

# Extent of Commitment of Maritime Companies in Lebanon to Implementing the IAS 16

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## Abstract

The study examined the extent of commitment of maritime companies in Lebanon to implementing the International Accounting Standard (IAS) 16. It aimed at recognizing the extent to which maritime firms in Lebanon apply the International Accounting Standard (IAS) 16 by explaining the financial statements and their features and constituents. A five-point Likert style questionnaire was constructed as a study tool to collect information from the sample that consisted of 70 people who were accountants at maritime companies in Lebanon in addition to auditors of these companies. From the 70 questionnaires distributed, 63 were retrieved. The research concluded that maritime companies in Lebanon apply the IAS 16 in the income statement and the statement of financial position. The researchers recommended that the International Accounting Standards Board (IASB) should set up a clear and coordinated approach to deal with the issue of the periodic maintenance for ships, especially that the IAS 16 did not specify a preferred approach to settle this issue; rather, the IASB left it for the companies to choose the most convenient approach. They also recommended increasing disclosure of Lebanese maritime companies using the procedures followed in determining, depreciating and itemizing fixed assets in the financial statements.

**Keywords:** depreciation, dry-docking, fixed assets, International Accounting Standard 16, Lebanese maritime companies, revaluation

## 1. Introduction

The literature has little research done in the domain of implementing International Accounting Standards (IASs) and their impact on the financial statements of the maritime companies; particularly, the International Accounting Standard (IAS) 16 related to fixed assets, which is considered among the most essential standards that international accounting organizations have devised as this standard is concerned with accounting treatments for fixed assets which an organization owns to be used in the production process unless there exists another international accounting standard that allows another treatment. The importance of this standard lies in putting forth various methods to deal with fixed assets within the organization considering the importance of fixed assets in the production process of the organization and the impact of depreciation and the value of fixed assets on the information in the financial statements, which requires calculating and recording it away from bias. Implementing IAS 16 gives accuracy to information, which in turn reflects positively on the interest of all parties (shareholders, customers, suppliers, the government, etc). This would add more reliability to the financial statements. The study at hand examines the extent of implementing IAS 16 on the financial statements of shipping companies in Lebanon. It is a specialized scientific addition in the domain of implementing International Accounting Standards which opens the possibility of reinforcing these companies with suitable remarks and evaluation.

## 2. Literature Review

There are many studies in the literature that tackled the extent of commitment of companies to IAS 16. Piosik (2013) analyzed the impact of the value of revaluation on long-term tangible assets while adopting International Financial Reporting Standards (IFRS) and International Accounting Standard 16 in Poland. The study concluded

that ascending revaluation is positively correlated with a successful report on the company's performance and the changing performance in the following years. It also concluded that ascending revaluation is correlated with the quality of profits and its valuation, which reflects on the market value of the entity. Revaluation surplus is unrecognized and unallocated gains. These gains can be recognized when disposing revaluated assets by shifting the revaluation surplus to retained earnings according to IAS 16. Ongoing recognition can be conducted during the remaining time of the revaluated asset's useful life by transforming an amount equal to the difference between depreciation calculated on the book value of an asset after revaluation and depreciation calculated on the original cost of that asset to the retained earnings on an annual basis. Also, the difference in revaluation can be kept intact in the surplus account (Alexander et al., 2017). In some states, there were some areas that were non-compliant to IAS 16; namely, the revaluation model and the method of depreciation; not to mention that some external auditors did not recommend applying IAS 16 before the year 2008 (Ayoub & El-Mousawi, 2020), which is also verified by Naim (2016). The costs taken by a unit, such as maintenance and improvements, may lead to a modification in the book value of the asset or can be considered as expenses in the existing period taking reality and circumstances into consideration (Epstein & Jermakowicz, 2017). Some Nigerian companies that are listed in the stock market do not comply with IAS 16 Property, Plant and Equipment (Siyabola, Musa, & Wula, 2014). In Bangladesh, there is good compliance of some companies with IAS 16 Property, Plant and Equipment regarding the accounting of fixed assets (Siddiqua & Hasan, 2010). Meanwhile, Greek companies tend to implement IAS 16 Property, Plant and Equipment, but they do not use revaluation to measure these assets; instead, they are more inclined to measure them using the cost method. In this accord, companies that use the cost method comply with the requirements of disclosure more than companies that use the revaluation module (Ballas, Panagiotou, & Tzovas, 2014). When studying the extent of compliance of incorporated companies in Gaza Strip to applying IAS 16 Property, Plant and Equipment, results showed no compliance of these companies to implementing regulations of IAS 16 because of the many hindrances that bound implementing it. Also, there is no relationship between implementing IAS 16 and the size of the fixed assets or the size of the capital (Ghayada, 2008).

Siyam (2005) conducted a study to examine the extent of commitment of public incorporated industrial companies in Jordan to applying IAS 16 and its correlation with the net fixed assets. The study assured that there is a commitment to implementing the regulations of IAS 16. The study concluded that there is no relationship between this commitment and the net fixed assets and that there exist some obstacles that limit implementing IAS 16. Abu Aisha's study (2015) aimed at identifying the extent to which the Jordanian airline is committed to the application of the International Accounting Standard (IAS) 16 and its impact on financial performance. The study found that there exists a commitment to apply the IAS 16, "Property, Plant and Equipment", and that this commitment has an increasing or decreasing impact on the financial performance in terms of profitability and liquidity.

Mohamad Khaled's study (2016) aimed at identifying the extent to which corporate banks operating in the Syrian Arab Republic are committed to implementing the International Accounting Standard (IAS) 16. The study aimed to determine the extent of compliance of the corporate banks operating in the Syrian Arab Republic with the rules of the International Accounting Standard 16 (Property, Plant and Equipment, fixed assets) and to recognize the main difficulties that limit the commitment to the application of the rules of this standard. The results of the study indicated that the corporate banks operating in the Syrian Arab Republic do not comply with the International Accounting Standard (IAS) 16. It also showed that there is a range of difficulties that prevent the commitment to apply the IAS 16, the most important of which is the absence of formal authority or law that obliges companies to apply the standard.

There are some interesting developments in the field of tangible fixed assets as the diminishing depreciation method is sometimes used in companies. Drenthe's study (2009) aimed to examine the impact of using International Accounting Standards 16 and 38 in terms of the appropriate value of property, plant, equipment and fixed assets and their impact on investor decisions. The results revealed that property, plant and equipment are of inappropriate value after applying IAS 16. Istrate's study (2012) aimed to shed light on the extent of the impact of international accounting standards on the Romanian accounting rules for tangible assets, and their relationship or lack of it with tax rules, through the suitability of International Accounting Standard (IAS) 16 in the context of Romanian accounting rules and tax rules. The study concluded that organizations listed on the Bucharest Stock Exchange (BSE) sometimes used the accelerated depreciation method in accounting and that more than eighty percent of these organizations revalue buildings for tax reasons.

IAS 16 offers diverse options for revaluation of tangible fixed assets, whose fair value is hard to measure in an active market. This includes the value of replacement after depreciation or using income. If the company uses the

revaluation method, the fixed assets item exhibits the revaluation amount which is fair value at the date of revaluation from which any subsequent amassed depreciation and any subsequent amassed losses in the benefits of assets are deducted (IAS 16.31). Updating revaluation relies on the level of variation in the fair value of fixed assets under revaluation; additionally, it is adequate to revalue every 3 to 5 years (IAS 16.34). When one part of the fixed asset is revaluated, all other parts that belong to the same group should be revaluated all together to evade disclosing parts of the same group valued on different bases (IAS 16.36). When the book value of an asset becomes greater after revaluation, this increase is recognized as additional inclusive income and added to the owner's equity (IAS 16.39). If there is a resulting reduction in the value after revaluation, this decrease is subtracted directly from the revaluation surplus of the asset and, at most, the surplus-value of that asset (IAS 16.40). If the asset is composed of many constituent elements that are diverse in nature, such as a building that has machines and structures, it is appropriate to record each constituent in a separate entry to make its depreciation easy over diverse periods (IAS 16.44). The expected useful life and depreciation method of a substantial part of a fixed asset is similar to the estimated useful life and the depreciation method of another substantial part of the same item. The accountants in both Lebanon and Syria do not completely apply the International Accounting Standard (IAS) 16; nevertheless, they implement some different items between the two countries (El-Mousawi and Zrair 2014).

The cost of a tangible item should be recognized as a fixed asset when it is possible that future economic benefits related to that asset are expected to flow to the unit; it is possible to measure the cost of the item, documented through IAS 16.6. However, based on the importance record, fixed assets whose cost does not exceed a specific value in the stock (Ernst & Young, 2017), which is what paragraph IAS 16.8 declared when it mentioned replacement parts.

The current study is different from previous studies in the literature as it studies the impact of applying some paragraphs of the International Accounting Standard 16 related to spare parts and depreciation, and accordingly, this study came to measure this impact related to these two variables while previous studies had studied the entire standard without going through the details. In addition to that, the study includes all maritime companies in Lebanon, which is another distinction from previous studies. This study is the first of its kind in Lebanon that tackles the topic at hand.

### **3. Paragraphs of the IAS 16**

In March 1982, the International Accounting Standards Committee (IASC) issued the sixteenth International Accounting Standard, which is titled "Accounting Property, Plant and Equipment", which was reissued in December 1993 under the title "Property, Plant and Equipment". After structuring the International Accounting Standards Committee, and being replaced in 2001 by the International Accounting Standards Board, the Board adopted the International Accounting Standards issued by the Committee, including the International Accounting Standard 16, which included part of the International Accounting Standard 4 "Depreciation Accounting" issued in November 1975.

In December 2003, the International Accounting Standards Board (ISAB) issued the International Accounting Standard 16, as part of the first agenda related to technical projects. This standard has also replaced the instructions mentioned in three interpretations, namely No. 6 "Costs of Modifying Existing Software", No. 14 "Property, Plant and Equipment - Compensation for Impairment or Loss of Items" and No. 23 "Property, Plant and Equipment - Major Inspection or Overhaul Costs" (Arab Society of Certified Accountants-Jordan, 2012).

#### *3.1 Paragraph 8*

It is one of the paragraphs of the International Accounting Standard 16, and it is concerned with classifying spare parts as either supply or as property, plant and equipment. The eighth paragraph that was issued in 2005 was put on the agenda of the Interpretations Committee in April 2010, and this paragraph that is applied to the periods before January 2013, states the following:

Spare parts and services of equipment are usually treated as inventory and are recognized as profits and losses according to their use. However, the main spare parts and backup equipment can be classified as property, plant and equipment, when the company expects to use them within more than one period. Likewise, if spare parts and services of equipment can only be used in connection with an element of property, plant and equipment, then it is accounted for as property, plant and equipment (IASB Meeting Staff Paper, Agenda 16, 2010).

This paragraph was modified in May 2012 in response to the four issues –simplification of formulation, the definition of the term, reduction of application with retroactive effect, difficulty in determining the useful life of these parts – to become as follows:

Items such as spare parts, standby equipment and services of equipment are classified as property, plant and equipment when they meet the definition of property, plant and equipment; other than that are classified as inventory.

### 3.2 Paragraph 44

It is one of the paragraphs of IAS 16, and it is concerned with the depreciation of assets according to its components and under certain circumstances, as this paragraph stipulated:

“In certain circumstances, it is appropriate to load the total expenditures on the asset to the components of that asset and account for each component separately. This is the case when the components of the assets have a different production life or provide benefits to the enterprise in different patterns; thus, different rates and methods of depreciation must be used. For example, ships and their engines need to be handled as a separate, depreciable asset if the useful life of each is different (Proposed Improvement to International Accounting Standards, IAS 16, 2002:125).

This paragraph has been modified to be implemented in the period that started in July 2009. It stated:

“The company allocates the sum initially recognized in relation to the item of property, plant and equipment to its important parts and depreciates each part separately. For example, it may be appropriate to separately depreciate the ship’s hull and engines, whether they are owned or subject to a finance lease. On this basis, if the company acquires property, plant and equipment subject to an operating lease in which the company is the lessor, it is appropriate to depreciate separately the sums that are reflected in the cost of that item and are attributed to the terms of the lease contract and are similar to the market items” (Arab Society of Certified Accountants-Jordan).

### 3.3 Periodic Maintenance (Dry-dock) of Ships

- The International Maritime Organization (IMO) that met and issued Resolution No. A.744 (18) dated 04/10/1993, after the increase in the number of accidents at sea, issued binding directives for ships to maintain public safety and the environment, among which is periodic maintenance (Dry-Dock).
- Definition of maintenance and periodicity: The Resolution stipulated that the ship is obliged to undergo the annual inspection and examined at least twice within 5 years and between the first and the second inspection 36 months. The ship is given a certificate to that effect from the class.
- The annual inspection is a general without entering the dry dock.
- Inspection at least twice during the five years is a more accurate detection. The ship enters the dry dock for the hull, machinery, tanks, etc be inspected. The first inspection is called Intermediate-Survey and the second one is a Special Survey.
- Entry into any port in the world cannot be done without these certificates and others, but what concerns us here is maintenance in the floating or Dry-dock, which amounts to a large sum that sometimes exceeds 10% of the ship’s price.

### 3.4 Overview of the Maritime Companies in Lebanon

In Lebanon, there are 38 ships that hoist the Lebanese flag according to Port of Beirut Division (Appendix 1), about 30 of which are operating. The rest of the ships are either suspended for financial reasons, seized or put up for sale. These ships are owned and managed by 20 companies where there are companies that own more than one ship, and these ships operate in all commercial areas such as livestock, cars, fodder, containers, etc. The following table illustrates:

Table 1. Maritime companies in Lebanon

No.	Company	No. of ships	Usage
1	Murr Shipping SA.	2	Livestock
2	North and South	2	Pilot
3	Araco	1	Petrol
4	Braveheart Maritime Shipping	1	Goods
5	Alacia Maritime Limited	1	Goods
6	Barry Maritime Shipping Co.	1	Goods
7	Brave Warrior Maritime Shipping Limited	1	Goods
8	Nino Marine Limited	1	Livestock
9	Fafi Shipping ltd.	1	Livestock
10	Gigi marine Limited	1	Livestock

11	Talya Shipping line	3	Livestock
12	Mar jt	1	Petrol
13	Sahab Shipping SA	4	Livestock
14	Spiridon Shipping Company	2	Livestock
15	Med Wave Shipping	1	Cars
16	Dodi Shipping	1	Livestock
17	Beirut Pilot Station	3	Pilot
18	Med Star Shipping Company SA	1	Cars
19	Seawise Shipping Co	1	Cars
20	Tsakos Industrias Navales SA	1	Cars
	<b>Total</b>	<b>30</b>	

Source: Researchers' compilation based on information from Port of Beirut Division.

#### 4. Research Problem

Spare parts and maintenance are considered important features in the maritime companies in view of the needs of periodic and continuous maintenance for the ships (as relevant to the Maritime System). The eighth paragraph of the Standard (IAS16) obliges these companies to transport the spare parts and categorize them as fixed assets if there are two essential conditions. The first one is that the company expects to use these parts within more than one period, and the second one is that these parts should be used connectively with one of the property, plant and equipment items. IAS 16 specified how to categorize but did not specify the necessary procedures after categorizing, such as the method of depreciation of these parts wherein it is possible to devise a solution of which depreciating these parts, decreasing them or by following the obsolescence policy. It is possible to depreciate parts linked to assets that are expected to be used within a specific period or by obsolescing them. It is also possible to decrease the value of the spare parts on an annual basis. The eighth paragraph of IAS 16 did not depict an explicit procedure to approach these parts in the time of using them, which might limit the ability of the company's control over them. As for the depreciation of ships, the forty-fourth paragraph approaches this issue. It recommends that the ship be depreciated in portions, where some constituent portions of the ship have proportional importance to the total value of the ship, which might specifically affect the revenues costs, and consequently, the results of the business as a whole.

Thus the researchers had the following question in mind:

*To what extent do the maritime companies in Lebanon implement the International Accounting Standard (IAS) 16?*

From the above question, the following questions arise:

- Do the maritime companies in Lebanon implement IAS 16 in the income statement?
- Do the maritime companies in Lebanon implement IAS 16 in the statement of financial position?

#### 5. Research Hypothesis

Based on the questions of the research problem, the researchers have the following hypothesis to prove or disprove:

**H<sub>0</sub>: The maritime companies in Lebanon do not implement the International Accounting Standard (IAS) 16.**

From this hypothesis, the following sub-hypotheses arise:

H<sub>0,1</sub>: The maritime companies in Lebanon do not implement the International Accounting Standard (IAS) 16 in the income statement.

H<sub>0,2</sub>: The maritime companies in Lebanon do not implement the International Accounting Standard (IAS) 16 in the statement of financial position.

#### 6. Methodology

##### 6.1 Population and Sample Selection

The population of the study consists of all the accountants and auditors in the Lebanese maritime companies (that own ships with the Lebanese flag). The population of the study counts 70 accountants and auditors, and due to the small size of the population, the researchers used the Complete Census method for the purpose of accurate representation. Seventy (70) questionnaires were distributed among the study population, of which 63 were retrieved and were valid for analysis (90% recovery rate).

A number of key variables have been identified to describe the study sample, including (education, job / profession, years of experience) as shown in the following table:

Table 2. The respondents' distribution according to personal data

Variable	Category	Frequency	Percent
Education	Bachelor Degree	36	57.1
	Master's	27	42.9
Profession	Accountant	39	61.9
	Financial Manager	8	12.7
	Certified Accountant	16	25.4
Years of experience	Less than 6 years	10	15.9
	6 – 10 years	19	30.2
	More than 10 years	34	54.0
Total		<b>63</b>	<b>100.0</b>

It is clear from the above table that 57.1% of the respondents have a Bachelor's Degree, while 42.9% of them have a Master's Degree. As for their distribution by job, 61.9% of them are accountants, 12.7% of them are financial managers, and 25.4% of them are certified experts. As for their distribution according to years of experience, 15.9% have less than 6 years of experience, 30.2% have 6-10 years of experience, while 54% have more than 10 years of experience. These percentages are reassuring since more than half of the sample (54%) have more than 10 years of experience which will add to the reliability of the responses.

### 6.2 Instrumentation

A five-point Likert style questionnaire was devised as the study tool and the responses represent the level of agreement with the corresponding item as shown in the following table:

Table 3. The scale ranges of the five-point Likert Style (Mean)

Answer	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Degree	5	4	3	2	1

It is clear from Table 3 that the item to which the answer is "Strongly Agree" takes a score of (5), while the paragraph whose answer is "Strongly Disagree" is given the score (1), while the rest of the answers range between 1 and 5.

Depending on the value of the mean for each of the items, the level of the result of each item is determined, and this expresses the attitude of the study sample toward these items. Whenever the mean is greater than the complete average expressed in value (3), it indicates that there is a greater approval level on the questionnaire items. This indicates a positive attitude towards the items. Whereas, if the mean is equal to or less than the value (3), this indicates that there is a greater level of disapproval of the study sample on items, and this indicates a negative or weak attitude towards the items.

### 6.3 Validity of the Study Tool

The researchers calculated the correlation coefficients between the degree of each item and the total degree of the domain to which the item belongs. Table (4) shows the results of validating the internal consistency of the study tool.

Table 4. Correlation coefficient between each item and total score of the domain. (N=30)

First Domain			Second Domain		
No.	Corr. Coefficient	Sig	No.	Corr. Coefficient	Sig
1	.708**	0.000	1	.539**	0.002
2	.730**	0.000	2	.597**	0.001
3	.379*	0.039	3	.483**	0.007
4	.874**	0.000	4	.689**	0.000
5	.550**	0.002	5	.586**	0.001
6	.501**	0.005	6	.580**	0.001
7	.528**	0.003	7	.746**	0.000
			8	.786**	0.000

Note. \*\*Prob. <0.01, \* Prob. <0.05.

It is clear from Table 4 that all items of the study tool have a statistically significant correlation at the significance level of 0.01 and the significance level of 0.05, with the overall degree of their domains, where the correlation coefficients for these items ranged between 0.379 and 0.874. This indicates the existence of the validity of internal consistency in the items of the study tool, which supports the validity of the data collected from the sample.

#### 6.4 Reliability of the Study Tool

It is clear from Table (5) below that the value of the Cronbach's Alpha for the whole questionnaire items is 0.789, and this indicates that there is reliability in the study data. The value of the modified correlation coefficient (Spearman-Brown) for all of the questionnaire items is 0.885, indicating that there is reliability in the study data, which supports the validity of the data collected from the study sample.

Table 5. Cronbach's Alpha and Guttman Split-Half Coefficient (N=30)

The domain	Cronbach's Alpha		Split-Half	
	No. of Items	Cronbach's Alpha	Correlation Between Forms	Guttman Split-Half Coefficient
First Domain	7	.701	.823	.903
Second Domain	8	.764	.710	.827
All items	15	.789	.804	.885

## 7. Testing the Hypotheses

**H<sub>0</sub>: The Maritime companies in Lebanon do not implement the International Accounting Standard 16.**

From the above hypothesis, the following sub-hypotheses arise:

**H<sub>0,1</sub>: The Maritime companies in Lebanon do not implement the International Accounting Standard 16 in the income statement.**

**H<sub>0,2</sub>: The Maritime companies in Lebanon do not implement the International Accounting Standard 16 in the statement of financial position.**

### 7.1 First Sub-Hypothesis

To verify the first sub-hypothesis, the researcher calculated the mean, the standard deviation, the relative weight, and the order for each item of the first domain, "The impact of Accounting Standard 16 on the income statement", and verified the mean of the participants' responses against the value 3 that expresses neutrality using (the One-Sample T-Test). Table 6 shows the results:

Table 6. Result Analysis of the first sub-hypothesis. (N=63)

Items	Mean	Std. D	Relative weight	T-test	Sig.	Rank
1. The Lebanese shipping companies add a percentage of the Dry-Dock in the financial year according to the period covered by this Dry-Dock in the income statement.	3.70	0.61	74.0%	9.05	.000**	7
2. The Lebanese maritime companies consider the ship's maintenance as expenses and record it in the income statement when it occurs since it maintains, and does not increase, the valued typical performance of the asset.	3.79	0.57	75.9%	11.00	.000**	6
3. If the revaluation of the ship resulted in a decrease in the recorded value, this reduction should be recognized as expenses in the income statement if there was no surplus in the revaluation of the same asset.	4.10	0.64	81.9%	13.57	.000**	1
4. The total accumulated depreciation of the revaluated fixed assets is recalculated in accordance with the change in the asset's book value, such that this value equals that of the evaluation.	3.95	1.01	79.0%	7.51	.000**	4
5. Profits and losses brought about by the elimination of one item from the property, plant and equipment should be identified by the difference between the net return of the elimination and the book value of the asset. This difference should be recognized either as profit or as an expense in the income statement.	3.97	0.84	79.4%	9.13	.000**	3
6. Spare parts and equipment service are often considered as inventory and recognized as profit or loss depending on their usage.	3.89	0.63	77.8%	11.29	.000**	5
7. Lebanese maritime companies depreciate revaluated assets in the same way they were depreciated before.	4.10	0.78	81.9%	11.19	.000**	1
All items	3.93	0.39	78.5%	19.01	.000**	

As evident from the above table, the two items (3 and 7) that state: “If the revaluation of the ship resulted in a decrease in the recorded value, this reduction should be recognized as expenses in the income statement if there was no surplus in the revaluation of the same asset” and “Lebanese maritime companies depreciate revaluated assets in the same way they were depreciated before” came in first place with a relative weight of 81.9%, as the mean of the sample’s responses on these items is 4.1 out of 5, which is greater than the neutral value 3. While the value of T calculated is 13.57 for item 3 and 11.19 for item 7, which are greater than T-Tabular at the significance level 0.05. This means that there is an increase of statistical significance in the mean of the sample’s responses against the neutral mean. Accordingly, the Lebanese maritime companies recognize the reduction in the recorded value as an expense in the income statement if there was no surplus in the revaluation of the same asset. Also, they depreciate revaluated assets in the same way they were depreciated before.

As can be noted from the above table, the mean of the remaining items (1, 2, 4, 5 and 6) ranges from 3.70 to 3.97 out of 5, which is greater than the neutral value 3. Also, the relative weight for the same items ranges from 74% to 79.4%, while the value of the T-calculated for these items ranged from 7.51 to 11.29 at the significance level 0.05. This means that there is an increase of statistical significance in the mean of the sample’s responses against the neutral mean.

In general, the mean of the participants’ responses on all the items of the first domain was 3.93 out of 5, with a relative weight of 78.5%. Also, the value of T calculated is 19.01, which is greater than T-Tabular at the significance level 0.05. This means that there is an increase of statistical significance in the mean of the sample’s responses against the neutral mean. Accordingly, we conclude that the Lebanese maritime companies apply IAS 16 in the income statement, and therefore the first hypothesis is rejected.

### 7.2 Second Sub-Hypothesis

To verify the second sub-hypothesis, the researcher calculated the mean, the standard deviation, the relative weight, and the order for each item of the second domain, “The impact of Accounting Standard 16 on the statement of financial position”, and verified the mean of the participants’ responses against the value 3 that expresses neutrality using (the One-Sample T-Test). Table 6 shows the results:

Table 7. Result Analysis of the second sub-hypothesis. (N=63)

	Items	Mean	Std. D	Relative weight	T-test	Sig.	Rank
1.	The Lebanese maritime companies recognize an asset when future economic benefits are anticipated, and it is possible to measure this asset reliably.	4.08	0.70	81.6%	12.19	.000**	3
2.	The Lebanese maritime companies classify fixed assets as separate parts in accordance with the useful life of the asset.	4.03	0.57	80.6%	14.44	.000**	5
3.	The Lebanese maritime companies recognize the spare parts of a ship as an asset if they are expected to be used for more than one period.	4.19	0.67	83.8%	14.13	.000**	1
4.	The Lebanese maritime companies record the asset (ship) according to the historical cost.	4.02	0.52	80.3%	15.41	.000**	6
5.	The Lebanese maritime companies depreciate the ship according to the parts classified as fixed assets.	4.14	0.62	82.9%	14.67	.000**	2
6.	The rates of depreciation for every part are prepared according to the expected duration of its use.	4.06	0.59	81.3%	14.25	.000**	4
7.	Lebanese maritime companies record the dry dock costs in a statement of high-cost repairs, which should be divided into several financial cycles.	3.86	0.82	77.1%	8.29	.000**	7
8.	Lebanese maritime companies record the surplus that results from revaluation under the surplus revaluation entry in the statement of financial position.	3.63	0.58	72.7%	8.74	.000**	8
	All items	4.00	0.30	80.0%	26.15	.000**	

Note. \*\*Prob. <0.00. T-tabular at degrees of freedom 62 is 1.99.

As evident from the above table, item (3) that states: “The Lebanese maritime companies recognize the spare parts of a ship as an asset if they are expected to be used for more than one period” came in first place with a relative weight of 83.8%, as the mean of the sample’s responses on this item is 4.19 out of 5, which is greater than the neutral value 3. Also, the value of T calculated is 14.13, which is greater than T-Tabular at the significance level 0.05. This means that there is an increase of statistical significance in the mean of the sample’s responses against the neutral mean. Accordingly, this means that the Lebanese maritime companies recognize spare parts of the ship as an asset if they are expected to be used for more than one period.



As can be noted from the above table, the mean of the remaining items (1, 2, 4, 5, 6, 7 and 8) ranges from 3.63 to 4.14 out of 5, which is greater than the neutral value 3. Also, the relative weight for the same items ranges from 72.7% to 82.9%, while the value of the T-calculated for these items ranged from 8.29 to 14.67 at the significance level 0.05. This means that there is an increase of statistical significance in the mean of the sample's responses against the neutral mean.

In general, the mean of the sample's responses on this item is 4 out of 5 with a relative weight of 80%. Also, the value of T calculated is 26.15, which is greater than T-Tabular at the significance level 0.05. This means that there is an increase of statistical significance in the mean of the sample's responses against the neutral mean. Accordingly, we conclude that the Lebanese maritime companies apply IAS 16 in the statement of financial position, thus the second hypothesis is rejected.

The researchers believe that the results came as such since some of these companies are joint-stock companies and they are committed to the International Accounting Standards to attract foreign investments. Thus, their financial statements are comparable at all times and in all places, which will encourage investors to make suitable decisions. After interviews with companies from the sample, the researchers found that some of them are family-owned and are eager to change to joint-stock companies; thus, they implement the International Accounting Standards.

The family-owned sample verified that they implement the IAS 16 since an investor will be able to compare the efficiency and profitability of their companies to others around the world through the income statement. They also verified that an investor will be able to compare the liquidity and solvency of their companies to others around the world through the statement of financial position. As such, these companies are able to attract foreign investments.

## 8. Conclusions and Recommendations

After going through the results of the statistical analysis of the questionnaire, the researchers concluded that maritime companies in Lebanon implement the International Accounting Standard 16 both in the income statement and in the statement of financial position.

The researchers had a set of recommendations as follows:

- It is necessary that the International Accounting Standards Board should set up a clear and coordinated method to address the periodic maintenance of ships, to increase the possibility of comparing and understanding financial data by following the most appropriate and reliable method for maritime shipping companies, especially as International Accounting Standard 16 did not specify a preferred method of treatment but rather left the companies to choose the appropriate basis.
- It is necessary to increase the disclosure of the Lebanese maritime shipping companies on the principles used in determining depreciation and detailing fixed assets in the financial statements.
- The Association of Certified Public Accountants in Lebanon should ask all experts to apply the requirements of International Accounting Standard 16 in terms of treatment for maintenance and depreciation and to submit reports on the obstacles to applying the standard and revaluation of ships according to the fair value to reach a suitable method for all maritime shipping companies in Lebanon.
- There should be coordination between the Lebanese agricultural companies and the Association of Certified Public Accountants to enhance the accountants' competence by holding training sessions that are in line with recent developments in methods of measuring vital changes in physical assets that reflect the fair value in the financial statements according to the International Accounting Standards.
- The government should develop marine accounting curricula and introduce them into educational programs of universities, by adding a new major under the title "Marine Accounting", which helps those who freshly join the market to fit in easily.

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