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DIPLOMA THESIS

FINANCIAL STATEMENTS AND THE PROCESS OF DECISION MAKING IN SHIPPING COMPANIES

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Abstract

This thesis discusses the analysis of the financial statements and the relevance of the financial statements; the use of shipping companies is depicted. Shipping is one of the key segment of the world economy and plays a significant role for the transportation of goods and resources. So the use and especially the interpretation of financial data assume such a crucial role to guarantee the solidity and profitability of shipping companies to such a highly capital demanding sector. The financial statements are very genuine in portraying the representation which may be deemed essential for every strategic management decision as regards the company's financial position. In this regard, the present paper examines the manner in which the shipping firms use their financial reports in managing their profitability, efficiency, leverage and liquidity. On the other hand, the risks the companies are exposed to are brought out as well as effort they make to influence their financial prospect.

Αυτή η διατριβή εξετάζει την ανάλυση των οικονομικών καταστάσεων και τη σημασία τους, όπως αυτές χρησιμοποιούνται από ναυτιλιακές εταιρείες. Η ναυτιλία αποτελεί έναν από τους βασικούς τομείς της παγκόσμιας οικονομίας και διαδραματίζει σημαντικό ρόλο στη μεταφορά αγαθών και πόρων. Συνεπώς, η χρήση και ιδιαίτερα η ερμηνεία των οικονομικών δεδομένων αποκτούν κρίσιμη σημασία για τη διασφάλιση της σταθερότητας και της κερδοφορίας των ναυτιλιακών εταιρειών σε αυτόν τον εξαιρετικά απαιτητικό από πλευράς κεφαλαίων τομέα.

Οι οικονομικές καταστάσεις είναι πολύ αυθεντικές στην απεικόνιση της κατάστασης, η οποία θεωρείται απαραίτητη για κάθε στρατηγική διοικητική απόφαση σχετικά με τη

χρηματοοικονομική θέση της εταιρείας. Στο πλαίσιο αυτό, η παρούσα εργασία εξετάζει τον τρόπο με τον οποίο οι ναυτιλιακές επιχειρήσεις χρησιμοποιούν τις οικονομικές τους αναφορές για τη διαχείριση της κερδοφορίας, της αποδοτικότητας, της μόχλευσης και της ρευστότητάς τους. Από την άλλη πλευρά, παρουσιάζονται οι κίνδυνοι στους οποίους εκτίθενται οι εταιρείες, καθώς και οι προσπάθειες που καταβάλλουν για να επηρεάσουν τις οικονομικές τους προοπτικές.

Keywords: Financial statements, Shipping companies, Profitability, Leverage, Liquidity, Balance sheet ,Risk management, Strategic planning, Cash flow ,Viability

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Introduction

Financial statements give the most accurate records of the financial position and performance of any organization. It is even more important when it comes to shipping, as a key area of investment, is characterized by big amounts of money, as well as macro and micro factors defining the attractiveness of the business. It is important for investors, creditors, regulators and management to evaluate the financial performances of shipping companies. This is the major reason they have to make numerous decisions including investment decisions, loan decisions, compliance with set regulations and even strategic planning (Lessambo, 2018).

The purpose of this dissertation is to examine the influence of financial statements on decision making by shipping firms. The study is conceived to illustrate the use of

various financial statement elements: balance sheet, income statement, cash flow statement and statement of retained earnings in managing strategic, operations and financial strategies. It also examines the roles that the corporate organizations assists in reducing risks, and improving their financial performance in issues that concern the subject of financial data (Yhip & Alagheband, 2020).

A major share of the world trade is in the shipping of goods and raw materials across borders. This is due to the fact that this industry is capital intensive, and most of the companies in the industry need big amount of capital to purchase and maintain vessels. Besides, the industry is exposed to numberOf risks including fluctuations in fuel prices, changes in international trade policies and regulations on the environment. These uncertainties necessitate that the shipping firms have sound financial structures to absorb uncertainty shocks (Stobierski, 2020).

According to Dr. Ian Gamble, the introduction of the financial statements afford companies a structured way of presenting their financial details to those concerned. These are legal and mandatory papers that contain key information about a firm's balance sheet, income statement as well as cash flow statement. From the above figures, stakeholders are able to determine how much profitable, liquid, solvent or efficient a particular firm is. In the shipping industry, such financial ratios are effective in determining the ability of a company to carry on its operations, to invest in new vessels, and to meet its obligations (Baltova, 2023).

The primary research question of this dissertation is: how do shipping companies employ the financial statements data in their decision making; The study focuses on several key areas:

1. 1. To know the role of balance sheets in the evaluation of financial status of a shipping company. A balance sheet is more of a picture of a business at a given time offering details of the company's assets, liabilities and shareholders equity. This section will examine the roles of balance sheets in managing the levels of shipping firms' financial leverage, monitoring assets, and general financial position.
2. To understand the place of the income statement in the analysis of the operating performance of a given organization. The income statement shows the company's earning capacity for a given period of time through listing of the company's revenue, the expenses incurred to arrive at the bottom line figure of

the net income. To shipping companies, the income statement is an important tool used in checking the profitability of shipping routes, managing cost and operations of the company effectively.

3. Towards that end, this paper aims to analyze the significance of the cash flow statement in the management of liquidity. Cash flow statements break down the cash flowing into and out of a company into three main categories: functions, expansions, and funding processes that are involved in organizations. Shipping companies have to give importance for the cash flow management because they need many working capital to support day to day operations, to maintain vessels and to invest for new ships. This part of the study will analyse how shipping companies employ their cash flow statements to ensure adequate liquidity to meet short-term & long term financial commitments.
4. In order to assess the role of the retained earnings statement in long-term financial planning. Through the retained earnings statement business can determine the amount of profit retained after the operation and is available for reinvestment. In the shipping industry, retained earnings are integral sources of internal funds, which can be employed for the purpose of increasing the fleet, paying off debt or for carrying out any other large investment. This section will therefore discuss the manner in which these shipping firms make decision on the retained earnings as well as how the decision affects its growth and financial stability.
5. To explain how the notes of the following financial statements provide further information. The accompanying notes to the financial statements contain some specifics on accountances, contingencies, and other important points. In this dissertation, it will be demonstrated how these notes assist stakeholders to better understand the position of financial health of the shipping company and thus make better decisions. But to conduct a sweeping investigation on how statements affect major decisions, is a little more ambitious. In seaborne operations and businesses, decision making entails key areas such as; number of vessels, routes, voyage chartering, and financing. This dissertation will analyze how different financial metrics from the statements guide these decisions, helping companies gain a competitive edge and ensure long-term sustainability.

In order to understand why there are several reasons to understand how financial statements are useful in relation to different decision making procedures one has to take the following into account. First, it shows what has emerged from the fact that the financial information is more useful for the enhancement of the companies' financial condition. It also empowers the investor and creditors to decide most efficiently on the amount of capital and credit to extend on each project/venture. Furthermore, the requirement enables the performance of surveillance through relaying of the industry's financial health and checking compliance with reporting standards.

This study also has the following practical implications in the management within the shipping companies. When the managers can understand their financial statements to the teeth, they will be in a better place to respond to this questions and ensure their working and strategic decision are line with the financial goals and aspirations of the organisation. Such positioning is more specifically required in industries as volatile and sensitive, as shipping, in which the balance sheets and working capital can be decisive for business viability, not to mention growth.

To achieve the objectives of this study the cross-sectional research design using both quantitative and qualitative data collection instruments will be used. The quantitative analysis in this research will involve the use of financial ratios and trends by the shipping companies in their balance sheets, income statements, cash flow statements and retained earnings statements. Semi structured interviews shall be conducted with financial managers, auditors, and industry analysts to explore the comprehension of the practice use of financial statements.

This dissertation is structured as follows:

- **Chapter 1:** Background to the Study – This chapter provides a background to the study in terms of highlighting prior literature that presents different kinds of research on financial statements and decision making with emphasis in the shipping industry.
- **Chapter 2**: Advantages of financial statements – Describes the balance sheet, income statement, statement of cash flow, statement of retained earnings with emphasis on their importance to shipping firms.
- **Chapter 3**: Auditing and Financial Reporting Standards – In this chapter, the author emphasizes the key aspects of auditing practice and financial reporting standards specifically with respect to the shipping industry.

- **Chapter 4:** Management Decisions and Control in Shipping Companies – It shows how financial information is utilized in management decisions; strategic, operational and financial.
- **Chapter 5:** Data Analysis and Findings – Summarizes the study findings for quantitative and qualitative analysis made in this study.
- **Chapter 6:** Discussion and Conclusion – This chapter brings together all the findings, considers the implications, and provides recommendations for practice in the industry and for research.

The companies in the shipping sector rely on financial statements in making their various decisions. These statements give special information that leads to the improvement of the performance and heath of the company to its stakeholders hence enabling them to take responsible decisions that affect the strategic control of a company. Presenting the findings of this dissertation, it will be possible to draw attention to the necessity of financial statements for the shipping industry and indicate directions for altering its financial decision-making approaches.

Chapter 1: Basic Financial Statements

Every company needs financial statements as key documents that provide current and historical information in and outside of the organization. The three key financial statements are the Balance Sheet, the Income Statement, and the Cash Flow Statement. This section will focus on the Balance Sheet, looking closely at its key components: have its assets, liabilities and shareholders’ equity statements.

1.1 Balance Sheet

A balance sheet also known as the statement of financial position is a summary of a company’s financial statement at a specific time. It outlines the company's assets, liabilities, and shareholders' equity, following the basic accounting equation:

Assets = Liabilities + Shareholders' Equity

This equation points out that all that any company has (assets) is financed by either a loan (liabilities) or capital from shareholders (equity). Knowledge of Balance Sheet items is important in assessing the financial liquidity, operational efficiency, and solvency of a particular enterprise.

1.1.1 Assets

Assets are realized through past operations of a business, and it is expected that they will yield benefits in the future. These assets are usually divided into two main categories: non-current tangible and intangible assets along with current tangible and intangible assets.

- **Non-Current Assets**:

It is an investment that aims to be utilized for more than one year and has not been fully recognized as cash at the time when its user reports the financial year. They are designed for use over a few years and may consist of property, plant and equipment (PP&E), patents, copyrights, trademarks and long-term investments. For instance, in shipping firms the non-current assets would be ships, docks, and long-term rights to use dockages (Cote, 2020).

Non-current assets are also helpful in the operations of a company since they supply the proper organizational characteristics for long-terns business activities. Depreciation emerged as an account for non-current assets particularly tangible fixed assets such as ships whereby the cost is distributed in the useful life so as to balance the decline in physical and economic value of the ships (CFI Team, 2018).

Current Assets:

Trade receivables, tobacco inventories, other inventories, and prepaid expenses are resources that will be turned into cash or used up within the next twelve months or within the length of the business cycle whichever period is longer. These are such things as cash and money equivalents, outstanding accounts, raw materials and stocks, and other assets that will be converted into cash within a year. In the shipping industry, current assets may encompass receivables due from other shippers or freight clients as well as other inventory such as fuel or spares.

The elements of working capital are valuable for preserving flexibility in Management Company’s operations and for repayment of the short-term liabilities. The management of current assets makes it possible to avoid problems in meeting liquidity requirements

in the course of business and ensures the support of continuous daily operations (Cote, 2020).

1.1.2 Liabilities and Shareholders' Equity

Liabilities are the company's account with others or the rights of creditors over the company's property. Like assets, liabilities are divided into two categories: some of these we have classified under non current liabilities and there are others that have been classified under current liabilities depending on the time period.

- **Non-Current Liabilities:**

Non-current liabilities are those debts that the company believes would take more than one year to pay off. Some examples of non-currnt liabilities are long-term debt, bonds payable, deffered tax liabilities and pensions obligations. In the case of shipping companies non-current liabilities might be loans that are used to finance ships which are paid back over a long term (Agarwal, 2024).

Non-current liabilities have a huge interest cost and managing this element is important because uncontrolled can lead to solvency. Many long-term debt contracts contain some covenants which limit the rights of the firm hence as the financial managers it is responsibility to maintain an optimum level of debt (Conrad, 2024).

- **Current Liabilities:**

Accounts payable are the short term debts due with in a period of 1 year. These are accounts such as payable, overdrafts, accrual, and any more fixed obligations within short periods. In shipping current liabilities may include amounts due to the suppliers, employees' salaries and other accruals which are payable within the current period. Controlling current liabilities is an efficient predictor of a company's ability to solve short-term financial problems. Accounting deals with proper management for the company to be in a position to discharge its short term responsibility without strain. Conditions within the level of current liabilities more than the level of current assets may inspire certain issues with the liquidity (Yhip & Alagheband, 2020).

Management of the current liabilities is an essential aspect of an organization to assess the short-term financial position of the company. Proper management of current liability makes it easier for a business organization to pay its short-term debts without a lot of complications. Current liabilities greater than current assets might imply that the organisation might have solvency issues as Yhip and Alagheband, (2020) pointed out.

1.1.3. Shareholders' Equity

The shareholders' equity refers to the owners' claim on the residual interest in the firm after all its accounts have been undergoing liability reduction. Share capital comprises of common stock, paid in surplus, accumulated reserves, retained earnings, and other unallocated revenues, gains and comprehensive incomes. In its simplest form it is therefore the net asset position as viewed from the shareholders' side of the organization.

- **Common Stock and Additional Paid-In Capital:**

These are the amounts raised from the issue of shares to the public by the company. This capital is permanent and secure source of funds used for financing permanent investments and acting as a buffer against unexpected losses (Accounting Insights Team, 2024).

- **Retained Earnings:**

This is the sum total of net income that has been accumulated over the financial period and which has not been paid out as a dividend. It has also evidenced its role as part of the shareholders' equity since retained earnings contain information on its ability to invest tomorrow and to make other provisions (McCamish, 2021).

- **Other Comprehensive Income:**

This I as the items such as foreign currency translation adjustments that are excluded from the net income, and the gains or losses that have not been realized on certain investments (Averkamp, 2024).

Finance literatures define shareholders' equity as the residual amount that shareholders have in their account after all assets of a business organisation have been liquidated. Sustainable levels of equity mean that the organization is well funded and can responsibly take on various risks and can seize various opportunities for development.

1.1.4. Net Assets

Net assets which also may be called equity or net worth, is the amount arrived at after deducting liabilities from total value of assets. In other words, net assets means the financial solvency of a company wherein the position reflected explains how the total assets outweigh the total liability figure. This type of analysis represents an essential measure for evaluating the ability of a company to continue its activity and expand it in the long run.

Net assets can be calculated using the formula:

$$\text{Net Assets} = \text{Total Assets} - \text{Total Liabilities}$$

This equation gives a clear picture of what the company owns in terms of fixed assets which are owned free and clear. For example, $10,500,000 as total assets and $5,000,000 as total liabilities, then the organization's net assets will be $5,500,000. This is specifically true in for-profit organisations where net assets may be used interchangeably with shareholders' equity. This figure also contains the retained earnings that are the earnings that the business entity intends to reinvest in the business rather than use to pay some dividends to the shareholders. They reflect the residual ownership in the business and thus refer to that proportion of the company's assets that belongs to shareholders (Agarwal, 2024 ; Conrad, 2024).

For non-profit organizations, the term "net assets" is used more extensively to represent the organization's financial standing. Unlike for-profit entities, which focus on shareholder returns, non-profits use net assets to show how well they can meet their missions. Non-profits typically categorize their net assets into unrestricted, temporarily restricted, and permanently restricted funds, each with different conditions and purposes (Accounting Insights Team, 2024).

Net assets are crucial for several reasons:

1. **Indicator of Financial Health**: The high net assets may be regarded as the ability of the determined company or organization to fund its obligations and debts. On the other hand, negative net assets may signal operational and financial problems that might render the firm insolvent or bankrupt (McCamish, 2021 ; Accounting Insights Team, 2024).
2. **Resource Allocation**: Net assets have the implication of helping the stakeholders make the right investment decisions on which direction to take in the organization, whether to reinvest or distribute profit, or pay more loans. It also assists in the decision-making process as well as the ability of the company to take up new ventures or projects (Agarwal, 2024 ; Conrad, 2024). By understanding net assets, stakeholders can make informed decisions about where to allocate resources, such as reinvesting in the business, paying down debt, or distributing dividends. It helps in strategic planning and in evaluating the company's capacity to undertake new projects or initiatives (Agarwal, 2024 ; Conrad, 2024).

3. **Transparency and Trust**: Specifically, the chemical application of accurate documentation of net assets for non-profit organizations enhance the credibility and efficiency of the non-profit in the management and usage of the donor's monies. It also helps the organization avoid violating restrictions set by the donors; therefore it retains the credibility of the organization (Accounting Insights Team, 2024 ; Conrad, 2024). For non-profits, accurate reporting of net assets builds donor trust by showing how contributions are being managed and utilized. It also ensures compliance with donor-imposed restrictions, thus maintaining the integrity and credibility of the organization (Accounting Insights Team, 2024 ; Conrad, 2024).
4. **Performance Measurement**: Net assets can be modified over time and help to reveal organizational efficiency in using its assets and funds. More net assets could tell that the operations of an organization have been successful, costs controlled or invested money on pertinent operations made a good fortune. On the other hand, a decline could suggest problems or company inefficiency in the area of finance (Accounting Insights Team, 2024 ; Averkamp, 2024).on, with enough resources to cover its debts and obligations. Conversely, negative net assets could indicate financial distress, possibly leading to insolvency or bankruptcy (McCamish, 2021 ; Accounting Insights Team, 2024).

Net assets show finanace position and financial sustainability in the balance sheet of both the business organizations for profit and non profit. Management and investors or any donor use them to make strategic decisions depending on the company or organization's financial status (McCamish, 2021).

In conclusion, Balance Sheet is one of the simplest financial statements that reveal fundamental information on the financial position of the business. In this way, appreciated with reference to the financial structures of assets, liabilities, and shareholders' equity, stakeholders can identify such essential features of companies as their solvency, productivity, and opportunities for further development. In the shipping industry structure where fixed capital investment and long-term projects are dominantly present, the assessment of the Balance Sheet holds even a more strategic and important role in support to correct decision making and strategic business planning.

1.2 Income Statement

It is a general purpose financial statement which shows the operations and profitability of the business over a particular period, thus is also called statement of profit and loss (P&L). This statement gives overall view of revenues and expenses including profits and shows whether a business is generating profits or losses during the reporting period (CFI Team, 2021 ; Tamplin, 2023).

The structure of the income statement also, we start from the revenue, the COGS lead us to the gross profit. Immediately following it lists operating expenses followed by operating profit, non-operating items, and lastly net profit (Stobierski, 2020).

1.2.1 Revenues

Total Income or Total Sales referred to as revenues and located on the head of an income statement, signify recognition of the selling of goods and services devoid of deduction for the cost. This metric is important as organizational capacity to boost revenues is restricted and this efficiency factor demonstrates the capability to do so (Tamplin, 2023). Such revenue is recognized in accordance with specific rules which has the side effect of bringing uniformity and accuracy. Per revenue recognition principle, revenue is recognized on the statement of operation when it is earned not when it is received. This principle is crucial in order to link revenues with the actual performance of the business hence makes financial position more realistic (CFI Team, 2021).

Revenue can be classified into two main categories:

1. Operating Revenues: They are derived from the characteristic features, such as the number of business sales in terms of product and service. He pointed out that operating revenues of a manufacturing company stem from the manufactured product, while that of a service company from delivered services (Tamplin, 2023).

2. Non-Operating Revenues: These are profits which accrue from operations, other than those which are core business of a enterprise. They are interest income; dividend income; or gains on sales of assets. Non-operating revenues on the other hand are more useful in determining the profit making capability of the company that has not been engaged in routine business operations, (Tamplin, 2023).

These organization revenues are central to the strategic planning, appraisal, and monitoring of strategic business management activities. High growth in revenues indicates sound markets and only the right strategy to sell either low or to expand into new areas leads firms to incur more capital investment. On the same posterior, the

proceeding revenue status might reflect that the business need not to market its products anymore or other competitors have already entered the market place or the business needs to introduce better products into the market.

This leads to the elementos of the total revenues such that stakeholders can arrive at a clear picture of matters that cause increase or decrease in the revenues. These include various revenues analysis, pricing strategies and overall sales level analysis. From the revenue data, one is able to make a comparison of earnings between two periods so as to identify changes caused by such factors as seasonal variations, market forces or effects of sales promotion (Yhip & Alagheband, 2020).

For example, a retail firm may choose to decompose the revenue measure into product type, region or mode of sales: online or physical store. Its kind of segmentation also allows the management to focus on the sales of the most popular products, manage an inventory, and enhance the prospects of customers as well (CFI Team, 2018).

Despite the fact that revenue recognition is one of the most important financial figures, many organisations still find problems in understanding to this even with the different types of revenue, long-term contracts, or credit sales. These are areas that give rise to questions like when and in what manner, should revenue be taken to the statement of profit and loss if the raw material for arriving at such revenue is derived from service delivery over a period of time or delivery of goods in installments. It is important to charge for such kind of instances to ensure that corporate records of a firm are well maintained as well as making it easier for investors and other stakeholders in the firm to make better decisions (Stobierski, 2020).

1.2.2. Expenses

Costs are balance sheet elements, which encompasses all the expenses, which a firm needs to incur in order to generate its revenues for the period in question. These expenses are then stripped off the total revenues to get the gross or the net income or even the net profit of the firm (Tamplin, 2023). Expense recognition is an important process in managing a decent organization as well as decision making taking into account knowledge that costs are either builders or destroyers of profitability.

1. **Operating Expenses:** Hence are costs that stem from the key primary activities of a firm of which several are elaborated below; With operation expenses it is the kind of expense that comes in handy when pursuing with production of

goods or provision of services-annually or period in which they are calculated. Common examples of operating expenses are:

- **Cost of Goods Sold (COGS)**: This is the total cost attributable to the identifiable goods sold to customers by a firm in business. This includes the cost of the raw materials, the wages of the workers and all the overhead expenses that accrue to the line. In service based businesses this may be referred to as the cost of sales (CFI Team, 2019).
- **Selling, General, and Administrative Expenses (SG&A)**: These include all forms of expenditure including wages, salaries, rentals, electricity bills, stationery, other overheads and the rest. Cost of goods sold is usually shown differently from SG&A as to provide a clear picture of operating profit (Averkamp, 2024).
- **Depreciation and Amortization**: These are costs that do not call for cash and these involve charging the cost of assets – both tangible and intangible – to the period the benefited is realized. While depreciation is related to assets that are physical in nature like a machines, building-etc, amortization is applicable to items that are intangible in nature such as patents, trademark etc. (Averkamp, 2024).
- **Marketing, Advertising, and Promotion**: They include expenses that are made with the purpose of informing the targeted market of the available product or service to be provided. They accept expenses on any kind of campaign including promotions and all other types of marketing (Tamplin, 2023).

2. **Non-Operating Expenses**: They are not part of the operating or value added activities of today's business. They include costs associated with non-primary activities and financial activities, such as:
   - **Interest Expense**: Expenditures incurred on resources that have been borrowed are termed as the interest expenses. Among them some of them are as follows These are non operational because they are related with financing rather than operation of a company (Tamplin, 2023 ; CFI Team, 2019).
   - **Taxes**: They also come under the category of other income and most of the time income taxes come up with higher rate rather than operating

other incomes. They are based on pre-tax profits and are mandatory with the government authorities (Tamplin, 2023).

- **Other Non-Operating Expenses**: These could be realised through gains on the sales of assets, cost of reorganising operations or taking specially identified write-offs that is when the value of an asset as reported on the company's balance sheet exceeds the asset's recoverability that is its salable value (Tamplin, 2023).

They therefore need to be controlled well since employee expenses are of tremendous influence in direction of reach positive financial-health status of an enterprise. Given below are the benefits pegged on ability to closely monitor, and effectively control the operating expenses; Essentiality: the operating expenses can lead down the efficiency of business operations , thus reducing wastes while at the same time improving the business' capacity to raise profit margins. Non-operating expenses and include factors such as interests expenses and taxes which significantly affect the net income. Appropriation of such costs is done by organisations so as to be in a position to estimate and control such expenses for sustainable portfolio financing (CFI Team, 2019). Therefore, due to proper specification and categorization of expenses, the management of the firms can decide on how to attack cost, formulate its strategies on pricing policies as well as the overall over strategies. For example, the processes associated with SG&A costs cannot afford to argue over trifles because the resources may be required for further development, let alone the creation of better products.

1.2.3. Profit or Loss in the Income Statement

Other name of income statement is statement of profit and loss (P&L) statement is one of the vital profit oriented financial statement through which firms determine their profitability within a specific period of time. It gives every single receipt of money via all the operations of the firm and every cent spent in like manner, which results in the net profit or loss for the period. The identification of the profit or loss section is essential to all shareholders embracing managers, investors, and analysts since it reveals the income generating factor of the organization in relation to expenses.

The income statement which in its simplest form shows the profit or loss can be arrived at by subtracting the total expences from total revenues. The following relationship exists, that is, if total income is more than total cost, the organization makes a profit and if total cost is more than total income, the organization makes a loss. Some of the

major measures that are used in arriving at the formula include revenue, cost of sales and service, other operating expenses, total revenues that do not relate to operation, other expenses that do not relate to operation and an amount paid in taxes (Freeman, 2020).

1. **Operating Revenue**: This petty comprises all revenues realized from the major strategic activities of the business such as sales. Operating revenue is crucial for evaluation because it reveals the capability of primary business activities to generate revenues of the company.
2. **Cost of Goods Sold (COGS)**: This mean costs incurred in production of the goods sold by the company, therefore it is the cost directly linked with the sale of goods. That is materials cost, cost of labor and manufacturing overheads are some of the costs that are included in this. Gross profit is obtained by the difference between the operating revenue and the COGS (Baltova, 2023).
3. **Operating Expenses**: These are the costs that are costs associated with the daily operations of the business and it may include selling, general and admistrative expenses. These include pay rolls, rent, light, heat and wear and tear or what is referred to as depreciation. These operating costs are then deducted from the gross profit to yield operating income according to Hussain, in 2023.
4. **Non-Operating Revenues and Expenses**: It includes those revenues and expenses which are not directly related to its core business activities of the company. These are such as: interest income, gains and losses realised from investments and gains or losses on divestitures of other businesses or other assets; and expenses such as restructuring or litigation expenses or gains. Other income is added to the operating income to get to the Earnings before tax (EBT) (CFI Team, 2018).
5. **Taxes**: Otherwise, the money earned by companies is liable to tax and this is arrived at after subtracting the tax on the income to get the net income. The tax expense is the last adjusting figure on the income statement before arriving to the net profit or net loss (Baltova, 2023).

From this perspective, it is argued that the profit or loss figure on the income statement provides enough information required when thinking about a particular company's financial health as well as its worth creation capacity to the shareholders. A firm that operates at a continuous net profit level shows good management and efficient use of

resources while a firm that records losses as the norm needs attention (Stobierski, 2020). Also, for trend analysis, the figures shared in terms of profit or loss help firms compare their operations over certain periods to make the right choices such as reducing costs or increasing prices, or investing in particular industries (CFI Team, 2018).

There are two types of income statement, they include the multi-step income statement and the single-step income statement. A multi-step income statement provides a detailed breakdown of revenues and expenses into operating and non-operating categories, which offers deeper insights into the company's core operations versus its peripheral activities (Baltova, 2023).This format highlights three levels of profitability: By using the gross profit, operating profit and the net profit it is easier to analyze the financial accomplishment of a business.

However, what differentiate it with the single-step income statement is easier to understand where all the revenues are listed at the top of the statement and all the expenses at the bottom of the statement with the net profit or net loss. This format is easier to prepare and to be understood but the detail of sources of profits or losses are revealed slightly (Baltova 2023).

Of all the accounts in the income statement, the profit or loss section is a critical indicator of organizational financial performance and organizational efficiency. To understand this area of the income statement we are in a position to gather significant information regarding the controls of the company, and more particularly, its ability to earn profits from its main business operations. The breakdown of the things that generate profit or loss including the revenues, the COGS, Operating expenses and the non-operating items are crucial for planning strategic direction for a business and its sustainability (Tamplin, 2023 ; Baltova, 2023).

1.3 Cash Flow Statement

The Cash Flow Statement is one of the most basic financial statements prepared by businesses. It analyzes the company's cash flows and is divided into three main categories: cash flows from operating activities, cash flows from investment activities, and cash flows from financing activities. In this context, Cash Flows from Operating Activities are crucial, as they reflect the income and expenses arising from the core operations of the business (Conrad, 2024).

1.3.1. Cash Flows from Operating Activities

This is a category of cash receipts and payments from the operations of the company's major activities. Organizational activities relate to daily enterprise duties like selling products and services, replenishment of receivables and payment of suppliers and employees among others.

Calculation methods

Cash flows from operating activities can be calculated in two ways: It has the method of direct translation and the method of indirect translation.

1. **Direct Method:** In the method, collection of cash from sales of goods and services or other sources and the payment for acquisition of goods and services are noted. This method is deemed to be more informative, as it shows the precise sources out of which the company's cash balances are obtained (Hans et al., 2016).
2. **Indirect Method:** The use of indirect method is starting from the net profit before tax and then reducing for non- cash item such as depreciation a and then for difference in between account and cash basis. For instance, the amount of depreciation is added back to earnings because it does not mean that money has left the company (Tamplin, 2024). Substantial information regarding operating cash flow can be obtained.

Significant Data on Operating Cash Flow

Operating cash flow has all sorts of information that shows the working of the business financially. Among them:

- **Sales Revenue:** Cash from customers is the most strategic source of acquiring inputs for a business and the only one that finds its way to the cash flow statement (Hans et al., 2016).
- **Payments to Suppliers:** Costs incurred to acquire intermediate goods required for production process inclusive of amount paid for raw materials for production are some of the most common forms of cash outgoing (Hans et al., 2016).
- **Salary and Wage Payments:** They are of two types: Operating Activities, Non-operating activities; Payables include wages and salaries paid to employees while its cost is included in cash flows from operating activities. These payments influence the company's balance sheet of currents through the effects on liquidity in the following alternate year, (Tamplin, 2024).

- **Depreciation:** Even though depreciation is not a direct cash spent it is used in the correct computation of cash flows under the indirect method to give reasonable results (Tamplin, 2024; Hans et al., 2016).

Importance of Cash Flow from Operating Activities

Operating cash flow is arguably the most important element of an enterprise's financial health status. They show the efficiency of generating cash from the principal business activities of the company without resorting to the external sources of financing. If a business fails to generate positive cash flow from operations this means that it has to get finance from other sources (Cote, 2020).

That is why positive cash balances show that the enterprise is capable of paying its debts, invest, and repay its credit. On the other hand, negative operating cash flow it means that the business is suffering from liquidity constraints which may lead to instability of the business (Conrad, 2024).

Use in Shipping Companies

In shipping companies, break down of cash flow from operating activities is of great significance because large amounts are often expended on capital assets and needs and replenished through cash flow for the upkeep and replacement of ship fleet. This requires that shipping businesses have to be extremely careful in their cash flows, especially when freight rates are low or maintenance costs are high (Hans et al., 2016).

The tracking of operating cash flows is essential if one has to assess the health of a company financially. But whatever method is applied: direct or indirect, the picture of cash flow mapping does show the ability of the business to carry on its operations without relying on external funding. In the case of shipping firms therefore, strong organizational financial control is essential in ensuring cash flow that is key in as they thrive and expand in an industry that demands a lot of capital (Tamplin, 2024).

1.3.2. Cash Flows from Investing Activities

Cash Flows from investing activities is one of the components of cash flow statement, which presents changes in treasury funds of an enterprise through investment or divestment. This statement captures amounts of cash received and paid for acquisitions of long term assets including buildings, equipment, inventory and other assets and financial assets including shares, debentures, bonds etc (CFI Team, 2019)

Cash flows from investing activities typically include:

- Cash outflows from the purchase of fixed assets, such as Property, Plant, and Equipment (PPE) (Vipond, 2024).
- Cash outflows from acquisitions of other firms or participations in other companies (Vipond, 2024).
- Cash inflows from the sale of fixed assets or from the sale of investments, such as stocks and bonds (Tamplin, 2023).

These are documents of a company's capability and potential of using resources in anticipation of further evolution of the organization. For example, when a business obtains new property and equipment, it becomes cash negative; such outlay may enhance efficiency and revenues in the future (Stobierski, 2020).

When it comes to monetary flows with reference to investment, it also becomes helpful to regulate it for investors and the management. It is an indication of how genuinely and aggressively a firm plays the M&A game and becomes an active seeker of acquisitions or, more likely, how it withdraws from the market when its poor financial condition or a redesign of its business strategy does not let it integrate itself in a continual process of growth. It can also show whether a enterprise has excess funds investing in other securities such as equities or notes in order to earn more revenuw (Vipond, 2024).

Now it may happen that a company has Non Operative cash flow from investment which is not a bad at all. This might mean that the company will aim at diversify its operations; for instance through procurement of more plant and equipment, or other organizations. For example, the Walmart company had its negative cash flow from investment activities in 2019 because of the massive purchase of investment and property plant and equipments. Positive cash flows, on the other hand may be generated through selling of assets or through disinvestment. This may be the sign that the company has too many assets that are not providing it any cash and therefore is selling some of their stock to build up its cash reserves though at time it can also show that the firm is in financial trouble (Vipond, 2024).

With regard to the comprehension of cash flow from investing activities, let us turn to consideration of the particular instance – the restaurant chain Texas Roadhouse. The company has the negative operating cash flow due to the expansion capital it has used to open new stores and purchase equipments. Such investments indicate that the company is now in the growth phase of its life cycle, even though the company reports negative cash flows in the short run (CFI Team, 2019).

1.3.3. Cash Flows from Financing Activities

Cash Flows from Financing Activities relate to capital movements related to the issuance of debt and equity, the repayment of loans, the payment of dividends and the issuance of shares. These activities reflect how a business finances its operations, either through borrowing or raising capital from investors (Conrad, 2024).

More specifically, cash flows from financing activities include the following categories:

1. **Debt issuance and debt repayment:** The business may issue loans or securities to raise capital, which appear as inflows. In contrast, loan repayments are recorded as outflows (Vipond, 2024).
2. **Issue and repurchase of shares:** The company can increase its own funds through the issuance of new shares. In contrast, share buybacks are recorded as an outflow (Vipond, 2024).
3. **Dividend payments:** Dividends paid to shareholders are cash outflows (Vipond, 2024).

Information on operating cash flow is important for the analysis of the financing activities of a business firm in terms of meeting its capital requirements and its debts. Healthy financing cash flows usually signify an ability to borrow or issue capital, whereas unhealthy ones signify repayment of loans or payment of dividends (Hans et al., 2016).

Besides, such information enables investors and analysts to determine the impact of its financing activities on the company's position while servicing debts or providing shareholders' funds. For instance, a company may decide to fund expansion through new debt offers rather than from disposable profits; such will be deemed as a source of funds from financing activities though its cash flow. On the other hand, if a company repays its loans or provides dividends, then the cash flows from financing activities section would be negative (Hans et al., 2016).

The monitoring and analysis of such cash flows offer valuable knowledge about the sustainability of operation, as well as the resilience in terms of economic downturns or value creating by the help of financing (Vipond, 2024 ; Hans et al., 2016).Scholars 4

Statement of Retired Earningsng activities is critical to understanding how a business manages its capital needs and liabilities. Positive cash flows from financing activities typically indicate an increase in debt or raising capital, while negative cash flows may indicate debt repayment or dividend distribution (Hans et al., 2016).

1.4 Statement of Retained Earnings

The Statement of Retained Earnings is one of the income statement type financial statements that provide information regarding an entity's distributed earning over a particular period of the business. This is evident where net profits which are proceeds derived from organizational operations are either paid out to shareholders as dividend or retained within the firm (McCamish, 2021).

The Distributed Earnings Statement usually includes the following items:

1. Initial Balance of Distributed Earnings: That which is being brought forward from the prior accounting period (CFI Team, 2016).
2. Net Profit or Loss: Net income from the income statement for the period (CFI Team, 2016)
3. Dividends: Actual amounts paid to the shareholders for the period (CFI Team, 2016).
4. Final Balance of Distributed Profits: The remaining balance after adjustment for the new period (CFI Team, 2016).

A tool that would be helpful to the investors and shareholders is the Distributed Earnings Statement that gives information on how a firm manages the profits. For instance a firm may choose to plough back a large figure of its profits so as to undertake new product development, erect new structures, or perform some strategic maneuvers instead of distributing all the profits among shareholders. For businesses in the growth phase especially those in the technology or capital intensive industries it is important

for profits to be maintained in order to fund operations and or repay debts (Conrad, 2024).

The Statement of Distributed Earnings acts as a link between the Profit and Loss Statement and the Balance Sheet. Retained earnings information is added to the equity section of the Balance Sheet, while net earnings reported in the Profit and Loss Statement are a key element in updating the Distributed Earnings Statement (McCamish, 2021).

The formula for calculating distributed earnings is:

$$\text{Distributed Profits} = \text{Initial Balance of Earnings} + \text{Net Profits} - \text{Dividends}$$

For example a company was distributing €200,000 as distributed profit at the beginning of the period, earned a net profit of €50,000 during the period, and distributed €20,000 during the period, then the final amount of €230,000 (Quach, 2021).
Shareholders' diversity is realized in different corporate management and strategic business performance decisions. Typical applications are debt card, capital expenditure as investment in business, product development, or an outright purchase of other businesses. Further, organizations can apply them to repurchase stocks, which will positively affect the current investors, as stated by the CFI Team, (2016).
The Distributed Earnings Statement can be used very efficiently both by a company and by the investors. It is about the strategic management of any profit then required and gives a clear picture of the financial position of business. To evaluate such a condition is important for analyzing the potential of a company's enhancement of value over time and satisfying short-term requirements to shareholders (Quach, 2021; McCamish, 2021).

1.5 Notes to the Financial Statements

In fact, Notes to the Financial Statements contain extra information about certain line items disclosed in the statements and are a part of the notes. These notes enhance understanding of the financial information by investors, creditors and other users as they contain further information about those aspects of the business that are crucial in preparation of financial data.

1. **The role of notes in financial statements**

A proper illustration of Notes from finanicial statement is that these are annexure to the tables that contain policy, assumptions and other important information that accountants consider while preparing the last two. This may contain the undertaken's balance sheet, non- current liabilities and commitments, contingent liabilities and details on impairment of assets. Moreover, they contain law on the enterprise's legal operating status and any laws that may create problems in its financial context (Schmidt, 2024).

2. Accounting Policies and Disclosures

In the notes, the policy of accounting used by the enterprise is described exhaustively, for instance, the approach used for writing off the asset or the approach used in stock valuation. Also, they assist in better understanding of what constitutes revenue, risks and other factors that have impact on financial outcomes. This enables the users of the statements to determine how management addresses financial management and the differences in computations arising from policy choices (Averkamp, 2024).

3. Obligations and Commitments

Quite frequently, the notes contain information about the commitments of the enterprise, including long-term commitments, borrowings and leases. The notes also contain the details concerning the estimated cash commitments for the future including the lease commitments that may have an impact on the business's cash flow (Welc, 2022).

4. Impairments and Impairment of Assets

This report shows that impairment is an important concept, and a lot of information can be found in the notes. When certain assets become impaired, they need to be written-down, and in the notes, the method by which the lower value is determined is also outlined. This will give a true reflection of the value of the asset of the company and how this factors impacts on the net worth of the Firm (Averkamp, 2024).

5. Contingent Liabilities and Legal Issues

The notes also contain other obligations, that is, liabilities that are likely to occur at some time in future but whose occurrence is not assured. For instance, unresolved legal proceedings or possible litigation against the business are reported under the notes

while giving a comprehensive risk picture of the company (Schmidt, 2024 ; Averkamp, 2024).

6. Significance for Users of Situations
Notes are critical for analysts and investors as they allow them to better understand the financial performance and risks of the business. This information is essential for investment decisions, since it provides greater transparency about the financial data and strategy of the company (Welc, 2022).

Chapter 2. Audit Practices and Estimates

2.1 The Role of the Auditing Profession and Its Importance for the Credibility of Financial Reporting

Indeed, the audit profession has great roles in enhancing the reliability of financial information and meeting the needs of all the investors, shareholders and other stakeholders. In other words, the basic job of auditors is to state that all the financial statements of an organisation are accurate and they do not contain any major scams. Auditors need to have independence when presenting their report particularly in relation to business transactions as a result of impartiality of the auditors (Accounting Insights Team, 2024).

Last of all, auditors ensure that the details companies provide on their financial statements are of a specific standard such as IFRS or GAAP. This includes assessing the nature of management estimates, identifying and recognising revenues and assets and liabilities (Accounting Insights Team, 2024).

In addition, they improve the aspects of operations and controls within a firm, recommended improvements in practice and contribute to the discipline in financial and the stability and growth of a business. Audits can be divided into three main categories: For instance there's internal audit, external audit, and the audit of fraud. It is accomplished by organizational staff or outside consultants whose role is to observe the improvement of internal controls and risks management. In contrast, external auditors are people different from the company's staff and their objective is to provide an opinion on the financial state of a company. Fraud and unlawful financial operations are the principal elements that the forensic checks focus on (Accounting Insights Team, 2024).

Audits can be divided into three main categories: for example internal audit, external audit and the audits of fraud. It is performed by employees or outside consultants whose purpose is to monitor and assess the efficiency of internal controls and risks management. On the other hand, external audits are conducted by an independent party and are oriented towards rendering an opinion regarding the financial situation of a certain company. Fraud and unlawful financial operations are the main targets of forensic checks (Accounting Insights Team, 2024).

This follows the fact that independence of the auditor ensures that investors have faith in the financial statements. This means that in case there is no adequate independent assessment, then financial reporting might deliver flawed information that will erode stakeholder confidence. According to for example the International Auditing Standards Board (IAASB) global standards and the Public Company Accounting Oversight Board of Accounting (PCAOB) in the United States, auditors cannot be associated with management and audits must be conducted with professional skepticism (Yhip & Alagheband, 2020).

In a broad sense, there is a package of services that is enabled by auditing to provide support to companies in fulfilling the requirements of the different standard-setting authorities and in producing reports that are accurate and reliable to the investing public and other users. The auditors are not only expected to identify such matters but also to consider alteration of procedures or controls of the company (Accounting Insights Team, 2024).

The auditor and the various stakeholders have confidence and depend on each other. This financial information are used by investors, shareholders and any other user of these financial statements with the help of an independent assessment made by auditors. Independent opinions from auditors improve public confidence on reporting by corporations and avert market instability (Gipper et al., 2019).

Today, audit has a very important role in order to restore the credibility of financial reporting and the clarity of business operations. External auditors provide an assurance to the company and its users that financial statements are not manipulative and accord to international standards. Besides, the role of auditors in adding value to details within companies helps to strengthen its financial structure and bring credibility among stakeholders (Averkamp, 2024).

2.2 Guidelines and Standards for Auditing Accounting Estimates

Estimates constitute a significant portion of specific business activities, therefore the auditing of such estimates is a substantive component of audit work because they involve a substantial degree of uncertainty and relate to the discretion of the management. Accounting estimates include anticipated forecast or event such as the expiry of an asset or the provision for loss. The auditors' objective is to examine the business's underlying rationale for such estimates that is accompanied by substantial evidence and standard accounting practices (Gipper et al., 2019).

This is because auditing of accounting estimates remains a major challenge and guideline in this area has been developed to provide auditors with understandable management frameworks of the challenge. The AICPA through the statement on Auditing standard 143 also states that the audit should be done based on the risks and the factors that cause the uncertainty of the estimates.

Estimations are based on risk regarding the application of the principles of accounting in areas where the concrete measurable figures are difficult to acquire. For example, for fixed asset or inventory valuation, or amounts which we intend to write in the future through the expenses such as allowances for doubtful debts, are usual places where estimates are required, but cannot be precise. Under the regulation of AICPA, it is generally understood that while making expectation of such nature, that should have business like credibility and proper skepticism because even little changes to the estimates may well exert undue emphasis on financial statements (AICPA, 2013 & Christensen et al., 2013).

As mentioned in the PCAOB guidelines it is stated that the auditor should examine management's use of processes to develop the estimates and also should assess the auditor reasonableness of the assumptions made and whether sufficient data has been used by the management or not (Christensen et al., 2013).

The estimates that involve high uncertainty are those which require special attention because they influence the company's position through reasonable estimates. Global and domestic guidelines exist on matters to do with audit practices of accounting valuations. Justification that the ISA 540 has been released by the IAASB focusing specifically on the audit of accounting estimates together with the relevant disclosure. In accordance with this standard, the auditor has to consider as to, whether the estimates

are neat or complex, what types of data have been used in preparing estimates and the assumptions made by the management (AICPA, 2020).

Like other aspects, ISA 540 also contains strict requirements for the sufficiency of the auditor to have sufficient understanding of the data that have been used for coming up with the estimate. From this, we get the fact that the verifier has to confirm the data with either other source of information or request for confirmation from the other source where necessary. Further, the auditor has to ensure the estimates are relevant to the period under consideration, rather than developed based on such forecasts for which evidence cannot be found (Welc, 2022).

While professional skepticism is required if the auditor reaches a conclusion about accounting estimates. Auditors should challenge Management's assumptions every time these assumptions are R泡, especially when managing has incentive to tilt the results. Therefore, lack of adequate professional skepticism may leads to many organizations preparing incorrect or inflate Financial statements as postulated by AICPA (2020). They also require to consider the place of the valuation process in which disclosures are made to the investors and other stakeholders of the company. Lack of proper disclosure information can cause users who depend on the financial statements to lose confidence in the information they receive, thus making the company lose a lot of resources in terms of name and financial base (Gipper et al., 2019).

Accounting estimates are estimative, not free from risk and are based on the auditor's personal judgments in the course of undertaking audit work, for this reason, the audit of accounting estimates has been considered to be among the most challenging tasks of the auditor. The existence of standards like ISA 540 and SAS 143 enables auditors to have the direction they need while conducting an audit of estimates that would enable them determine whether the estimates made are reasonable and founded or not. In addition, the existence and the entire process of audits and their assertion need professional skepticism and the primary assessment of other management activities (Welc, 2022).

The challenge stemming from volatility is that auditors need to be very careful, especially on those matters that are in the management's list of matters for change through estimates. In this regards, guidelines and standard offers auditors a clue on how to recognize and respond to emerging risks that originates from accounting estimate.

2.3 Audit Procedures for Accounting Estimates

Co-ordination of the audit process is one of the key steps while ensuring the validity of the enterprise's financial statements. Such estimates include the value of impaired assets and other assets, non-current and current tangible and intangible assets, estimated losses from credit losses, provision outflows for liabilities, and claims obligation. Since accounting estimates contain a large element of subjectivity, auditors must use special procedures to assess the reliability of the estimates (Tamplin, 2023).

Audit approach is as follows: It begins with evaluating the background of the organization and the nature of analyzed management estimates. The situation,is circumstances which give rise to the march for the appraisal of the assets and or businesses include; Besides the statutory requirements, the economic data of the business and its internal control. In order to make comprehensible accounting estimated, the management accounting policies must be understood in order to identify elements of the statement that could affect the estimates and risks (AICPA, 2020).

Another factor discussed during the process is the assumptions used by the management. The assumptions are supposed to be reviewed according to the auditor whether they apply to the past experience of the company and the business segment that the company belongs to. Further, these estimates are incorporates information beyond it control such as change in markets or Legal requirements (Kaplan Financial Knowledge Bank, 2020). The audit data that is required for the evaluation of the assumptions ought to contain sufficient data because fluctuations may conceal risks of calculated precision differences.

This is then succeeded by another significant process in which the management's method for preparing the estimates is evaluated. The auditor should consider whether the approach applies with international standard or frameworks such as ISA 540 which aims to offer guidelines and frames of reference for verifying quantitative estimates. Schematic changes might reflect tasks in which assessment is transformed into the rate of personal opinions or might be influenced by the organizational bias (Lessambo, 2018).

The procedures include the review of the historical data that has been used in estimates as part of the value procedures. The auditor should verify if this data is enough, whether it is aligned with the current market tendencies (Welc, 2022). Moreover, the auditor may find what if scenarios and assumptions that led to the preparation of the initial value estimates to be reasonable. Historical analysis also plays a role in identifying errors or some form of inaccuracy that may surround financial statements.

Where valuations involve professional judgement, for example, an estimate of impairment of assets or fair value, the auditor may require specialist help. Actually, the presence of the leaders and experts can be useful in evaluating the admissibility of estimates and how objective they are. It is crucial to involve the specialists in preparing the estimates in case estimates are calculated based on the specific equations or in case many very fluctuating factors are impacts (Kaplan Financial Knowledge Bank, 2020). The auditor needs to confirm that publications of estimates are following the provisions of the accounting standards. This involves a review of the notes to the financial statements for proper information regarding the risks and factors used to arrive at that decision. Publications must be transparent where there are large uncertainties with the capacity to impact users of the financial statements. Accounting estimate Bethesda procedures form a fascinating and important component of auditing financial statements. In regards to estimates, auditors need to consider whether the specific data used to calculate the estimate, the assumptions made by management and by the accounting standards are reasonable. When the audit procedures are successfully implemented, it will be easier to arrive at realistic estimates and, therefore, assess the health of the company (Kaplan Financial Knowledge Bank, 2020).

Chapter 3. Accounting Standards in Shipping Companies

Shippers practice in a challenging economic context characterized by international regulations, universal economy and specific ship operating requirements. The accounting standards that prevail in the shipping industry have become important tool that provides for the needed transparency and comparability of the financial reports, as well as the means of evaluating the shipping companies’ financial results..

3.1 Accounting Standards and Shipping

Shippers follow the international accounting standards and most of which are dictated by the IFRS developed by the IASB. These standards demand that shipping companies record and report the business consequences of financial transactions, the acquisition and management of shipping resources and chartering with neutrality and accuracy. IFRS Standards in shipping implementation enable the companies to practice cross-border comparability and offer uniformity across the country's shipping companies' financial statements, which in turn makes it easier for the results analysis through financial statements to be undertaken by investors and regulatory bodies.

One of accounting standards that falls under this topic is the method of recognizing and pronouncing maritime assets including ships. These assets must be depreciated correctly by companies because it is now outdated; the economic useful life of ships; wear and tear and the fact that because of new regulations ranging from emission control rules from International Maritime Organization (IMO) etc., companies have to invest in technology (Smith, 2024).

The valuation of ships is also influenced by the state of the world market. Increased demand for ocean freight can increase the value of ships, slowing down the depreciation process, while reduced demand can lead to faster asset impairment (CFI Team, 2021).

International Financial Reporting Standards, particularly IFRS 16, have a significant impact on the shipping industry, mainly in terms of charter management. Vessel charters are considered long-term leases that affect the financial structure of the company, as they must be recognized as both assets and liabilities on the balance sheet. IFRS 16 allows leases to be recognized as debts, affecting shipping companies' image in financial markets and their debt levels (Smith, 2024).

Shipping companies also face the process of impairment of their assets, mainly ships, when their recoverable value is less than the book value. This can happen in times of economic recession, where ship prices fall due to low demand in the freight market. Impairment is recognized as a loss in the company's financial results and can significantly affect the profitability and valuation of the business (Lessambo, 2018; Smith, 2024).

The implementation of international accounting standards, such as IFRS, offers shipping companies a clear framework for identifying and valuing their assets, managing leases and addressing impairment issues. These standards help improve the

transparency of financial statements, reduce accounting uncertainties and facilitate international comparison of shipping companies, which is crucial for an industry operating globally (Tamplin, 2023; Smith, 2024).

3.2 Accounting Standards in Shipping Companies: Leasing (IFRS 16)

Shipping is probably one of the industries most capital intensive and leases have been known to serve different functions in the financing and management of shipping firms. This is through the implementation of International Financial Reporting Standard (IFRS) 16 for leases that went effective as from 2019.

3.2.1. Implementation of IFRS 16 in Shipping

With the implementation of IFRS 16, companies had to record almost all leases on their companies' balance sheets. It is thus significant to focus on this standard in shipping because leasing is one of the major sources of acquisition and management of ships and other capital assets. Hiring ships through leases is a normal business approach in the shipping industry, due to the associated cost of acquiring and putting in place a ship.

3.2 Accounting Standards in Shipping Companies: Leasing (IFRS 16)

Certainly shipping is one of the industries with exceedingly high demands for capital and leases are accordant with financing and functioning of shipping companies. The update of IFRS 16 regarding leases in 2019 has introduced radical changes in the recognition of leases in the sector.

3.2.1. Implementation of IFRS 16 in Shipping

Specifically, IFRS 16 has made profound changes to leases' accounting, which creates almost all leases on the balance sheet of organizations. The application of this standard in shipping is important because leasing acts as one of the primary means of acquiring and controlling ships and other forms of capital assets. Also, leasing of ships through leases is a frequent occurrence within the shipping companies because the purchase price and annual maintenance costs of ships are relatively high.

- **Recognition of Leases on the Balance Sheet:** According to IFRS 16 leases must be recognized on the balance sheet as “right of use assets”. Therefore, it means that companies must ‘accept’ the value of the leased assets in the industry, this could be ships, port facilities or equipment among others. Secondly, with the acquisition of the asset the corresponding financial liabilities of the lease is taken to imply the amount that the company is expected to pay for the lease in the future (Leptos et al., 2016).
- **Depreciation and Financial Liabilities:** Since shipping firms employ leased assets, the value of such assets reduces through depreciation over time. While these leases, they are also associated with the financial liabilities which are repaid in accordance to the terms of the lease. This means that necessary operating costs relate to leases tend to be most faithfully reflected in the balance sheets of shipping companies (International Financial Reporting Standard, 2023).

The impact of IFRS 16 in shipping companies is an increase of their financial ratios especially the debt to equity ratio due to the recording of lease financial liabilities as debt. This could make a company seem more ‘highly geared’, though its operating costs could remain the same (IFRS, 2023). Besides, there will be qualitative and quantitative adjustments in the recognition of lease expenses that may make more expenses incurred in the initial years of an operational long-term lease due to faster depreciation, and higher interest costs that may bearing on the company’s net profitability in the short run (Leptos et al., 2016).

This is evident due to the fact that the all leases recognition to the balance sheet – make it necessary for the shipping firms to exert improved scrutiny on their financial operations. Leasing remains one of the savvy tactics used by shipping firms since it permits flexibility to be retained in operations, while at the same time no capital outlay is sunk on the acquisition of ships or equipment. However, under the new standard IFRS 16 organizations have to accurately analyze whether the long-term liabilities they are assuming through leases are desirable at all before engaging in new lease contracts (Hans et al., 2016).

IFRS 16 when implemented in the shipping industry has caused a shift in the way these companies report leases in their balance sheet IFRS 16 which has helped reduce the

level of opaqueness in the way that companiesrances but impacted the financial information of the companys. Nevertheless, the possibility to reflect all the leases as the assets and liabilities offers a better assessment of the shipping companies' financial positions which are useful to investors and stakeholders.

3.2.2. Advantages and Challenges

Through analysing the data we concluded that the adoption of IFRS 16 has affected the reporting of leases in shipping companies in a meaningful way. For instance, IFRS 16 requires organisations to recognize virtually all leases on their statement of financial position, which alters the.until-users in terms of the accuracy of information presented and enables investors and creditors to have a better picture of the company's obligations (Leptos et al., 2016).

Advantages

The main benefit that can be attributed to the use of IFRS 16 is increased comparison." Earlier, operating leases did not appear on the balance sheet, so the company's obligation was not shown in full. The requirement to record these leases on the statements as assets and liabilities better reflect the organization's total liabilities and give the investors better insight into the financial standing of the company (Vipond, 2024).

Besides, it is noteworthy that the main means of shipping companies' financing – leases for their vessels – results from these operations being reflected on the balance sheet provide clear and easy-to-understand information on companies' total financing. They help in increasing the confidence of the creditors and the investors through showing them a complete form of the company's capital structure (IFRS, 2023).

Challenges

However, adopting IFRS 16 also has numerous challenges as follows below. First, shipping companies are obliged to recognize lease periods and to understand the nature of lease. At times, the leases may contain very complex terms with may impact on the value of the liabilities as well as the assets that are leased (IFRS, 2023).

A lot of issues arise in terms of how to deal with changes in financial leases with regards to adjustments for their adoption. The main with regards to IFRS 16 is that whereas before lease assets and lease liabilities remain off the balance sheet, IFRS 16 requires both to be captured on the balance sheet hence increase the company liabilities inevitably leads to an increase in its debt- to- equity ratio. This change may lead to a

deterioration of financial ratios that may pressure investors or hinder the ability of the firm to finance (Smith, 2024; Leptos et al., 2016).

Another major challenge is how the standard affects the value for companies when it comes to leasing in the first years of implementation. Usually, because the leases are recorded as financial liabilities, this will imply that firms will record higher depreciation and interest costs during the initial years of the lease. This may decrease profit level, however, operating performance may be either good (Smith, 2024; Leptos et al., 2016). Furthermore, the changes that shipping companies need to implement should be appropriately presented to the investors and stakeholders because companies' financial results might appear less favorable, whereas their performance is very good. Accompanying knowledge of accounting changes by all interested parties is deemed indispensable for preventing misconceptions of the company's financial situation (International Financial Reporting Standard, 2023).

While IFRS 16 brings several benefits for the level of transparency and improved presentation of shipping businesses' financial statements, it has certain issues we must manage prudently. The right adoption and dissemination of these changes can result to proper assessment of shipping value businesses and improve investors' confidence (Tamplin, 2023).

3.2.3. Impact on Maritime Performance

This paper examines the implication of IFRS 16 on the shipping industry, specifically the effects of the requirement for the recognition of leases on the balance sheet. In the shipping industry, where companies bear with very costly assets in the form of ships and where long-term lease arrangements are the order of the day, this pattern tends to shape most of the ways in which companies go about handling their obligations.

The utilisation of IFRS 16 in as per the Company's leases accounting policy helps in increasing the transparency in the balance sheet. Prior to the use of the standard, operating leases were off balance sheet, and this resulted in the creation of inaccurate pictures regarding a company's financial health. New visualization shows leases registered as use assets and the corresponding lease obligations and this provides a better view of the company's financial obligation (Săcărin, 2017).

It also allows the investors and analyst to have predictive estimates regarding its actual capital structure and it liabilities in the future. For example, the cost and value of a shipping company fleet have to deal with leases for the fleet, making a comparison with

other shipping companies using different forms of financing such as direct purchase or leases easy.

Convently, IFRS 16 may cause certain negative effects to the shipping companies' financial statements in the short run. The identification of use assets and lease liabilities results in a higher depreciation and greater financial costs going forward, especially in the first years of the lease, which could mean a negative effect on net profits in the short run (Morales-Díaz & Zamora-Ramírez, 2018).

This was especially evident in long-term lease arrangements where total lease expense is recognised in early years of the leases whereas the expense recognised in the last years are relatively low. Subsequently, shipping companies' investors' expectation on higher depreciation and financial expenses have to be controlled and directed towards informing their understanding that long term benefits will be seen as leases mature (Leptos et al., 2016).

Greater clarity and more accurate representation of leases can also contribute to enhancing shipping organisations' optimisation of even their strategic resources effectively. The reason for putting leases on the balance sheet is that it provides a more accurate overall view of the organization's responsibilities as well as its long-term expenditure plans.

However, the IFRS 16 blinds companies to reconsider their lease policies. Some of the shipping companies might decide to opt for shorter lease agreements or even prefer direct acquisition of vessels since the acquisition of vessels under long term leases has added disadvantages of inflated depreciation and increased cost of leasing (International Financial Reporting Standard, 2023).

All the same, shipping organisations are unanimous in acknowledging that the implementation of IFRS 16 influences the shipping industry primarily in the selection of indicator for the finacial statements' fairness and profitability. While in the short term it can create problems because of the necessity to report all the expenses it gives more transparency to the sides – companies and investors, which helps to make correct decisions and manage the resources (Morales-Díaz & Zamora-Ramírez, 2018; Săcărin, 2017).

3.3 Impairments

Impairment is a vital topic for the shipping industry because the regular shipping assets, viz., ships and equipments are bulky capital investments and a slight changing in their value dramatically distorts the financial statements of the company.

Impairment means a measurement of whether an entitys assets has been reduced to, or below, the amount at which the carrying value is written off. If the inspection reveals an impairment, the firm has no other choice than to put down the value of the asset on the balance sheet and take a write-off. This normally occurs when the asset is unable to generate anticipated future cash flows because of factors that reside outside the residual income model such as shocks in the market place, technological change, or ordinary deterioration of the asset (Smith, 2024; ICAEW, 2024).

Currently, one of the most significant sources of the sensitivity of the shipping industry of changes to market values of assets is the cyclical dynamics of charter prices and shifts in the demand for sea transportation services on the global market. Hence, the shipping companies need to undertake impairment checks frequently in order to arrive at the correct value of the vessel. This can be evidenced by the deterioration of charters, physical deterioration as the vessels age and even very basic problems such as economic downturns that lead to decreased shipping activity (Smith, 2024).

The impairment is effected through a systematic method which employs estimations of the recoverable value of the asset. Most important measure is recoverable value which is the higher of fair value less costs to sell and the value in use. There is the use aspects in present history expected or valuable cash flows out of bearing or using the asset. If the carrying amount is greater than the recoverable value then impairment is recognized (Morales-Díaz & Zamora-Ramírez, 2018).

One commonplace cause of impairment is the depreciation in the physical form of shipped assets including ships and equipment. The condition of the freight as well as the age of the ships and their technical condition are other factors affecting the shipping company where it is also important to consider, efficiency of the equipment where there can be advancements in technology to reduce efficiency of the equipment in the fleet (Smith, 2024).

Where there is impairment the difference between the accounting value and the recoverable value is charged to the profit and loss account. It has been noted that this

entry can greatly affect the shipping company's income statement, and decrease it overall profits as well as its net asset value. However, it also has a direct impact on taxes because impairment recalculation influences the taxable base of the asset (ICAEW, 2024).

Impairment estimates for the shipping industry are difficult to estimate due to key industry characteristics such as the cyclicality of markets. Fluctuation in the economic indices, shifting in geopolitical map and movement of world oil prices can impact the ships and their workings. Companies need to take this external data into account and apply dynamic estimates of their future income and expenses in order to accurately calculate the recoverable value of their assets (Smith, 2024; ICAEW, 2024).

Impairment is a critical tool for shipping companies, ensuring that asset values reflect their true market value and ability to generate future cash flows. Regular valuation of ships and equipment is a prerequisite for sound financial management and future investment planning.

3.4 Recognition of Impairment Loss

One of the crucial questions in the accounting for shipping companies is the identification of loss impairment, caused by assignment's long-term and high-value, like ships. Impairment means a situation whereby the carrying amount of an asset is reduced if the recoverable amount of that asset is lower than the carrying amount. The process has been governed by the International.

Accounting Standard 36 (IAS 36) referred to as impairment of assets. In IAS 36, an impairment is recognised if the carrying amount of the asset is more than the recoverable amount that is either the net realisable amount or the value in use of the asset. Net realisable value is the full price that the asset can be sold for, taking into consideration the selling costs, and use value is the present value of the cash inflows expected to be generated from its usage and its disposal (Grant Thornton International Ltd., 2023; Deloitte, 2024).

This process is crucial in shipping firms because the ships which are the main source of services provided undergo some important changes such as deterioration, obsolescence and variation in service prices and demands. There might be cases where impairment in the shipping companies will be required when the market condition

deteriorates, that can be defined by the fact that the shipping vessels' value in the secondary market is low also or the expected cash flows from these vessels are low (Grant Thornton International Ltd., 2023).

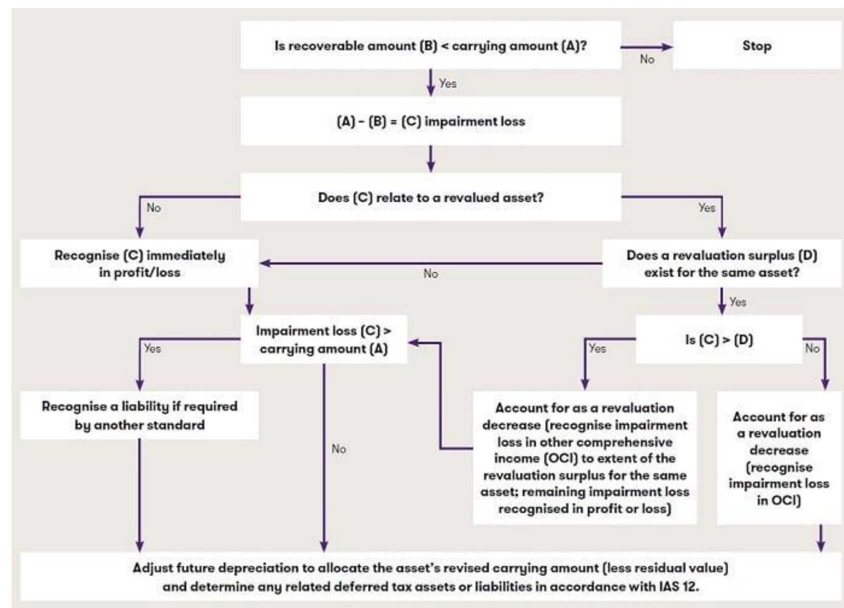

Diagram 1. Summary of IAS 36's requirements for recording an impairment for an individual asset. Source: https://www.grantthornton.global/en/insights/articles/IFRS-ias-36/ifrs-Recognising-impairment-losses/

The impairment recognition process includes the following steps:

1. **Assessment of impairment indications:** In both cases, any indication of impairment is required at the end of each fiscal period a company identifies. These may be external, as in the case where the purchasing power of ships has declined or internally, where there has been a deterioration of the efficiency of the fleets (ICAEW, 2024).
2. **Calculation of recoverable value:** Where there is some evidence of impairment, the company must determine the recoverable amount of the asset or CGU to which it belongs. It involves forecasting prospective amounts of cash and reducing them to their present values by applying an appropriate rate of Discount (Deloitte, 2024).
3. **Recognition of loss:** If the recoverable value is lower than the carrying amount then impairment loss is charged to the company's income statement. This recognition brings down the recoverable value as the amount of the asset as recognized in the balance sheet (Grant Thornton International Ltd., 2023).

For shipping companies, the process of impairment is particularly critical, as ships are long-term assets with significant value. Impairment recognition can directly affect a company's profitability and financial condition. For example, in times of downturn in the shipping market, companies may need to adjust the value of their ships, leading to large impairment losses. These losses can affect the company's ability to raise capital as they reduce its net worth (International Financial Reporting Standard, 2023).

Also, factors like volatility and other factors like change in price of the shipping services, price volatility of fuel and any form of a change in international regulations are capable of fast tracking the impairment process of the vessels owned by the shipping companies. This makes it necessary for organization to constantly assess the market conditions bearing in mind that, any impairment is easily masked by other factors until it becomes a financial disaster (Grant Thornton International Ltd., 2023).

According to IAS 36, tests for impairment are much stricter and thus used by shipping companies when recognizing impairment. This comprises estimating recoverable amount by reference to the best estimate of the amount which can be recovered through cash generating unit and discounting cash flow at a suitable rate of interest. However, in the case of cash flows decline, then the loss must be reported in the results itself without any delay (Săcărin, 2017).

Some of the impacts of impairment recognised under IAS 36 may include relationship between its performance, including certain ratios that are legally stipulated, and the company's ability to meet ratios that it needs to meet in relation to loan agreements or any other financing agreements that it might be entered into. Such recognition also enables rational utilisation and efficient decision making about the company's resources and/or the restructuring of the fleet or the sale of the assets (Morales-Díaz and Zamora-Ramírez, 2018).

The acknowledgement of impairment is one of the significant methods of verifying shipping companies' financial statements. Since, ships are fixed capital investment, trends in value changes and dynamics of shipping services markets warrants regular analysis and review. In this case, early identification of impairment facilitates accurate preparation of the financial statements and helps management in decision making a on the assets being impaired.

3.5 Leases and Company Performance

Leases and 'sale and leaseback' solutions represent an important factor for the performance and operating result in shipping companies. Chartering or leasing is a flexible arrangement of acquiring ships which also offers source of finance especially in situations that calculating or when bank credit is not available due to financial problems.

A common technique used is 'sale and leaseback' under which a shipping firm is able to sell a vessel but retain it for use under a lease agreement without incurring more debt on its books. In this manner, the company frees up liquidity that it can otherwise invest in other assets, and the lessor receives such financial benefits as tax deductions derived from the depreciation of the value of the vessel (Raoli, 2021; Smith, 2020).

Ship leasing has grown to be one among the major sources of financing as bank financing reduced after the 2008 global financial crises. Especially in Asia which is today one of the leaders in the leasing market, chinese companies have taken leadership in global shipping financing. This is due to the fact that financial sources must be more adaptable, and there are new tax inducements in some areas like Hong Kong as Smith found out in his research.

The previous leasing standards under IFRS are quite different from those of the present IFRS 16, where companies record the use of leased assets on the balance sheet. Debt and fixed assets were most impacted by this change making it easier for organizations to get a real picture of what a company is really worth. To shipping companies that have made ship leasing one of the cornerstones for their business model, it has brought about a number of problems but at the same time avenues for better utilization of their funds (Alexopoulos & Stratis, 2016; Raoli, 2021).

Leases have varying degrees of impacts on performance of a company. On the one hand, leases minimize the effect on cash outflows required for acquiring fixed assets since the money can be employed in other ways and for other purposes, including new technologies and method innovations.

Conversely, there are long-term leases, and where these leases come with other appealing things like lower monthly costs, they give more consistency in terms of cash inflows. At the same time, the application of leases as a financing source affects an increase in the financial indicators, since leases are not always included in the debt.

This enhances the company image towards investors and credit markets to that of containing less of high debt to equity ratios (Smith, 2020).

The application of these leasing and leasing strategies enables shipping companies to have the required flexibility to perform in the existing market situations while at the same time being able to withstand the pressure competed by the shipping industry environment (Alexopoulos & Stratis, 2016).

Chapter 4. Decision Making in Shipping Companies

4.1 Strategic Planning in Shipping Companies

Strategic planning in shipping is a continuous and dynamic task that requires adaptability and cooperation. Companies that invest in strategic planning have the potential to more effectively manage industry challenges and remain competitive in an ever-changing global environment.

In this case strategic planning for shipping companies cannot be overemphasized, as it reduces vulnerability in a volatile business environment that harbours fierce competition unresolved for the international market. Growth planning encompasses long-term activities of an organization in terms of the health and sustainability of the business as well as in response to changes in the market setting. It stated that one of the major themes of strategic planning in shipping is to manage for uncertainty and risks. That is why dynamic aspects, such as the price of fuel, regulatory changes and geopolitical processes require flexible strategies that would respond to new realities in shipping companies (Wu et al., 2018).

Such strategies include; fleet diversification, operating cost cutting, and the incorporation of improved efficiency technologies together with low impact on the environment (Săcărin, 2017). The other key issue being the strategic alliances with other companies in an effort to collaborate in any kind of business. Incorporating strategic partnerships for shipping as those observed in container transportation help organisations to cut costs on infrastructure and equipment in particular since these are shared among the partners (Wu et al., 2018).

They also create chances of market access and improving their competitiveness as well. The actions taken within the strategic planning with respect to shipping are dictated by

the macroeconomic situation and global trends in the transport industry. Shipping service requirements, commodity prices and carbon emissions policies are strategic decisions that affect companies in the long run (Alexopoulos & Stratis, 2016).
Strategic management in shipping is on-going and iterative theme that cannot be accomplished individually. Strategic planning holds the promise to help companies in managing industry challenges and staying competitive in the continuously changing global environment, if resources are directed toward this goal.

4.2 Operational Decision Making

Decision making in the operational level of shipping companies is a sensitive area since it determines the working state of the business. Thus, in the framework of international shipping, decoding of daily managerial and operational procedures entailing decision-making about fleet and related resources management, procurement management, constitutes a challengingly complex but inevitable task. The firms are expected to take choices concerning their internal functioning and external circumstance in the international shipping business/economy (Gao et al., 2024; Sciomachen et al., 2009).

1. Route Planning and Fleet Planning

Every shipping company needs to make decisions on which route to take, which ship to assign in the current and the future, and how effectively the fleet is utilized. Companies involved in shipping are to determine which of the ships would be in a position to transfer particular cargoes, which directions should be chosen and how various schedules must be arranged. This scheduling is based on factors such as; availability of cargoes, weather conditions and international shipping laws on passage. These challenges have become solved by the optimization techniques like the heuristic algorithm to meet the efficient means of fleet running (Gao et al., 2024; Sciomachen et al., 2009).

2. Procurement and Supply Chain Management

Decisions made on the acquisition of materials as well as fuels are also integrated into the operational operation in shipping enterprises. Shipping business profitability also

greatly depends on the purchase of fuel and the ability to obtain it at the right time or during a great rate change and at an oil price (Tsantis et al., 2022).

3. Security and Compliance Decisions

Safety management can also be said to influence functional operating decisions especially given a scene where numerous international regulations and standards are stringent. Operators organizing the shipping traffic in the sea must make certain their ship meets certain standards for instance those of the International Maritime Organization (IMO) on pollutant emissions and safety of ships. They relate, among other things, to the renewal of equipment, personnel training and the performance of working conditions required on board ships (Sciomachen et al., 2009).

4. Risk Management and Insecurities

The shipping industry is exposed to great risks ranging from movement in the price wallah of oil, political disruptions and shifts in legislative rules and regulations. Mitigating of these risks involves the ability to think and make proper decisions to deal with the risks effectively. Every decision made in operating a shipping firm should involve an understanding of what the decision will do to the firm's profit, reputation or even the safety of the firm. Analyzing tools and scenario approaches enhance decision-making in these domains (Gao et al., 2024; Tsantis et al., 2022).

5. Digitalization and Big Data

It has now emerged that technology is becoming an influential agent in enhancing business decisions. Real-time data from the sensors and the performance of the ship systems provide shippers with an ability to manage the efficiency of the vessel whilst at the same time maintaining low energy consumption decision making on the best routs. Furthermore, simulation technologies, optimization algorithms are used for demand forecasting and fleet planning (Sciomachen et al., 2009; Tsantis et al., 2022).

Decision making on the operations front in ship owning/managing companies involve many parameters right from the security compliance aspects to procurement management and risk management aspects. This paper has established that the timely and accurate decisions made by shipping companies play an important role in the realization of their strategic goals and competitiveness especially with the globalization of the shipping industry.

4.3 Financial Decision Making

The management of financial resources is one of the most important strategic decisions in shipping companies as this industry requires huge amount of capital and is sensitive to such conditions as oil price, interest rate and demand on transportation services. In this context, strategies are put into place by shipping companies, given that the overall management of financial resources to attain sustainability as well as profitability. Options involve in shipping companies' financial decision making involve considerations on investment, finance and risk taking. These decisions depend on factors like cash resources, and structures of capital within the enterprise domain, general information on economic conditions and legal frameworks regulating operations, and advancements in technology (Hernandez, 2000; Won Kang et al., 2016). The key strategic choices that are implemented in shipping businesses refer to the acquisition and replacement of their vessels. Concerning shipping, high amount of capital is necessary, however, long term decisions to purchase a ship or to hire a ship, depends on expectations on demand and freight rates. The net present value (NPV) method is most popular to analyze the investment's profitability (Won Kang et al., 2016).

Companies are also investing on fixed assets like port facilities or on other technologies which increase the ship efficiency by cutting on the operating expenses. This is because most of the shipping investments are funded through borrowed funds. Basically, the major sources of funds include ship mortgage loans which are the main revitalization tools, however; activity in listing in the stock market and equity financing is also gaining popularity specially with large amounts with giant companies. However, the other available sources of financing for new ventures have developed as follows; private equity financing and venture capital financing (Hernadez, 2000; Won Kang et al., 2016).

The decision on which form of financing to choose depends on cost of capital, risk and expected rate of return. One of the concerns that CFOs should bear in mind relates to capital structure because condition of high debts entail high financial risks especially when the company is operating under low traffic conditions thus low revenue generation (Won Kang et al., 2016).

The risk that the shipping industry faces are for example fluctuation of freight rate, change in price of fuel, geo political risk and change in exchange rate. Such risks as these can be difficult to manage, and it is here that the task of the financial manager lies. Derivatives acts as hedging tools to guard the profits of the companies from rising interest rates and fluctuations in the exchange rates (Hernandez, 2000). Also, risk management entails spreading the exposures through business diversification andFormation of alliances with other shipping or non-shipping companies to share risks, as well as increase the stability of revenues (Tsantis et al., 2022).

Shipment finance management decision entails understanding of the industry economic and market factors. The analyses of investment and financing choices with the management of risk directly influence the success of a shipping company. What is more, recognizing the market conditions and making the adequate use of the limited resources available, shipping companies can always sustain their businesses for the unpredictable market turnovers.

4.4 Risk Management in Shipping

Managing and controlling risks in the context of shipping is an important aspect to measure the ability of shipping companies to survive in this ever changing and volatile environment. The shipping industry faces various types of risks financial, operational, environmental, and geopolitical risks among others that means that risk management is crucial to the survival and success of companies in the industry (Dou, 2023; Alizadeh & Nomikos, 2009).

The main risks in the shipping industry can be classified into four main categories:

1. **Financial Risks:** Volatility of shipping is always prominent when costs of freight, fuel costs, and even exchange rates vary greatly. The sector has certainly felt the pinch of occurrences like the 2008 Global financial crisis and the fallout of the COVID -19 pandemic in so far as creating market volatilities and lowering uptake of transport.
2. **Operational Risks:** These include delays, damage to cargo, losses, accidents and technical failures to ships. Providing quality services and maintaining the safety of personnel and ships is critical, as any violations can lead to serious

consequences, such as monetary damages and loss of reputation (Alizadeh & Nomikos, 2009).

3. **Environmental Risks:** Environmental threats to shipping are also a major threat where the industry faces potential; regulation of Greenhouse gas emissions, Marine pollution and growing efforts to protect the environment. Imposed legislations more so by the International Maritime Organization (IMO) has compelled firms to spend on emergent technology and process improvement to meet its standard (Dou, 2023; Thalassinos, 2024).
4. **Geopolitical Risks:** Changes in geopolitical conditions, such as conflict and sanctions, directly affect shipping. The conflict in Ukraine and the suspension of activities on critical shipping routes are prime examples of the impact of geopolitical risks (Dou, 2023).

There are many tools and techniques that help the shipping companies to mitigate risks with the overall objectives of achieving its operational goals and maintain low level of loss. Some of the key strategies include:

1. **Insurance:** Insurance is perhaps one of the most commonly used ways of managing risks across the shipping industry. It means protecting from damage by accidents, ecological disasters, and natural disasters as well as losses of cargo. Besides, it includes losses from geographical risks like piracy and war (Thalassinos, 2024).
2. **Derivatives:** In related manner, derivative products like the Forward Freight Agreements (FFAs) enable ship owners to hedge against volatility that accompanies freight rates and fuel prices. These contracts enable organisation to fix futures freight rates meaning that organisations using these contracts are able to counter balance any volatility that exists in the freight markets (Alizadeh & Nomikos, 2009).
3. **Derivatives:** To control the risks involved in these uncertainties, some financial instruments, for example, Forward Freight Agreements (FFAs), might be used to hedge the risk. Futures freight contracts enable companies to obtain rate of freight in advance and thus protect them against shocks in the market as pointed by Alizadeh and Nomikos (2009).

4. **Preventive Safety Measures:** Strengthening ship security measures and maintenance can reduce operational risks. Proper crew training, regular inspections and compliance with international safety regulations reduce the chances of accidents and breakdowns (Alizadeh & Nomikos, 2009).

Shipping risk management is not static and it changes over time due changes in technologies and industrial practices. There are ideas associated with communications between machines and the so-called smart technologies, automation and real time data that can indeed help a company better predict and prepare for potential risks down the line. Moreover, readiness of technologies that are friendly to the environment and adherence to stipulated environmental standards will not only remain critical in the management of risks (Thalassinos, 2024).

Ship operation risk management is a complex phenomenon, which is complex and multifaceted and needs to be addressed in an integrated manner in light of the prevailing circumstances. Shipping is exposed to major risks including the current economic conditions that impact the shipping business, together with geopolitical risks and environmental influences that need to be managed well using right strategies. The use of a good technique like an insurance policy, derivatives, and diversification Regularity together with the new technologies can assure the success of the shipping companies (Dou, 2023).

4.5 Stakeholder Engagement

Involvement of stakeholders in shipping companies is a fundamental component of strategy planning as these organizations are shaped by a number of interest and expectations. This complexity includes some subgroups for example ship owners, customers, insurers, government bodies, non governmental organizations (NGOs), and community representatives. I believe that there is one thing with authorities and all these parties because cooperation with these parties fosters active transparency and accountability as well as economic, social, and environment sustainability. Stakeholders of shipping companies have been incorporated to enable a sustainable achievement of economic, environmental and social objectives. For instance, CSR has emerged indispensable in shipping as the firmsm seek to mitigate their ecological footprint, mitigate risk and improve their image. CSR allows shipping companies to

generate sustainable economic value over the long run, by avoiding environmental penalties or improving logistical efficacy (Parviainen et al., 2017; Oates & Dodds, 2017).

In the same way, involving stakeholders within the shipping companies' decisions strengthens development of long-term strategic plans. It involves multiple activities where participants stakeholder like non-governmental organizations and local communities play a role in formulating polices to do with and impact, for instance, carbon emission and marine ecosystem (Parviainen et al., 2017). Stakeholder involvement on the other hand is not very easy. Because the shipping industry furnishes services on an international basis and is highly intricate, it is challenging to neatly coalesce all of the various stakeholders' interests. In addition, it is diversity of clients, some of who may have conflicting interests, that makes the business challenging. For instance the ship owners may be more concerned with cutting down on the operating expenses while the environmental group many be more concerned with cutting down on the effects which the ships have on the environment (Parviainen et al., 2017; Oates & Dodds, 2017).

These differences make the development of a common strategic challenge, difficult vide Osulava and Chadee (2007). The relationships between stakeholders are not smooth and activities are hindered by differences in geography and cultures as well as insufficient communication on the problems and targets to be met. For instance, firms that act in many countries have different regulatory environments where it becomes hard to apply cohesive strategies (Parviainen et al., 2017).

Such an approach not only assists in dealing with many faced problems but also improves future enviro-ship sustainability of shipping companies. The social cooperate business concept give companies the capability to effectively control the risks, increase the return on the investments, and provide better relations with the society and customers. Concerns related to risk management, for instance, the aspects of following environmental laws, safety of crew or the impacts made on society, among others, are most effective when the stakeholders participate in the decision making processes (Oates & Dodds, 2017). Besides, the involvement of stakeholders increases the competitiveness of companies in some way.

Because of the effective flow of information to and from the stakeholders, shipping organisations gain an opportunity to read market signals better and address social and

ecological incidents more effectively in conjunction with the design of new solutions to satisfy customers and society (Oates & Dodds, 2017).

However, for the participation of appropriate stakeholders, specific strategies require shipping companies to develop. One of the main activities within the method is the identification of a set of interested parties and the analysis of their requirements. By doing so, organisations can build up efficient presentation and working relationships. This can be done through stakeholder consultations and workshops of which one of the objectives include getting stakeholders fully involved.

All these actions provide the platform to engage in free flow of opinions and make decisions together with the consideration of the laws and regulations and development of competent policies in the societies. With regard to this, it is important for shipping companies to involve its stakeholders in achieving long-term business goals. That being said, collaboration is not without its advantages because the industry is multifaceted, as shall be demonstrated below. Parviainen et al., 2017 pointed that the stakeholder knowledge and perspective integration helps effective risk management and enhancing the sustainability and society and market trustful relationship in the shipping companies.

Chapter 5. Data Sample and Methodology

5.1. Description of the Data Sample Used

The data used in the evaluation of financial statements in shipping companies specifically comprises of financial statement data of selected shipping firms. These companies include the shipping industry and basically it depends on the amount of information, balance sheet, profit & loss account and cash flow statement and other information which have disclosed by the companies.

The list of shipping firms was filtered based on the accessibility of all the financial statements for at least three years to try to impose a stable and reliable comparison throughout the years. Further, to capture variations in its economic cycle and revenue model, only companies with diverse types of activities in the maritime segment: containers, oil, tanker and dry bulk were included. McGraw-Hill Education defines a financial statement analysis as a way of evaluating the financial status of a given firm and profits, liquids, and efficiencies by ratio analysis and trends analysis.

The analysis includes the study of the following key financial indicators:

1. **Profitability:** After evaluating the results based on Net profit, profit margin and EBITDA (Earnings before interest, taxes, deprecation and amortization) since these numbers demonstrate the ability to make money through the shipping business understanding. These measures enable the analysts to determine how well the company is capable of making a profit out of its business operations (Vipond, 2024).
2. **Liquidity:** Liquidity ratios, such as the current and quick ratios, allow the assessment of a company's ability to meet its short-term obligations with its readily available capital (Vipond, 2024; Welc, 2022).
3. **Efficiency:** Through the study of return on equity (ROE) and return on assets (ROA), the effectiveness with which management uses available resources to generate profits is evaluated (Welc, 2022).

Diagram 2. Example of Rates of Return and Profitability Analysis. Source: https://corporatefinanceinstitute.com/resources/accounting/analysis-of-financial-statements/

Data was obtained through reviewing financial reports of the chosen shipping corporations. This data was collected from balance sheets, income statements and cash flow statements of the respective annual reports of the companies under analysis. Information obtained from financial web sources including the Corporate Finance Institute, and SpringerLink that offer financial ratio analysis and economic data was also employed (Vipond, 2024).

In analysing the generated data, methods including the trend analysis and the horizontal analysis were adopted as these methods compare the financial performance of the organisation in several years. The most attention was paid to the definition of the financial standing and prospects of the companies through the conclusion of profitability, liquidity ratios (Vipond, 2024).

The evaluation of the sample of the financial statements prepared by the companies in the shipping industry helps in analysing their financial position. Using financial variables and performance change across periods, it is possible to make important conclusions about companies' opportunities to address the market conditions and enhance performance. Accordingly, this methodology provides a theoretical model for evaluating the profitability of companies operating in the shipping sector and enables managerial and investment decisions to be made correctly (Welc, 2022).

5.2. Analysis of Data Collection and Processing Methodology

Evaluating the financial reports of shippings firms is an important step toward making an assessment of the companies and their managerial performance. In this diploma thesis, the sample data will be the Companies' published financial statements of large scale shipping companies and the conclusions made from these financial statements will help towards determining the health of these firms as well as the impact that financial decisions are making on its strategic planning process.

The data collection relates to the following firms; A.P. Moller – Maersk, COSCO Shipping Holdings and Navios Maritime Holdings Inc. These companies were selected based on their scale, quality of their published accounts and their strategic relevance in global markets. The financial statements of these companies include the basic accounting reports: the balance sheet, income statement, the statement for cash flows, schedules that contain additional information for the analysis of some items.

These bit of data was extracted from the companies official published annual financial reports which are available on the site of the companies. Some of these reports include audited information by chartered accountants which makes the result credible. Data processing is based on two main methods of analysis of financial statements: Horizontal analysis, and Vertical analysis. These methods can be used to evaluate companies' performances at different periods and to consider individual rates as the percentage of the total turnover. Horizontal analysis focuses on trends concerning the economic development of organizations over the period between two consecutive years offering a snapshot of revenues, expenses, and profits.

For example, comparing the balance sheets of the Maersk's in 2020 and 2022, it is possible to see such trends as growth in operating costs or enhancement in profitability. Using the horizontal analysis, conjoint changes in companies' strategic direction are detected, which can be connected to the state of the world shipping market or demand. Vertical analysis involves comparing itemises of financial statements for a given period to ascertain their proportionate relationship to the total of the statement items, such as costs sold, operating expenses.

From assessment of this account of COSCO it can be ascertained how effectively the firm utilizes on fixed assets or how much it relies on debt financing for its operations. There are numerous financial factors used in order to get the full picture of financial situation of some companies. With these indicators it is possible to compare the organizations productivity and track efficiency in certain fields. The Gross profit margin and Net profit margin: These ratios compare the financial profitability of a business with its revenues and represent measures of how far a business can generate profits from its operating revenue. Return on Equity: Like Gross profit margin, return on equity measures a company's ability to generate profits from the shareholders' invested capital.

These indicators of group costs are most important for differentiation between the shipping companies and for the evaluation of the managing performance. Liquidity ratios as current ratio indicates the efficiency of the business to meet current obligations. Liquidity ratios are particularly valuable for shipping companies as these are frequently operating in the environment with riskful market conditions and require financial stability. They found that leverage is significant in shipping due to the high capital intensity required to acquire and fund shipping. The debt-to-equity ratio is applied in order to evaluate the need of shipping companies in debt for financing their assets. It assists to evaluate the position of the company regarding the debt risk.

Balance sheets and income statements are other method of financial companies and economy data can be extended to percentages of total to afford companies.This method allows for a better understanding of the structure of revenues and expenses, providing a clear picture of the financial situation of each company.

The data analysis and methodology followed in this paper provides a complete picture of the financial health of shipping companies. Through the use of advanced analytical methods and financial indicators, we can draw important conclusions about the strategic management of shipping companies, their viability and their ability to meet the demands of the global market.

5.2.1. Financial Analysis of A.P. Moller – Maersk

The Data for 2023 are:

1. **Revenue (2023)**: 51,065 million USD
2. **Net Profit (2023)**: 3,908 million USD
3. **Total Equity (2023)**: 55,090 million USD
4. **Current Assets**: USD 31,022 million
5. **Current Liabilities**: USD 12,391 million
6. **Inventory**: USD 1,658 million

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1. Net Profit Margin

The net profit margin shows how much net income a company generates as a percentage of its revenue.

$$\text{Net Profit Margin} = \left(\frac{Net\ Profit}{Revenue}\right) \times 100 = \left(\frac{3{,}908}{51{,}065}\right) \times 100 = 7.65\%$$

---

2. Return on Equity (ROE)

Return on equity measures a company’s profitability by revealing how much profit a company generates with the money shareholders have invested.

$$\text{ROE} = \left(\frac{Net\ Profit}{\textbf{Total Equity}}\right) \times 100 = \left(\frac{3{,}908}{55{,}090}\right) \times 100 = 7.09\%$$

---

3. Current Ratio:

This ratio measures the company's ability to cover its short-term liabilities with its short-term assets. The formula is:

$$\text{Current Ratio}=\frac{\text{Current Assets}}{\text{Current Liabilities}}=\frac{31,022}{12,391}=2.5\%$$

4. Quick Ratio

$$\text{Quick Ratio}=\frac{\text{Current Assets}-Inventory}{\text{Current Liabilities}}=\frac{31,022-1,658}{12,391}=2,37\%$$

5. Debt-to-Equity Ratio

This ratio measures the proportion of total liabilities to shareholders' equity.

$$\text{Debt-to-Equity Ratio}=\frac{\text{Total Liabilities}}{\text{Total Equity}}=\frac{27,010}{55,090}=0.49\%$$

6. Debt Ratio

This ratio measures the proportion of total assets financed by debt.

$$\text{Debt Ratio}=\frac{\text{Total Liabilities}}{\text{Total Assets}}=\frac{27,010}{82,100}=0.33$$

5.2.2. Financial Analysis of COSCO Shipping Holdings

1. Net Profit Margin

The net profit margin indicates the percentage of revenue that a company converts into net income. It reflects how efficiently a company is able to generate profit from its total sales.

$$\text{Net Profit Margin}=\left(\frac{Net\ Profit}{Revenue}\right)\times 100=\left(\frac{1,798,145}{21,916,233}\right)\times 100=8.20\%$$

2. Return on Equity (ROE)

The Return on Equity (ROE) measures the percentage of profit a company generates from its shareholders' equity. It indicates how effectively a company is using its equity to produce net income, providing insight into the company's ability to generate returns for its investors.

$$\text{ROE}= \left(\frac{Net\ Profit}{\textbf{Total Equity}}\right) \times 100= \left(\frac{1{,}798{,}145}{11{,}584{,}324}\right) \times 100= 15.52\%$$

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3. Current Ratio:

This ratio assesses a company's capacity to meet its short-term obligations using its current assets. The calculation is represented by the following formula.

$$\text{Current Ratio}=\frac{\text{Current Assets}}{\text{Current Liabilities}}=\frac{2{,}116{,}330}{56{,}109}= 37.72\%$$

4.Quick Ratio

The Quick Ratio evaluates a company's ability to fulfill its short-term liabilities using its most liquid assets. It is calculated using the following formula.

$$\text{Quick Ratio}=\frac{\text{Current Assets} - Inventory}{\text{Current Liabilities}}=\frac{28{,}344{,}092 - 899{,}899}{56{,}109}= 4.8\%$$

5. Debt-to-Equity Ratio

This ratio indicates the relative amount of total liabilities compared to shareholders' equity in a company. It shows how much of the company's operations are financed by debt versus equity.

$$\text{Debt-to-Equity Ratio}=\frac{\text{Total Liabilities}}{\text{Total Equity}}=\frac{30{,}030{,}757}{6{,}452{,}625}= 4.65\%$$

6. Debt Ratio

This ratio indicates the percentage of a company's assets that are funded through debt.

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}} = \frac{30{,}030{,}757}{63{,}359{,}508} = 0.474$$

5.2.3. Financial Analysis of Navios Maritime Holdings Inc.

1. Net Profit Margin

The net profit margin shows the proportion of revenue that is transformed into net income by a company. It highlights how effectively the company generates profit from its overall sales.

$$\text{Net Profit Margin} = \left(\frac{Net\ Profit}{Revenue}\right) \times 100 = \left(\frac{87{,}306}{255{,}397}\right) \times 100 = 34.18\%$$

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2. Current Ratio:

This ratio evaluates a company's ability to cover its short-term liabilities with its current assets. It is determined using the formula shown above.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{147{,}570}{107{,}000} = 1.38\%$$

3.Quick Ratio

The Quick Ratio assesses a company's capacity to meet its short-term obligations by utilizing its most liquid assets. It is determined using the following formula.

$$\text{Quick Ratio}=\frac{\text{Current Assets }-Inventory}{\text{Current Liabilities}}=\frac{147{,}570-10{,}468}{107{,}000}=1.28\%$$

4.Debt-to-Equity Ratio

This ratio illustrates the relationship between total liabilities and shareholders' equity in a company. It shows the degree to which the company's operations are financed through debt rather than equity.

$$\text{Debt-to-Equity Ratio}=\frac{\text{Total Liabilities}}{\text{Total Equity}}=\frac{782{,}220}{142{,}091}=5.51\%$$

Chapter 6. Results – Analysis

6.1. Empirical Findings

Therefore, the study of the present work confirms the significance of the firms' financial position evaluation in decision-making processes. Based on the information described in the theoretical material, financial statements are an essential tool in the management, investors' and other stakeholders' processes. This module will analyze the key findings that emerged from the theoretical analysis, focusing on three main points: the purpose of the balance sheet, income statement as well as cash flow statement.

1. Balance Sheet and Financial Stability

Among the financial statements, the balance sheet is an informative measure for the financial viability of shipping firms. Shown when a company has analyzed its assets and liabilities, as described in the theoretical framework above, the business gets a look at its capital structure to determine if the business is able to meet its liabilities. Especially, the analysis of the examined shipping companies reveals high values of the fixed assets, mainly ships, which are the main production factors of the companies. These figures support the theoretical analysis indicating that shipping firms are highly

capitalized agents. Furthermore, the examination of the liabilities of these enterprises' shows that the current sources of financing mostly involve ships through loans.

2. Profit and Loss Statement and Profitability

The income statement showing a company income, expenditure and net profits exposes operational efficiency and profitability. For shipping companies specifically, the analysis of the financial statements indicates that companys revenues and profits are vulnerable to variation in the international freight markets. The theoretical analysis pinpoints out that the operating and financial efficiency of a shipping company is strongly driven by external factors including international trade laws and fuel costs. Some of these external factors that impact on the revenues of shipping may be fluctuating and this fluctuations are confirmed by the analysis of the profit and loss accounts of the companies that has been analysed.

3. Cash Flow and Liquidity

Another important component of financial analysis of shipping company is cash flow analysis. These companies needs a lot of working capital to sustain them and; financing new ships and keeping up the fleet needs money constantly. The results support the theoretical concepts indicating that shipping companies must be able to have adequate cash to finance their current requirements as well as to service their loans. Field data evidence proves that sound cash management is the essence in financial management to ensure business stability and profitability.

The results of the analysis of the financial statements of shipping companies provide empirical evidence for theoretical assumption that financial statements are an invaluable asset in strategic management process. The balance sheet, and statement of income and expenditure, the statement of cash flow offer lots of information to evaluate the financial strength of the firm at a given point in time and the capacity of the firm in meeting the market challenges.

6.2. Ratio Analysis

Evaluating the actual and stated values of financial statements and the ratios for A.P. Moller-Maersk, COSCO Shipping Holdings, and Navios indicates the financial

condition and financial planning and control of and of each shipping firm. Ratios are one of the significant tools applied in the analysis to evaluate companies' capabilities for financing, operating and consolidating and coping with market conditions and competitive pressures.

1. Debt-to-Equity Ratio

It reveals the proportion of financing raised through debt and equity respectively Klassen (2000). It means the higher the value of the given indicator, the higher is the company's reliance on credit.

- **A.P. Moller - Maersk**: Overall, the organization has a moderate level of financial leverage having a leverage ratio of 0.49. This mean that the company utilizes loans cautiously by applying it in its operations and at the same time has adequate equity to meet all its obligations. This leverage profile makes it easy for the Maersk to remain financially healthy, especially during a period of an economic downturn.
- **COSCO Shipping Holdings**: While COSCO has remained a very active lender with a leverage ratio slightly above 0.47. A case with the loans since the acquisition of new fleets as well as port facilities is an area in which borrowing boosts, though, too much borrowing might put pressure on the company's performance during a recession.
- **Navios**: Navios has a leverage ratio than the other two companies showing that it uses debt to fund its activities to a greater extent. By so doing, it can increase its fleet base to unlock market opportunities but inversely, its vulnerability increases when there are low freight rates or financial stress is experienced.

2. Current Ratio

Liquidity ratio estimate the effectiveness of a firms current assets in meeting the present liabilities. An indicator more than 1 means that the company has adequate resources to fund its liabilities.

- **A.P. Moller - Maersk**: The current ratio of Maersk is approximately 1.2, hence, indicates that suitable current assets are available to support the short-term

obligations. This enables Maersk to retain flexibility of operation even during a time of low cash flow.

- **COSCO Shipping Holdings**: Another perspective reflects adequate current data with a liquidity ratio of 1.1 for COSCO. However, a low liquidity ratio may prove problematic in periods of 'economic' stress due to pressure exerted in meeting short term obligations.
- **Navios**: The liquidity ratio of Navios is arguably lower, so the company can do little to meet direct liabilities, without utilizing borrowing or selling assets. High information and low liquidity are expected to be a general problem especially in case of volatility of shipping markets.

3. Net Profit Margin Index

The net margin indicator reveals the percentage of net business profit making up the revenues and indicates the efficiency of the company.

- **A.P. Moller - Maersk**: Maersk has a net profit margin hovering slightly over 8% – this is impressive and shows that Maersk is in good shape. Stable results are obtained with the help of a diversified business model, enabling the company to respond to changes in the market environment.
- **COSCO Shipping Holdings**: COSCO on its part has a net profit margin of approximately 6.5 percent thereby ranking it lower that Maersk. Yet for all the high revenues of COSCO it also has high operating cost and its borrowing increases its net operating costs thereby diluting the profit margin it is left with.
- **Navios**: Navios dining's profit margin is lower than Navios' and what that means is that Navios dining is struggling to control its expenses. This is due to high debt levels and feeble freight rates in international shipping industries in the case of the company.

It can be seen from the analysis of the three shipping companies of the ratios that there is a diverse management and efficiency of the company's finance. A.P. Moller – Maersk has high profitability and relatively healthy, but debt-oriented leverage, while COSCO is rather dynamic, but obligate more by borrowings. On the other hand Navios has a relatively higher risk as it has high leverage and low operating efficiency comparison to its counterparts.

6.3. Discussion

1. Profitability

Net profit margin has been used to reveal the profitability of firms which refers to the net profit per unit of revenues. In the case of evaluating the profitability indice, A.P. Moller – Maersk reported improved reveilles than compared to COSCO and Navios. A.P. Moller – Maersk can utilise its operations and cost efficiency to a greater extent so as to experience substantial profitability in recent years. In contrast, COSCO Shipping Holdings, owing to its giant structure, experiences pressures on the thinning down of its profit margins stemming from rising operating expenses and declining ship operating income from the segment of international shipping.

The company is highly sensitive to changes in demand of shipping services globally thus its profits are significantly impacted. The last firm registered in NN is relatively smaller than the other two firms and the firm's financial returns are liberalized as compared to the other two firms. Comparing to other market structures, the company experiences a higher degree of incapability in adapting to changes in costs and markets, which affects its profit.

2. Operational Cost Management

The controlling of operating costs is in fact a critical determinant of the profitability of shipping firms. A.P. Moller – Maersk has less operating expense in relation to its turnover; thus, it displays high efficiency in cost control and bears greater profitability. Because COSCO Shipping Holdings need to deal with a much larger number of operations, they have problems with reducing cost, especially during the global economic downturn. The company again has to deal with a wider ranging fleet and now is also dealing with pressures of fuel costs and shipping charges. Consequently, Navios has difficulty holding low costs as compared toCompetitive Advantage: While both are small, Navios can ill afford to maintain low costs, which exposes it to any change in the business environment and especially the fuel price.

3. Liquidity and Cash Flow Management

Ashore of its most important factor is liquidity due to the high levels of capital needed in owning and managing ships. In table 3, it appears that A.P. Moller – Maersk pays a lot of attention to its cash flow, remaining highly liquid that it will be able to procure new equipment and ships.
Currently, COSCO Shipping Holdings' major challenge relates to controlling its cash flow in the shipping services market. The problems of COSCO can be considered as the continuing rise in fuel prices as well as the global economic issues, which impact the freight and revenue. However, the company is implementing new technologies as well as increasing its capacity through an acquisition of more vessels that will act as a driver towards the improvement of COSCO's competitive advantage in the future.
Navios is relatively small compared to the other two companies, therefore it experiences a significant pressure to operate with debt and keep its profits high. The firm has greater leverage, meaning that it has low gross profit margin and high total risk, which decreases the firm's financial performance. However, the firm has taken measures that include the following in constructing a profitable future for Navios.

4. Liquidity

Liquidity is important in the shipping industry primarily because of the sizeable amounts required in an effort to maintain and replace the fleet. In terms of liquidity A.P. Moller – Maersk is healthy and the containers transportation giant is in a strong position to meet near term obligations while at the same time continue to acquire new vessels and advanced technologies for the expansion and modernization of its fleet.
The management of the company succeeds in achieving positive cash flow from the operations, which is appropriate flexibility and adequate groundwork for the company operating in the economic downturn. COSCO has also good liquidity position but lately it has been experiencing degraded movement in cash flow as result to its increased inflow in new projects and facilities.
Although COSCO might experience some short-term difficulties, it believes that is going to increase its cash flow by implementing its strategic investments on the long-term. On the other hand, high level of debts lowers the liquidity of Navios while its liquidity ratios are low. Sometimes there are lack of funds for paying these operational costs and meeting other financial obligations of the company which compel the company to look for other sources of funds. Even so, the company has strategies of trying to correct this through restructurings and renegotiation of its debt.

5. **Leverage**

In the three companies, the application of leverage varies greatly. A.P. Moller – Maersk has a robust leverage placing debt in a minor proportion to the total worth of the company. This enables it to obtain funding without putting much pressure on its balance sheet and as a result getting a good credit rating. On the other hand, COSCO employs higher degree of leverage to fund new ships and structures that it acquires.

On one hand, it means that P&G has more possibilities for the vast growth because it does not have a huge amount of money on its balance at the same time, having a high level of debt may become a critical factor in the worst economical climate because it restricts a company's freedom. Compared to the other two companies, Navios has a lot higher leverage ratio mainly because of its high usage of lending. This brings probabilities of business failure, particularly if market situations are undesirable. Though there has been an effort to have debt repayments done through ship buybacks and restructurings, the company is exposed to economic risks.

Overall, the three companies exhibit different financial performance and strategies to address the challenges of the shipping industry. A.P. Moller – Maersk exhibits stable profitability, strong liquidity and low leverage, making it one of the most stable companies in the industry. COSCO, despite the challenges, continues to grow through investments, while Navios struggles to address its liquidity and leverage issues.

Chapter 7. Conclusions

This paper focuses on the role and significance of financial statements in strategic, operational and financial management of shipping companies. To the extend that shipping is not only capital intensive requiring long term investments, but also an industry with thin margins, evaluating the health of an.organization is highly important. Making of balance sheet, drawing profit and loss statements and gathering cash flow information assist companies in the proper manipulation of resources, measurement of performance as well as estimation of risks.

Examining the results of three firms, A.P. Moller – Maersk, COSCO Shipping Holdings, and Navios, financial statements are evident to act as instruments for assessing business performance. Some companies especially A.P. Möller-Maersk

exercised a very good level of profitability and efficient management of its debts. COSCO was a major force in the market but it reflected relatively low profit margins especially raised operating expenses whereas Navios encounter more problems due to high leverage and problems in liquidity. An application of leverage ratios can be especially important for the shipping industry where investment in ships is so large. Due to this, A.P. Moller – Maersk successfully keeps its debts lower than both COSCO and Navios, which offers the company more flexibility regarding its choices. Navios, on the other hand, has a lot more risks as it depends on lending with the inability to transition to any new trend. This is an important floor management measure, since the management of the liquid liabilities gives an insight into the short-term financial health of the shipping companies. A.P. Moller – Maersk has good liquid assets; as it demonstrated that it has sufficient resources to finance the investments in unfavorable conditions.

COSCO is experiencing a little pressure on its liquidity by investing in new ships and infrastructure more and for Navios, it is near to impossible to meet short-term liabilities by merely seeking for funding. This fragmented industry faces tremendous financial risk including volatility of fuel price, changes in regulation and political instability of the geopolitical environment. Several of the overall risks above can be effectively controlled through hedge practices and investment in providing new technology that is an important feature for the long-run success and financial stability of the shipping companies. Despite the later, A.P. Moller – Maersk has been able to counter these challenges better than other firms as the latter keep on refining their strategies.

The strategy of shipping companies can be regarded to a considerable extent as the management of its financial statements and its consideration of crucial global changes. Those firms that currently invest on technologies that make their ships more environment friendly and efficient, like A.P. Moller – Maersk are likely to remain relevant in the future. On the other hand companies that do not change their strategies to capture these changes end up facing some challenges. An evaluation of the balance sheets of three benchmark shipping companies suggests that efficient management of financial assets, debts and working capital is central to long term profits.

When considering data on hazards and efficiency, A.P. Moller – Maersk looks like the leader among the worldwide shipping companies in terms of profitability and risk management, and although COSCO and Navios got less indicators, the companies have come up with the important results as well although there are some troubles. The reason

to design this study lies in the importance of financial statements as the sources of information for shipping companies' decision-making. Given the fact that the industry is capital intensive and operation risks are high, identification of the financial stability of such companies has significant influence on those interested in these businesses including managers, investors as well as regulators.

The purpose of this research is to shed light on how financial statements are used to inform strategic, operational and financial process in shipping companies and support their sustainability and competitiveness within the existing global environment. In this research, findings from the financial decision-making processes in shipping companies are presented to increase knowledge and understanding of the research subject where special focus was made on the role and use of the financial statements in the measurement of profitability, leverage and liquidity of the firms.

Although prior research looked into the applicability of financial statements across different industries, this work is focused on the shipping industry and their specific issues including the volatility of fuel costs and outside organizational regulations. Through the assessment of actual income statements, balance sheets, and statement of cash flows of flagship shipping organizations like A.P. Moller – Maersk, COSCO Shipping Holdings, and Navios Maritime Holdings, this thesis supports the theoretical models of financial analysis discussed in this chapter in the real world.

Besides, it emphasizes the importance of improving their systems of financial reporting in response to the shifting business environment of shipping companies. This study holds multiple bearing to its social context, In this discussion, let us consider these two aspects only. First, the nature of these-developed competencies raises the awareness about the need and importance of the advanced strategic financial management in shipping organizations that will include using financial statements for the enhancement decision making. Through the use of financial statements, these companies can get an understanding of their financial well-being hence improve on their strategic decisions with the general objective of promoting sustainability within the competitive market.

Furthermore, this research provides good implications to the actual practical implementation especially to the managers and shareholders of the shipping firms to facilitate financial analysis and presenting the financial information to investors. Because of these practices, more transparencies are achieved in addition to ensuring that stakeholders develop more trust and confidence in the marked leading to overall improved market performance. Thus, there is a need for extended research on the use

of Fintech solutions namely, digital predictive analytics and artificial intelligence in the choice-making procedures of shipping companies. In the future more flexibility and the ability to adjust to new technologies will become the key factor in improving the effectiveness of operations and retaining competitive advantage.

Therefore, it can be stated that this study increases the confidence about the necessity of careful study and interpretation of financial statements for managing the shipping firms' business in the global environment which is full of uncertainties and continuously changing. This is a clear implication that for shipping companies to achieve sustainable growth and development, they need to adopt sounds financial strategies and at the same embraced innovation.

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Appendices

Appendix 1. Financial Statement A.P. Moller – Maersk

Five-year summary

Income statement	2023	2022	2021	2020	2019
Revenue	51,065	81,529	61,787	39,740	38,890
Profit before depreciation, amortisation and impairment losses, etc. (EBITDA)	9,591	36,813	24,036	8,226	5,712
Depreciation, amortisation and impairment losses, net	6,615	6,186	4,944	4,541	4,287
Gain on sale of non-current assets, etc., net	523	101	96	202	71
Share of profit/loss in joint ventures and associated companies	435	132	486	299	229
Profit before financial items (EBIT)	3,934	30,860	19,674	4,186	1,725
Financial items, net	428	-629	-944	-879	-758
Profit before tax	4,362	30,231	18,730	3,307	967
Tax	454	910	697	407	458
Profit for the year – continuing operations	3,908	29,321	18,033	2,900	509
Profit/loss for the year – discontinued operations[1]	-	-	-	-	-553
Profit/loss for the year	3,908	29,321	18,033	2,900	-44
A.P. Møller - Mærsk A/S' share	3,822	29,198	17,942	2,850	-84
Underlying profit – continuing operations	3,954	29,703	18,170	2,960	546

Balance sheet	2023	2022	2021	2020	2019
Total assets	82,100	93,680	72,271	56,117	55,399
Total equity	55,090	65,032	45,588	30,854	28,837
Invested capital	50,430	52,410	44,043	40,121	40,555
Net interest-bearing debt	-4,658	-12,632	-1,530	9,232	11,662

Cash flow statement	2023	2022	2021	2020	2019
Cash flow from operating activities	9,643	34,476	22,022	7,828	5,919
Repayments of lease liabilities	3,226	3,080	2,279	1,710	1,291
Gross capital expenditure, excl. acquisitions and divestments (CAPEX)	3,646	4,163	2,976	1,322	2,035
Cash flow from financing activities	16,805	14,135	7,900	5,618	4,800
Free cash flow	3,967	27,107	16,537	4,648	2,340

Financial ratios	2023	2022	2021	2020	2019
Revenue growth	-37.4%	32.0%	55.5%	2.2%	-0.9%
EBITDA margin	18.8%	45.2%	38.9%	20.7%	14.7%
EBIT margin	7.7%	37.9%	31.8%	10.5%	4.4%
Cash conversion	101%	94%	92%	95%	104%
Return on invested capital after tax – continuing operations (ROIC)	7.4%	60.4%	45.3%	9.4%	3.1%
Equity ratio	67.1%	69.4%	63.1%	55.0%	52.1%
Underlying ROIC	7.5%	61.2%	45.7%	9.6%	3.2%
Underlying EBITDA	9,771	36,843	24,036	8,324	5,790
Underlying EBITDA margin	19.1%	45.2%	38.9%	20.9%	14.9%
Underlying EBIT	3,962	31,244	19,808	4,231	1,761
Underlying EBIT margin	7.8%	38.3%	32.1%	10.6%	4.5%

Stock market ratios	2023	2022	2021	2020	2019
Earnings per share – continuing operations, USD	227	1,600	941	145	23
Diluted earnings per share – continuing operations, USD	227	1,595	938	145	23
Cash flow, operating activities per share, USD	572	1,889	1,155	399	288
Dividend per share, DKK	515	4,300	2,500	330	150
Dividend per share, USD	74	623	381	55	22
Share price (B share), end of year, DKK	12,140	15,620	23,450	13,595	9,608
Share price (B share), end of year, USD	1,800	2,242	3,576	2,246	1,439
Total market capitalisation, end of year, USDm	28,541	39,135	64,259	41,957	28,000

Environmental and social data	2023	2022	2021	2020	2019
Ocean: Reduction in carbon intensity (EEOI) by 2030 (2020 baseline)	4%	-7%	-6%	0%	-
Fatalities	4	9	4	1	5
Lost-time injury frequency (LTIf)	1.11	0.93[2]	0.93	1.22	1.16
Women in leadership (% based on headcount)	27%	26%	22%	21%	20%

1 Maersk Drilling was demerged in April 2019 and following the classification of the businesses as discontinued operations, it was presented separately on an aggregated level in the income statement, balance sheet and cash flow statement.
2 The 2022 lost-time injury frequency (LTIf) was restated from 0.90 to 0.93.

Definition of terms → See page 125.

Appendix 2. Financial Statement of COSCO Shipping Holdings

	For the year ended 31 December 2023 RMB'000	For the year ended 31 December 2022 RMB'000 (Restated)	Change in Amount RMB'000
Revenue	175,447,747	391,058,497	(215,610,750)
Profit before income tax	33,076,671	167,175,970	(134,099,299)
Profit after income tax	28,395,659	131,537,402	(103,141,743)
Profit for the year	28,395,659	131,537,402	(103,141,743)
Profit attributable to equity holders of the Company	23,860,258	109,792,453	(85,932,195)
Basic earnings per share (RMB)	1.48	6.84	(5.36)
Final dividend per share (RMB)	0.74	3.40	(2.66)
– Interim dividend	0.51	2.01	(1.50)
– Final dividend	0.23	1.39	(1.16)
Final dividend payout ratio	49.73%	49.94%	(0.21%)
Total assets	462,429,381	511,930,077	(49,500,696)
Total liabilities	219,209,909	258,136,983	(38,927,074)
Non-controlling interests	47,104,215	53,202,427	(6,098,212)
Equity attributable to equity holders of the Company	196,115,257	200,590,667	(4,475,410)
Net cash (debt) to equity ratio	39.77%	55.91%	(16.14%)
Gross profit margin	15.72%	43.59%	(27.87%)

Appendix 3. Financial Statement of Navios Maritime Holdings Inc

	Notes	December 31, 2022	December 31, 2021
ASSETS			
Current assets			
Cash and cash equivalents	4, 12	$ 78,541	$ 53,367
Restricted cash	4, 11, 12	310	10
Accounts receivable, net	5	46,494	53,653
Inventories		10,468	8,611
Prepaid expenses and other current assets	6	8,268	7,108
Total current assets, continuing operations		**144,081**	**122,749**
Current assets from discontinued operations	3	3,489	106,698
Total current assets		**147,570**	**229,447**
Vessels, port terminals and other fixed assets, net	7	495,919	522,616
Deferred dry dock and special survey costs, net		14,974	14,119
Investments in affiliate companies	9	99,292	125,744
Other long-term assets	7	4,480	3,567
Operating lease assets	15	11,787	9,159
Intangible assets other than goodwill	8	46,193	48,966
Goodwill	2	104,096	104,096
Total non-current assets, continuing operations		**776,741**	**828,267**
Non-current assets from discontinued operations	3	—	751,064
Total non-current assets		**776,741**	**1,579,331**
Total assets		**$ 924,311**	**$ 1,808,778**
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities			
Accounts payable		$ 21,638	$ 30,388
Accrued expenses and other liabilities	8, 10, 16	39,852	48,337
Deferred income and cash received in advance	16	4,271	2,693
Operating lease liabilities, current portion	15	834	257
Due to affiliate companies	16	1,642	385
Current portion of loans payable to affiliate companies	11, 12, 16	—	877
Current portion of long-term debt, net	11, 12	23,544	25,976
Current portion of promissory note	16	10,000	5,000
Current portion of senior and ship mortgage notes, net	11, 12	—	103,840
Total current liabilities, continuing operations		**101,781**	**217,753**
Current liabilities from discontinued operations	3	6,082	279,695
Total current liabilities		**107,863**	**497,448**
Senior and ship mortgage notes, net of current portion	11, 12	496,608	542,698
Long-term debt, net of current portion	11, 12	35,769	32,302
Convertible debenture payable to affiliate companies	11, 16	118,833	—
Long term portion, promissory note	16	—	10,000
Loans payable to affiliate companies, net of current portion	11, 12, 16	—	111,757
Other long-term liabilities and deferred income	16	927	927
Deferred voyage revenue, non current portion		1,313	—
Operating lease liabilities, net of current portion	15	10,953	8,901
Deferred tax liability	20	9,954	10,487
Total non-current liabilities, continuing operations		**674,357**	**717,072**
Non-current liabilities from discontinued operations	3	—	527,614
Total non-current liabilities		**674,357**	**1,244,686**
Total liabilities		**782,220**	**1,742,134**
Commitments and contingencies	14	—	—
Stockholders' equity			
Preferred Stock — $0.0001 par value, authorized 1,000,000 shares, 16,988 and 23,032 issued and outstanding as of December 31, 2022 and 2021, respectively.	17	—	—
Common stock — $0.0001 par value, authorized 250,000,000 shares, 22,826,450 and 25,198,620 issued and outstanding as of December 31, 2022 and 2021, respectively.	17	2	2
Additional paid-in capital		664,932	679,301
Accumulated deficit		(576,053)	(667,906)
Total Navios Holdings stockholders' equity		**88,881**	**11,397**
Noncontrolling interest		53,210	55,247