially international investors on a global scale. Otherwise, if the information is valid only at the national level, the trade volume at both national and international levels will not reach the desired levels. Businesses operating in Turkiye adopt tax-oriented accounting practices. This means that the information produced by the accounting system is only valid at the national level, not at the international level, and that it does not reflect the reality.

The differences related to depreciation arise between both accounting practices according to the Turkish Tax Law and Turkish Accounting Standards/Turkish Financial Reporting Standards (TASs/TFRSs) because accounting practices according to the Tax Law aim to correctly determine the tax base while accounting practices according to TASs/TFRSs aim to show assets at fair value.

The same is likely to be the case with foreign-owned businesses in Saudi Arabia, as these businesses have to pay corporate tax on the foreign partner's shares. In addition, businesses that are wholly owned by Saudi or Gulf Cooperation Council nationals are liable to pay zakat, although they are not liable to pay tax. These businesses are therefore interested in presenting their financial statements in accordance with the zakat system.

The situation may be different for United Arab Emirates. United Arab Emirates has adopted a zero-tax policy until 2023. In this way, businesses submitted their financial statements in accordance with IAS. Therefore, the data of businesses operating in United Arab Emirates became more realistic.

Since these differences in depreciation practices in these three countries affect the data in the financial statements that businesses have to prepare, the determination of the differences between these regulations constitutes the subject of this research.

In this context, the depreciation accounting practices of Turkiye, Saudi Arabia, and United Arab Emirates were examined. In recent years, there has been a significant convergence between these three countries, and the convergence is increasing in investment and trade relations. Saudi Arabia is one of the most important developing countries in the Middle East; its capital is Riyadh. Saudi Arabia was founded in 1932. Saudi economic system is vital to the Middle East region (Alqahtani, 2019). This is because Saudi economy is the strongest and most stable economy in the Middle East (Almansour, 2019).

As for United Arab Emirates, its establishment was announced in 1971 and is therefore considered one of the newly emerging countries. But despite this, United Arab Emirates has opened its economy to the world since its establishment.

Today, United Arab Emirates is considered a major financial center in the region and a center for international trade (Al-Zarouni, 2009). According to data from the General Authority for Statistics (a Saudi government body), trade between Saudi Arabia and Turkiye increased from $358 million in June 2021 to $622 million in June 2022 (Saudi General Authority for Statistics, 2022). In addition, more than 200 Turkish businesses operate in Saudi Arabia. On the other hand, Saudi Arabia is the second Gulf country after Qatar and the seventh country in the world in terms of the volume of work carried out by Turkish contractors. Turkish contracting companies have implemented more than 100 projects in Saudi Arabia to date. Additionally, Saudi Arabia's investments in Turkiye are estimated at 2 billion dollars (Ministry of Foreign Affairs of the Republic of Turkiye, 2022).

According to United Arab Emirates Ministry of Economy, regarding commercial relations between Turkiye and United Arab Emirates, the Comprehensive Economic Partnership Agreement between United Arab Emirates and Turkiye was signed in March 2023 and came into effect in September 2023. The volume of trade between the two countries is expected to reach 25 billion dollars within a short period of time (United Arab Emirates Ministry of Economy, 2023).

In this study, firstly, the definition of depreciation, depreciation approaches and depreciation methods are explained. Then, the similarities and differences in the regulations on depreciation in tax laws and accounting standards in Turkiye, Saudi Arabia and United Arab Emirates are compared.

2. THEORETICAL FRAMEWORK

2.1. Concept of Depreciation

The concept of depreciation arises as a result of the loss of value of tangible fixed assets that are expected to be used in more than one accounting period, have a limited-service period and are used in the production or supply of goods or services in business and for general management purposes. (Bragg, 2010).

Different definitions of depreciation have been given by laws, standards and different scientists. Some of these definitions are as follows;

Depreciation is defined as the cost of impairment of the value of assets that can be used for more than one year and that lose their value for physical, technical, economic, or social reasons in the process extends to the relevant periods (Hajiyeva et al., 2022). In other words, depreciation is the process of converting the cost amount (registered value) of the relevant asset into an expense over the useful life of that asset (Özulucan and Temel, 2021).

In the economic literature, depreciation is used to mean the renewal of capital with profit. By using depreciation in this meaning, it aims to preserve capital and restore the economic value to the economy (Hatipoğlu, 2012).

In business science, depreciation is defined as the allocation of provisions from profits for the future renewal of assets whose value will decrease or may be exhausted (Doğan, 2004).

In the financial literature, depreciation is defined as the process of recovering values (investment assets) associated as capital.

In accounting literature, it is the recording of depreciable assets owned by businesses at the moment of accounting or at the end of the period at their value and their shares in profit/loss (Hatipoğlu, 2012).

For tax purposes, a depreciation can be defined as spreading the cost of an asset over its useful life so that investors can claim a portion of the cost as a tax deduction each year. Depreciation is a non-cash expense, meaning it does not involve actual cash flows, but it reduces taxable income, which leads to a lower tax liability (May, 2007).

2.2. Purpose of Depreciation

The main purpose of business depreciation is to systematically and purposefully allocate the costs of depreciable assets over the life cycles of the related assets. As a result of distributing the depreciation expenses of assets to the relevant periods the requirements of the concept of periodicity and cost basis, which are the basic concepts of accounting, are fulfilled and the profit/loss amount of each period is determined correctly. Otherwise, not performing depreciation processes, which directly/indirectly affect other financial statements, especially the balance sheet and income statement, will certainly negatively affect the reliability of the data produced by accounting, which is an information system (Özulucan and Temel, 2021).

2.3. Depreciation Approaches

In different definitions of depreciation, the purposes of allocating depreciation are expressed. Differences in the purpose of allocating depreciation have led to the formation of different approaches in depreciation allocation. The approaches and features of depreciation allocation are as follows (Sevilengül, 2016);

- Valuation Approach: According to this approach, depreciation refers to the decrease in the value of the fixed asset due to reasons such as use, passage of time or loss of importance. Therefore, in this approach, businesses adjust the registered value of the related asset by allocating depreciation. In other words, in this approach, depreciation has to be calculated in order to reveal the net balance sheet value of the asset.

- Consumption Approach: According to this approach, businesses create a stock of benefits when they acquire tangible fixed assets and the distribution of the decreases in these stocks of benefits over the period is expressed as depreciation.

-Renewal Approach: In this approach, depreciation is accepted as a tool that helps create a fund for the replacement of the fixed asset at the end of its economic life. With this approach, depreciation helps to preserve the capital used for the fixed asset over the life of the asset (due to auto financing).

- Allocation Approach: In this approach, depreciation refers to the distribution of the costs incurred for the acquisition of tangible fixed assets to the periods remaining in the economic life of these assets. In this approach, the amount of depreciation to be distributed over the periods can be calculated by deducting the residual value from the cost of the fixed asset and dividing the remaining amount by the useful life.

2.4. Factors Affecting Depreciation

To evaluate the amount of depreciation to be charged to an asset in an accounting period, the following three important factors must be considered (General Administration of Curriculum Design and Development in The Kingdom of Saudi Arabia, 2010):

- Cost of The Asset: It is very important to know the cost of an asset to determine the amount of depreciation that will be reflected in the profit and loss account. The cost of an asset includes all the basic costs required to make the asset usable, plus the invoice price of the asset minus trade discounts. In addition, shipping and insurance costs are included in the cost of purchase. However, financial expenses such as loan interest to purchase the asset should not be included in the cost of the asset.

- Estimated Life of The Asset: The estimated life of an asset generally refers to the number of years the asset can be used in the business. In order to estimate the useful life of an asset, the physical age of the asset, any repairs made, and factors of wear and tear must be determined. The economic life of an asset is arguably shorter than its physical life. While the physical life of an asset mostly depends on the internal policies of a business, such as intensity of use, repair, maintenance, and replacement, the economic life of an asset depends on external factors such as obsolescence caused by technological changes.

- Residual Value of The Asset: The residual value of an asset is the value expected to be realized when the asset is sold at the end of its useful life. This value must be calculated after subtracting disposal costs from the sale value of the asset. If the residual value is not significant, it is generally accepted as zero.

2.5. Methods of Depreciation

Many methods have been mentioned in the literature to account for the amount of depreciation. Businesses can take advantage of these methods by considering the features of the assets. Generally available depreciation methods;

- Straight-Line Method: It is calculated by calculating equal amounts of depreciation for each period, taking into account the useful life of the fixed asset. The straight-line method of depreciation is applied by applying the depreciation rate of the relevant fixed asset to the recorded value of that asset. This method is a time-dependent method that is applied equally in each period as long as there is no change in the residual value of the fixed asset, which is the simplest and most applied method among depreciation allocation methods (Özgür et al., 2021). The straight-line depreciation method is formulated as following (Akgül, 2004):

Depreciation Amount = Cost or Replacement Cost - Residual Value / Estimated Useful Life

- Diminishing Balances Method: In this method, more depreciation expense is allocated in the early years in which the depreciable asset is activated. According to the Turkish Tax Procedure Law, businesses that keep books on a balance sheet basis can use this method (Article. 315). Because this method allows more depreciation expenses to be allocated in the early years, businesses pay less tax in the early years. As a result, in this method, there is tax deferral in the early years.

- Units of Production Method: In this method, the depreciation amount is calculated based on the expected use or production amount of the asset (Bierman, 2010). The formula below is used to calculate depreciation according to the production quantity method (Alkan, 2023).

Depreciation Rate = Cost Value - Residual Value / Number of Units the Asset Will Produce During Its Estimated Economic Life

In addition to the previous methods, the Turkish tax law allows the use of other methods in special cases. These methods include:

-Extraordinary (Abnormal) Depreciation Method: This method is used for assets subject to depreciation, *"when they lose their value completely or partially as a result of disasters such as fires, earthquakes, and floods, or when their technical efficiency and value decrease due to new inventions, or when they become completely or partially unusable, or when they wear out more than usual because they are exposed to forced labor"* (Article. 317). It can be said that this method is applied much more today than in the past due to natural disasters.

-Depreciation in Mines (Depletion Method): The concession or cost values of the mines and quarries that lose their material value due to the decrease in the ore of the mines operated by an enterprise shall be destroyed separately for each mine or quarry, at the rates determined by the Ministry of Treasury and Finance, taking into account the applications of those concerned.

- Restricted Depreciation: A special period regulation introduced for passenger cars belonging to businesses (excluding passenger cars used for this purpose by those whose activities partly or wholly consist of leasing passenger cars or operating them in various ways). It's a type of depreciation that only applies to passenger cars. It is a method based on the principle of allocating the depreciation for a passenger car purchased in the middle of the period, not for the entire year it was purchased at the end of the period, but for the months it was used during that period (Özgür et al., 2021).

3. REGULATIONS ON DEPRECIATION IN TURKİYE, SAUDI ARABIA AND UNITED ARAB EMIRATES

In Turkiye, regulations regarding the depreciation process of tangible fixed assets are included in both tax law and 16 Accounting Standards.

In Saudi Arabia, depreciation of tangible fixed assets is regulated in tax and the zakat law, as well as in the 16 International Standards on Property, Plant and Equipment adopted by the Kingdom (Nurunnabi, 2017). The 17th article of the Tax and Zakat Law details depreciation expenses (Saudi Income Tax System, 2004).

No income tax imposed on businesses in United Arab Emirates before June 2023. Nevertheless, businesses with annual profits exceeding 375,000 UAE dirhams (US$100,000) were required to prepare their financial statements in accordance with IAS. When Federal Law No. (47) of 2022 was enacted to introduce tax on businesses, the issue of depreciation was not addressed in this law. Rather, all taxable businesses are required to prepare their financial statements only in accordance with IAS and therefore depreciation is regulated in accordance with IAS 16 (United Arab Emirates Ministry of Finance Corporate Tax Law, 2024).

3.1. Regulations on Depreciation in The Tax Laws of Turkiye, Saudi Arabia and United Arab Emirates

The issue of depreciation has an important place in Turkish tax law. Although explanations regarding depreciation transactions are included in many laws, including Business Tax Law, Income Tax Law, and Turkish Commercial Law, the basic issues related to depreciation transactions are discussed in Articles 313-321 of Tax Procedure Law (Deren and Yakupçebioğlu, 2006).

One of the most important issues addressed in great detail in the Saudi Tax Law is the issue of depreciation. The depreciation process is explained in detail in Article 17 of Saudi Income Tax and Zakat Law.

Turkish Tax Law and Saudi Arabia's Tax and Zakat Law have clarified many issues related to depreciation, such as the concept and subject of depreciation, depreciation conditions, determination of depreciable value, depreciation period, depreciation rates, and depreciation calculation methods.

On the other hand, depreciation is not detailed in United Arab Emirates' tax regulations. This is because United Arab Emirates does not impose any taxes on individual and business income before 2023. Although the tax law related to business profits has started to be implemented, the tax law has left the regulation of many accounting transactions such as depreciation to IAS.

In this context, the regulations on depreciation in the tax laws of Turkiye, Saudi Arabia and United Arab Emirates are compared with the help of tables.

Table 1. Comparison of the Regulations on Depreciation in the Tax Laws of Turkiye, Saudi Arabia and United Arab Emirates

Subject	Turkiye	Saudi Arabia	United Arab Emirates
Obligation to Depreciation	Not mandatory.	Not mandatory for businesses subject to tax. Mandatory for businesses subject to zakat.	There is no regulation on depreciation in the tax law.
Depreciable Tangible Fixed Assets	Although there is no definition of depreciation in the tax procedure law, Article 313 of the law provides certain conditions for a fixed asset to be depreciated. These conditions are listed below: - The fixed asset can be used in the business for more than one year, - The fixed asset is subject to wear and tear or impairment, - The tangible fixed assets are registered in the assets, - The value of the tangible fixed assets exceeds a certain amount (According to tax procedure law No. 490 for the year 2024, tangible fixed assets with a value less than 6.900 TL are not depreciated and recorded directly as expense), - The fixed asset considered as an immovable property. Tangible fixed assets that may be subject to depreciation are listed one by one in the tax law: 1- Real Estates 2- Machinery and Devices 3- High Technology Products	The definition of depreciation is included in the tax and zakat law. According to Article 17 of the Income Tax, depreciation: It is the reduction of the cost of assets depreciated or the systematic distribution of the historical costs of these assets over their production periods. Under the same article, the characteristics of tangible or intangible assets that may be depreciated are defined as follows: - The value of assets must decrease due to use, damage or obsolescence - The asset must be purchased to be used in production activities - The asset or a portion of it must be used to realize taxable income - The asset must be owned by the business or the taxpayer - The asset should be used for the purposes of the business. The assets that may be depreciated are listed one by one as follows: 1- Real Estate	There is no regulation on depreciation in the tax law.

	4- Transportation Vehicles 5- Biological Assets 6- Expenditures for Geological Research and Preparation for Extraction of Natural Resources 7- Intangible Assets.	2- Portable Industrial and Agricultural Buildings 3- Machinery, Devices, Computer Programs and Equipment 4- Geological Survey, Exploration and Preliminary Study Expenses for Natural Resource Extraction and Field Development 5- Passenger and Freight Vehicles 6- All Other Tangible and Intangible Assets Such As Furniture, Aircraft, Ships, Locomotives, Goodwill, etc. That Can Be Depreciated and Are Not Included in The Previous Groups.	
Depreciation of Lands	Depreciation is not allocated to lands and vacant spaces. If the land share is included in the registered value of the building, the value of the land is depreciated together with the value of the building.	Depreciation is not allocated to lands and vacant spaces. If land is purchased with a building on it, the value is reasonably apportioned between the land and the building to arrive at the separate value of the building.	There is no regulation on depreciation in the tax law.
Depreciation for Parts of Tangible Fixed Assets	There is no regulation on depreciation of assets by dividing them into parts. For this purpose, depreciation is calculated by considering the relevant asset as a whole.	If part of the asset is used to generate taxable income, depreciation can be allocated to that part of the asset.	There is no regulation on depreciation in the tax law.
Group Depreciation	The cost of assets whose value does not exceed the limit determined for the current year can be recorded as expense directly without being subject to depreciation. In the case of economic and technical unification, this limit is taken into account together. For example, integrated assets such as cups, forks, spoons, spatulas, knives, and ladles can be grouped and depreciated.	Depreciation can be calculated by applying the depreciation percentage determined for each group.	There is no regulation on depreciation in the tax law.
Monetary Value of Tangible Fixed Asset	In 2024, if the monetary value of the tangible fixed asset exceeds TL 6.900, it is subject to depreciation.	There is no specific monetary value that a tangible fixed asset must exceed in order to be depreciated. Any tangible fixed asset that meets certain conditions can be depreciated.	There is no regulation on depreciation in the tax law.

Depreciable Value	Cost value of the tangible asset.	Cost of The Asset – Residual Value	There is no regulation on depreciation in the tax law.
Borrowing Costs	Borrowing costs incurred to acquire the asset are added to the cost of the asset and depreciated over this amount.	No regulation has been made regarding the borrowing costs incurred to acquire the asset, therefore they are not added to the cost of the asset and no depreciation is allocated on this amount.	There is no regulation on depreciation in the tax law.
Residual Value of Tangible Asset	Depreciation is calculated based on the cost of the related asset and residual value is not taken into account in any case.	To find the annual depreciation amount, the residual value is taken into account and deducted from the cost value of the asset (the residual value should be estimated by a valuation expert).	There is no regulation on depreciation in the tax law.
Capacity or Value Increasing Expenditures	As long as no capacity or value increasing expenditure is made on the asset and the financial statements are not subject to inflation adjustment, there is no change in the cost value of the asset. In other words, capacity and value increasing expenditures are capitalized and depreciated.	Capacity and value increasing expenditures are capitalized and depreciated.	There is no regulation on depreciation in the tax law.
Depreciation Period	It starts in the year in which the tangible fixed asset is registered on the asset side.	It starts in the year in which the tangible fixed asset is registered on the asset side.	There is no regulation on depreciation in the tax law.
Duration of Depreciation	Determined by the Ministry of Finance: 1- Buildings, Constructions, Facilities 6-50 years 2- Machinery and Devices 2-25 years 3- High Technology Products 3-12 years 4- Transportation Vehicles 5 years 5- Biological Assets 2-40 years 6- Expenditures for Geological Research and Preparation for Extraction of Natural Resources 5 years 7- Intangible Assets 5-15 years	The Ministry of Finance does not determine a specific period for depreciation of assets, but determines instead only the depreciation rates. No rate is set for zakat and the annual amount of depreciation is determined by valuation expert based on the taxpayer's books and the condition of the asset.	There is no regulation on depreciation in the tax law.
Depreciation Allocation for Tangible Fixed Assets Held for Sale	Depreciation can be allocated.	Depreciation can be allocated.	There is no regulation on depreciation in the tax law.

Depreciation in Case of Selling the Depreciable Asset	If the depreciable asset is sold, depreciation can be calculated until the date of sale.	If the depreciable asset is sold, depreciation can be calculated until the date of sale.	There is no regulation on depreciation in the tax law.
Tangible Fixed Assets Acquired by Financial Lease	Tangible fixed assets acquired by finance leases are presented in the RIGHTS Account in the statement of financial position.	If the asset is leased and the owner stipulates that the assets be returned to him in the condition, they were in at the time of the contract at the end of the contract period, then it is permissible for the value of the asset to be depreciated during the contract period.	There is no regulation on depreciation in the tax law.
Value or Capacity Increasing Expenditures on a Leased Tangible Asset	Expenditures that increase the value or capacity of a leased tangible fixed asset are capitalized as intangible assets and depreciated over the lease term, or over 5 years if the lease term exceeds 5 years.	Expenditures to increase the value or capacity of a leased tangible fixed asset are added to the cost of the tangible fixed asset and depreciated.	There is no regulation on depreciation in the tax law.
Depreciation Methods	- Straight-Line Method - Declining Balances Method - Extraordinary Depreciation Method - Depreciation in Mines (Depletion Method) - Restricted Depreciation	Depreciation can be calculated for tax purposes by one of the following methods: - Straight-Line Depreciation Method - Depreciation in Mines (Depletion Method): This method is used in the case of natural assets such as oil wells, mines and quarries. The depreciation value is calculated based on the number of units of material removed from the asset in each period. This method refers to the reduction or depletion of the original content with its use. - Depreciation for Zakat Purposes: Is determined by the valuation expert based on the taxpayer's books and the condition of the asset.	There is no regulation on depreciation in the tax law.
Restricted Depreciation	It can only be applied to passenger cars on a monthly fraction basis and the depreciation amount that cannot be allocated in the first year is added to the last year's amount.	Not in use	There is no regulation on depreciation in the tax law.
Depreciation Rates	Depreciation is allocated based on the rates determined and announced by the Ministry of Finance. These rates cannot be changed. In	For tax, depreciation is allocated based on the rates determined and announced by the Ministry of Finance.	There is no regulation on depreciation in the tax law.

	case of application of the Declining Balance Method, the rate is double the Straight-Line Method rate, provided that it does not exceed 50%. The rates are determined as follows: 1- Buildings, Constructions, Facilities 2-25 % 2- Machinery and Devices 4-50 % 3- High Technology Products 8.33-33.33 % 4- Transportation Vehicles 20 % 5- Biological Assets 2-40 % 6- Expenditures for Geological Research and Preparation for Extraction of Natural Resources 20 % 7- Intangible Assets 6.66-20 %	For Zakat, depreciation is allocated based on the rates determined and announced by the valuation expert. 1- Real Estate 5% 2- Portable Industrial and Agricultural Buildings 10% 3- Machinery, Devices, Computer Programs and Equipment 25% 4- Geological Survey and Exploration Expenses and Preliminary Study Expenses for The Extraction of Natural Resources and Development of Fields 20% 5- Passenger and Goods Vehicles 25% 6- All Other Tangible and Intangible Assets Such As Furniture, Aircraft, Ships, Locomotives, Goodwill, etc. That Can Be Depreciated and Not Included in The Previous Groups 10%	
Depreciation Accounting	According to tax law, taxpayers are free to use direct or indirect methods. But according to the Uniform Chart of Accounts, the indirect method is adopted.	Direct or indirect method can be used.	There is no regulation on depreciation in the tax law.
Effect of Depreciation on Taxable Profit	According to the tax law, legally acceptable depreciation expenses are considered as an element that reduces profit in the determination of taxable profit.	According to tax and zakat law, legally acceptable depreciation expenses are considered as an element that reduces profit in the determination of taxable profit.	There is no regulation on depreciation in the tax law.
Effect of Depreciation on Deferred Tax	Deferred tax is not included in the tax law, therefore deferred tax is not taken into account in any case.	Deferred tax is not included in tax and zakat law, therefore deferred tax is not taken into account in any case.	There is no regulation on depreciation in the tax law.

Source: Turkish Tax Law, Saudi Income Tax Law, Saudi Zakat Law, United Arab Emirates Corporate Income Tax Law

3.2. Regulations on Depreciation in The Accounting Standards of Turkiye, Saudi Arabia and United Arab Emirates

Turkiye started the process of transition to IAS with the establishment of the Turkish Accounting and Auditing Standards Board (TASB) in 1994. However, this transformation process accelerated significantly after 2000 with Turkiye's efforts to join the European Union (Yünlü, 2020).

In response to this, IAS was not implemented in Saudi Arabia until 2017. Until 2016, Saudi Arabia had national accounting standards. The delay in adopting accounting standards in Saudi Arabia is due to many reasons; the most important of them is the religious and cultural environment that is characteristic of Saudi Arabia (Saudi Organization for Chartered and Professional Accountant, 2021). It can be seen that the adoption of IAS takes into account the national environment in both Turkiye and Saudi Arabia. However, the Turkish accounting standard for tangible fixed assets (TAS 16) is fully compliant with the international standard. Therefore, the application of depreciation according to the accounting standards is consistent with international standards. There is a simple difference between the Saudi standard and the international standard regarding the revaluation of tangible fixed assets (Saudi Organization for Chartered and Professional Accountant, 2023). However, depreciation practices are fully compliant with international standards.

United Arab Emirates has adopted IAS as specified in the version published by the International Accounting Standards Board, and there was no change in the standards when they were adopted in United Arab Emirates (IFRS, 2016). Therefore, depreciation transactions in businesses operating in United Arab Emirates are applied in accordance with IAS 16 - Property, Plant and Equipment.

Therefore, the most important depreciation regulations according to the accounting standards accepted in these three countries will be examined.

Table 2. Comparison of the Regulations on Depreciation in the Accounting Standards of Turkiye, Saudi Arabia and United Arab Emirates

Subject	Turkiye 16 TAS/ IAS 16 Adopted by Saudi Arabia/ United Arab Emirates IAS 16
Obligation to Depreciate	Mandatory.
Depreciable Tangible Fixed Assets	The specific tangible fixed assets that will be subject to depreciation are not named, but the general conditions that the assets must have in order to be depreciated are listed as below: - Tangible fixed assets acquired to be used in business activities for more than one accounting period, - Provide economic benefits to the business in the future, - Its costs must be reliably measurable.
Depreciation of Lands	Depreciation is not allocated to land and empty lots because it has an indefinite life.
Depreciation for Parts of Tangible Fixed Assets	Each part of the tangible fixed asset, which has a significant cost compared to the total cost, is depreciated separately.
Group Depreciation	If the useful life and depreciation method of a major part of a tangible fixed asset item are the same as the useful life and depreciation method of another major part of the same item, the parts can be grouped in determining the depreciation expense. In this case, the

	total depreciation expense will not be changed.
Monetary Value of Tangible Fixed Asset	Depreciation is allocated to a tangible fixed asset based on the principle of materiality rather than on financial value.
Depreciable Value	Depreciable value is the amount after deducting the residual value from the cost of the asset.
Borrowing Costs	Borrowing costs incurred in the acquisition, construction or production of the qualifying asset are included in the cost of the asset and depreciated over the total amount.
Residual Value of Tangible Fixed Asset	Depreciation is calculated based on the residual value of the depreciable asset. Depreciable Amount = Cost of The Asset - Residual Value
Capacity or Value Increasing Expenditures	Expenditures that increase the value or capacity of tangible fixed assets are capitalized and depreciated based on the re-estimated useful life of the asset.
Depreciation Period	The depreciation period is determined by the business. The depreciation period is determined according to the useful life of the asset. Estimates of useful life are updated each year.
Depreciation Allocation for Tangible Assets Held for Sale	Tangible fixed assets held for sale are not depreciated.
Depreciation in Case of Selling the Depreciable Asset	Depreciation is stopped when the depreciable asset is sold.
Tangible Fixed Assets Acquired by Financial Lease	Tangible fixed assets acquired by finance leases are recognized and depreciated under the related TANGIBLE FIXED ASSET Account in the statement of financial position.
Value or Capacity Increasing Expenditures on a Leased Tangible Asset	Expenditures that increase the value or capacity of a leased item of tangible fixed assets are capitalized as tangible fixed assets and depreciated over the shorter of the estimated useful life or the lease term.
Depreciation Methods	Methods that can be used; - Straight-Line Depreciation Method -Declining Balance Method - Units of Production Method If there is a significant change in the expected pattern of consumption of the future economic benefits of the a sset, the current depreciation method is reviewed and, if current expectations have changed, the depreciation method may be changed to reflect the new pattern of consumption.
Restricted Depreciation	All tangible fixed assets are subject to restricted depreciation on days rather than months basis, and unallocated depreciation in the first year is reflected in the financial statements in its accounting period, not in the previous year.
Depreciation Rates	Depreciation rates are freely determined by the businesses. Depreciation rates are based on the useful

	lives and production quantities of assets and can be changed every year. If the declining balance method is used, there is no obligation to comply with any coefficient. The rate is determined completely in line with the estimates of the business.
Depreciation Accounting	Direct or indirect method can be used.
Effect of Depreciation on Taxable Profit	Only taxable profit is used to determine the tax base. According to accounting standards, only commercial profit is relevant.
Effect of Depreciation on Deferred Tax	Temporary and permanent differences may occur. In other words, unallocated or over-allocated depreciation expenses may result in deferred tax.

Source: TAS 16 Tangible Fixed Assets, SOCPA IAS 16 Property, Plant and Equipment, IAS 16 Property, Plant and Equipment

4. COMPARISON OF FINANCIAL STATEMENTS PREPARED IN TURKİYE, SAUDI ARABIA AND UNITED ARAB EMIRATES ACCORDING TO DEPRECIATION PRACTICES

Depreciation of tangible fixed assets affects the business's statement of financial position and income statement. Depreciation appears in the income statement as an expense deducted from total income in order to calculate net income. In the statement of financial position, depreciation is considered as a reduction in the value of tangible fixed assets in order to calculate their net value. Therefore, depreciation reflects the condition and performance of the tangible fixed assets in the business (Demir, 2023). While the regulations on depreciation transactions in tax laws are prepared by considering the tax base rather than producing factual information, the regulations in zakat and accounting standards are made with the concern of producing factual information. Thus, the financial statements prepared in United Arab Emirates or for zakat purposes in Saudi Arabia are financial statements that present the true state of the business.

The differences between financial statements prepared in accordance with accounting standards in United Arab Emirates, Turkiye and Saudi Arabia or prepared for zakat purposes in Saudi Arabia on the one hand and financial statements prepared for tax purposes in Turkiye and Saudi Arabia on the other hand can be listed as follows:

1- Depreciation is required to be allocated in accordance with the accounting standards applied in Turkiye, Saudi Arabia and United Arab Emirates. There is no difference in accounting standards regarding depreciation in each of these three countries. Thus, the allocation of depreciation according to the accounting standards does not cause any difference in the statement of financial position and income statement between these three countries.

2- According to Turkish Tax Law, borrowing costs related to assets must be added to the cost of the assets, while according to Saudi Income Tax Law, these costs are not added to the cost. Therefore, the statement of financial position prepared according to Turkish Tax Law and the statement of financial position prepared according to Saudi Tax Law will be different. The value of assets is different in both tables, and the asset side will be larger in the statement of financial position prepared according to Turkish Tax Laws. At the same time, the depreciation value allocated in the income statement prepared according to Turkish Tax Laws will be more than the depreciation value allocated in the income statement prepared according to Saudi Tax Laws, so the profit will be lower.

3- According to Turkish Tax Laws, the residual value is not taken into account in depreciation calculations. In contrast, according to Saudi Tax Law, the residual value is taken into account in depreciation calculations. Therefore, the net value of the asset according to Turkish Tax Laws will be larger. For this reason, the net value of the asset in the financial statements and expense items in the income statement may change and the profit will increase according to Turkish Tax Laws.

4- The depreciation rates for tax purposes in Turkiye are different from the depreciation rates for tax purposes in Saudi Arabia. Therefore, the net asset value in the financial statements and expense items in the income statement will change.

5- According to Turkish and Saudi Arabian Tax Laws, a tangible fixed asset is depreciated annually, regardless of the date of acquisition. Therefore, the depreciation period does not cause differences in the statements of financial position or income statements.

6- According to Turkish and Saudi Arabian Tax Laws, an asset recorded in the tangible fixed asset group is depreciated even if it is held for sale or no longer in use. As a result, there are no differences in the statements of financial position and income statements.

5. CONCLUSION

Depreciation is one of the most important issues in accounting. Because depreciation refers to the process of allocating the costs of tangible fixed assets, which have an important place in assets especially in production businesses, to the accounting periods in which these assets will be used in the businesses. In this respect, depreciation directly affects the statement of financial position, which reflects the economic and financial position of the businesses. At the same time depreciation also affects the income statement, which reflects the performance of the businesses for a certain period. In this study, the regulations on depreciation in tax laws and accounting standards in Turkiye, Saudi Arabia, and United Arab Emirates were examined. As a result of examining the differences in depreciation policies between these three countries, it was found that the most significant difference is that the depreciation practice in United Arab Emirates is only in accordance with the IAS. In other words, there is no article in United Arab Emirates Tax Law that regulates depreciation. There is no difference between the accounting practices regarding depreciation according to the accounting standards applied in Turkiye, Saudi Arabia, and United Arab Emirates. In Saudi Arabia, in addition to the tax law there are also articles related to depreciation in the zakat law. Saudi Arabia's Income Tax Law applies only to foreigners working in Saudi Arabia and financial statements prepared in accordance with Saudi tax law do not reflect the reality. Saudi and Gulf Cooperation Council nationals working in Saudi Arabia are required to pay zakat. Financial statements prepared in accordance with the Saudi Zakat system are prepared to reflect the reality because Zakat is one of the principles of Islamic Sharia law and the process of calculating Zakat correctly is a religious requirement. While residual value is disregarded when calculating the depreciation of tangible fixed assets according to Turkish Tax Law, residual value is taken into account when calculating the depreciation of tangible fixed assets according to Saudi Arabia's Tax and Zakat Law. The depreciation rates are fixed and unchangeable in both Turkish and Saudi Tax Laws and are determined by the government. On the other hand, in Saudi Arabia, according to the zakat system, the depreciation rate is determined by valuation expert according to the taxpayer's books and the condition of the asset.

While businesses in Turkiye use straight-line method or the declining balance depreciation method to calculate depreciation, businesses that prepare their financial statements according to Saudi Arabia's Tax Laws can only use the straight-line method.

When applying accounting standards in Turkiye, Saudi Arabia, and United Arab Emirates, businesses determine the depreciation rate of tangible fixed assets according to their useful lives and businesses can use one of the stipulated methods in IAS 16.

AUTHOR DECLARATIONS

The study does not necessitate Ethics Committee permission.

The authors contributed equally to the entire process of the research.

The study has been crafted in adherence to the principles of research and publication ethics.

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