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How Financial Ratio Analysis Could Help To Evaluate Turkish Airline Companies' Financial Performance In Global Markets.

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Supervised by

Timothy Perry

**Dissertation submitted in partial fulfilment for the Degree of Master of Science
in International Trade, Strategy & Operations**

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ABSTRACT

The airline industry has an important place in the economies of countries as well as in the global economy. It is estimated that the economic size of the industry has reached \$776 billion by mid-2017 and it is still growing year by year. Like other business organisations, financial analysis of financial statements is a very substantial concept for airline companies in order for them to evaluate the performance within a specific period. The focus of this dissertation's study is a financial ratios analysis of the Turkish airline companies in the global airline industry. Such a study is especially essential for these companies because of the contributions to their financial performance. Although it is of crucial importance, usage of financial ratios in Turkish airline companies has been neglected in current years. The main purpose of this study is to fill this gap by developing a conceptual framework with the help of theoretical and empirical data from the airline industry. In this dissertation, a case study approach has been adopted as a research approach by studying Pegasus Airlines and Turkish Airlines which are two major airline companies in the Turkish airline industry. The conceptual framework was tested with the empirical data which was collected from both primary and secondary sources from airline companies' annual reports. After calculation and comparison, selected ratios were compared with other airline companies around the world and the financial performance for airline companies were evaluated according to the different aspects in this study. Hence, the strengths and limitations of the Turkish airline companies have been revealed by using financial ratio analysis and a set of further suggestions have been made at the end of the study.

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- *All my teachers* for all their supports and *my friends* not leaving me alone during this long journey.

DECLARATION

I have read and understood the rules on cheating, plagiarism and appropriate referencing as outlined in my handbook and I declare that the work contained in this assignment is my own, unless otherwise acknowledged.

No substantial part of the work submitted here has also been submitted by me in other assessments for this or previous degree courses, and I acknowledge that if this has been done an appropriate reduction in the mark I might otherwise have received will be made.

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The project should relate to one or more of the following aspect(s) of trading in an international context:

International sales and marketing, Transport, logistics, supply chain and customs compliance, Financial management, Legal aspects of international trade, Business management and trade strat, Operations and service management.

My project relates to this definition in the following way:
This project concentrates on the financial analysis of Turkish airline companies in global markets. The results of the thesis will provide a validated and revised framework for airline companies around the world and some further suggestions will help to improve their financial performances in international markets. So that, the topic of this dissertation is directly related to financial management of companies in international trade framework.

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1 Introduction

1.1 Introduction

In these days, managers of business organisations should successfully manage their financial structures in order to conduct their business in today's globally competitive markets. As will progressively emerge in this study, it can be said that financial analysis plays a significant role in the management of financial structures in companies.

This introductory chapter presents the main argument of the thesis with the help of some precursory information on the topic. Firstly, the importance of financial analysis of companies and the role of financial analysis in the airline industry will be explained in Section 1.2. Hence, these contexts will constitute the background information of this thesis. Moreover, this preliminary information will inform the reader to realise the importance of financial analysis in airline companies as well as other companies. Section 1.3 firstly introduces the global airline industry; secondly, the Turkish airline industry will be presented along with some airline statistics which show the significance of this industry. In addition, some general information about Turkish Airlines and Pegasus Airlines which are this dissertation's focus companies will be presented. Next, Section 1.4, therefore, is related to the financial performance of these companies as well as the problems in the industry. The author explains the relationship between international trade and the airline industry in Section 1.5. Despite the importance of financial analysis in the airline industry, the existing literature usually involves common financial ratios and the usage of these ratios in all industries. For this reason, the gap in literature will be clarified in Section 1.6 and the main objectives of this study which help this thesis to reach its main purpose will be acknowledged in Section 1.7. The structure of this dissertation will be shown in Section 1.8.

1.2 The Importance of Financial Analysis and Usage of Ratio Analysis

Only several decades ago, the meaning of financial analysis was roughly equal to bookkeeping for company accounts. This situation has been changed with the emergence of modern finance methods which accelerated with the contribution of regulations by governments (Akkizidis et al., 2009). Since intense competition in global markets, companies need more advanced financial systems in order to control their accounts and prevent business risks such as saving or loan crises, cash-flow uncertainties or liquidity problems. Hence, the concept of financial analysis has become a substantial framework rather than just simple bookkeeping.

According to Bragg (2007), financial analysis is a complex process and it involves processing traditional accounting transactions, reviewing the company's operations, evaluating investments, reporting problems and making recommendations to management in companies. Furthermore, Drake and Fabozzi (2012) point out that financial analysis can help to evaluate operating performance which is related to usage of company sources and the financial condition of the companies. Financial condition means satisfying both short and long term obligations such as interest payments and other debts. In order to make a proper financial analysis, analysts should be aware of two main points in essence (Bragg, 2007);

- Before making a financial analysis, the related data should be collected from reliable sources and appropriate financial analysis techniques should be selected for a solid financial analysis.
- The results of financial analyses should be converted into a comprehensive format for every recipient such as managers, shareholders and even customers. Hence, the results of analyses can be interpreted by every recipient in terms of all aspects.

By considering these factors, internal and external users can use these findings for making strategic decisions which are about the managerial, investment and other financial judgments. In essence, Table 1.1 summarises different authors' opinions about the importance of financial analysis:

Authors	Opinions
Fridson and Alvarez (2011)	It is an essential skill for many businesses including corporate finance, creditors, bankers, investment management and even individuals who can engage in financial activities for personal investment decisions
Wahlen et al. (2011)	It helps to identify economic characteristics of firms in industries, to analyse profitability of companies by using financial statements. Finally, it assesses the value of firms and produces further recommendations to increase the value of a company.
Robinson et al. (2009)	The scope of financial analysis includes evaluating alternative investment options, determining the loans requests of firms, forecasting the future income and cash flow balance of firms. In general, analysts examine current financial performance and forecast the future performance of companies.
Subramanyam et al. (2007)	It lessens premonitions and guesses for business decisions and it provides a comprehensible and effective business analysis for firms.
Bettner (2015)	It shows the liquidity, solvency, profitability positions of the company. Furthermore, it helps to understand "timing differences" effects of income and cash flow at companies.
Lewis (2012)	It reveals a lot of information about the performance of companies: what the company owes, what it earns and the value of its assets
Brigham and Houston (2012)	It compares the company's economic performance through the same industry and evaluates its performance over the years.

Table 2.1: The contributions of financial analysis for companies according to different authors (Made by author)

In order to conduct financial analysis, analysts benefit from financial statements as a primary source of data. Income statements and balance sheets involve valuable financial information for analysts who can compare these numbers with other benchmarks such as other companies' financial figures or historical data on the company's own figures. For this reason, analysts (outsiders) or managers (insiders) ought to understand the meaning of each item throughout the income statement, balance sheet and cash flow statement (McKenzie, 2010).

Financial Ratio Analysis

According to Ježovita (2015), financial statement analysis includes several techniques including horizontal (trend) and vertical (common size) analyses, cross-sectional analysis and financial ratio analysis. It can be said that the most common analysis technique, ratio analysis, provides both benefits and drawbacks for firms (Akkizidis et al., 2009). Until now researchers have debated this topic in the literature since 1919 when Alexander Wall introduced the "ratio analysis" concept over the world (Lee Huff et al., 1999). The size of companies, geographical locations, industry characteristics, the environment of economics and even types of firms (private or public) are several variables which can affect the quality of ratio analysis either positively or negatively (Ježovita, 2015).

The Importance of Financial Analysis in the Airline Industry

Despite handling 4.1 billion passengers and transporting 58.2 million tonnes of goods by the middle of 2017 (IATA, 2017), airline companies have faced major financial problems in recent years. Use of commercial airlines as weapons on 11 September 2001, ongoing wars in the Middle East, fuel price shocks and finally the 2008 global crisis have unsettled airline firms' budgets critically. Beyond these challenges, the emergence of Low-cost Carriers (LCC), increasing competition and decreasing revenues has increased the damage of airline firms' budgets and many airline firms have faced liquidity and profitability problems as well (Gourdin, 2016). Despite this pessimistic view, there are many opportunities and business risks in the airline industry and it is possible to utilise these opportunities and diversify the risks with the help of proper financial analysis. It seems that proper financial analysis might help utilise these opportunities and diversify the risks for airline companies.

As mentioned previously, fluctuations in fuel prices, fluctuations in the exchange rates and excessive capacity growth might be important threats which it is necessary for airline companies to monitor to increase their economic performances (Vasigh et al., 2015). For this reason, measuring, monitoring and inspection of financial statements of airline companies play important roles for managers, shareholders, creditors, investors and customers. Like other companies, financial statements are also very important for airline companies and underlying problems can be revealed by conducting financial analysis in the industry.

There are two substantial contributions to financial analysis for airline companies (Vasigh, 2013):

-  Companies can understand their strengths and weakness by comparing themselves with other airlines. Moreover, they can find out their rivals' performances easily.
-  Financial analysis reports summarise airline firms' current financial health and give clues about their future economic performances.

1.3 Turkish Airline Sector In Global Airline Industry

A Short Summary of the Global Airline Industry

After the first usage of the aircraft for military purposes, the commercial use of the aircraft began around the 1930s and the usage of air transportation for both passengers and cargo increased between the 1940s and 1970s around the world. In these years, the airline sector was under the control of governments and there were heavy regulations in the sector (Gourdin, 2016). It can be said that the change in the airline sector began after the mid-1970s in the US and the structure of the sector has transformed into a more competitive form which has provided rapid development in the sector. Figure 1.1 shows the development of global air passengers between the years 1970 and 2013. A new business model, Low-Cost Carriers (LCC), also emerged around the 1970s in the US with the establishment of the Southwest airline. After this period, ticket fares started to decrease and thus, the profitability of companies has been affected negatively due to intense competition in the market (Asahi and Murakami, 2017).



Figure 1.1: The development of air passengers between 1970 and 2013 (Gillen and Morrison, 2015)

Since the 1980s, the role has decreased in the airline sector by removing the restriction over airline firms. Like many other industries, globalisation has also influenced the airline sector and airline companies have been affected positively thanks to advances in global markets (Vasigh, 2013). After the 9/11 terrorist attack in the US, a new period for airline companies began and the profitability of the sector decreased significantly due to fuel price fluctuations and the global financial crisis in 2008. It is forecast that the development of the industry will continue in the years to come. The number of handled passengers will reach 6 billion and the number of departures will grow 60 million in 2030 (ICAO, 2013).

Civil Aviation Market in Turkey

The Turkish civil aviation industry started its activities with the establishment of Turkish Airlines in 1933 and the airline industry was protected by the government restrictions until 1983. This year, the government started to implement liberalisation policies and some additional airline taxes and airport service charges were removed. Private airline firms have also entered the market and subsequently, ticket prices have reduced, the number of airline passengers has started to increase and these issues have led to growth in the airline industry in Turkey during the 1990s. Between 1990 and 2003, the Turkish economy faced financial crises and this period can be called the standstill period for Turkish airline firms.

After 2003, the civil aviation business started to grow with the construction of new airports, increases in flight destinations and making fleet investments. (Acar and Karabulak, 2015). According to ICAO's 2015 annual report, Turkey ranks 11th around the world in terms of the number of passengers and 3rd in terms of aircraft traffic in Europe (DGCA, 2016). Table 1.2 shows the growth statistics of the Turkish aviation market between 2003 and 2014.

	2003	2016	Growth Rate
The number of aircrafts	162	540	233,00%
Seat Capacity	28	100	263,65%
Cargo Capacity	302.737	1.821.600	501,71%
Aircraft Traffic	529.205	1.829.028	245,62%
Passenger Traffic	34.443	173.624	404,09%
Cargo Carried	964.080	2.972.784	208,35%
Number of Employees	65.000	191.716	194,95%
Turnover	\$2.2 billion	\$23.4 billion	963,64%

Table 1.3: The growth statistics for the Turkish aviation market in 2003 and 2014 (adapted from DGCA's Annual Report, 2016)

According to last year's sector report, there are 10 different airline companies in the Turkish Aviation industry and this dissertation's focus companies, Turkish Airlines and Pegasus Airlines, serve 75% of the market (DHMI, 2016).

Turkish Airlines

It was established in 1933 under the control of the national defence minister and the company was the country's sole airline company until 1989 and it acted as a state owned company which served domestic and international flights. Different governments tried to sell the company several times between the years 1983 and 2003 but these transactions were not completed due to bureaucratic obstacles. The company was offered to the public in different years and, after the last offering, its status changed to a private enterprise in 2006. After the changing status, the company has started to extend its flight destinations, more than double, as well as the number of aircraft. New infrastructure investments, sponsorship agreements and increasing the efficiency of operations have also contributed to this achievement. In essence, the new perspective has made the company one of the biggest companies in the world and the company is also known as a "national flag carrier" in Turkey. The brand value of the company reached \$2.2 billion in 2015 (Alcacer and Cekin, 2015).

Pegasus Airlines

After its establishment in 1990 with two aircraft, its success story started in 2005 when it was bought by Esas Holding. The company started to grow continually in the following years and the number of passengers reached 8.6 million in 2010. While the global airline sector was shrinking during 2008 and 2011 due to global recession, Pegasus Airlines was growing in the airline sector with the help of the LCC model. Regarding the seating capacity, the company was awarded "The Fastest Growing Airline" of Europe between 2011 and 2013 by the Official Airline Guide (OAG) report (Pegasus, 2017). Among three LCC companies, the company is the biggest LCC in Turkey and it serves a 28% share of the market for domestic flights and 15% for international flights (DGCA, 2016).

1.4 Problems in the Financial Performance in Turkish Airline Industry

Despite significant continuous development since 2003, some problems have arisen in recent years and have surely affected the financial indicators of the companies. It is easily predictable that the global problems in the aviation sector have also affected the Turkish airline companies. High capacity growth and insufficient demand for international flights can be identified as the main reasons for these problems. Furthermore, security concerns and the Russian aircraft crisis in 2016 also declined the tourist numbers in Turkey. According to the annual reports of Turkish Airlines and Pegasus Airlines, the net income of companies decreased significantly for the year 2016. Moreover, as will be shown in further sections, both common and airline specific ratios are lower than previous years in 2016. Besides these negative issues, it is expected that the sector will enter a recovery period after this year.

In order to analyse the financial problems of companies and to find out where the problems come from, it is important to get help from the financial indicators of the companies. Comparing their financial ratios with other global airline firms will also contribute to an illustration of their financial performance.

1.5 The relationship between International Trade Stream and Airline Industry

It is almost certain that one of the unique features of the airline industry is the international character of the business due to the speed advantage and covering longer distances (Vasigh et al., 2015). In his work, Gourdin (2016) suggests that airline companies should embrace the global markets in order to conduct their business successfully. Therefore, managers should start to think globally instead of from a domestic perspective and it seems that the outcomes of globalisation on the airline industry look like a two-edged sword and include both benefits and drawbacks for companies.

After the emergence of globalisation, global tourism and international trade have rapidly grown and this development positively affected the airline industry. The competition on the supply side of the airline industry increased and this issue provided better products with cheaper prices for airline companies. On the other hand, this competition also reduced ticket fares and the profitability of airlines decreased to a certain level (Vasigh, 2013).

Furthermore, the airline industry is a capital-intensive industry and it requires financing options. Globalisation also enabled airline firms to access finance (Bjelcic, 2012). Operating more than one country requires using different currencies for airline firms. While foreign currencies are increasing the income sources of airlines, the fluctuations of foreign exchange rates might negatively affect the finance of airlines (Vasigh et al., 2015). For all these reasons, international trade balances are also important for the financial management of airline companies.

In terms of financial ratio analysis, the airline industry might be a good example to show the importance of financial indicators for all multinational companies for two reasons. Firstly, the airline industry is a good example since the sector conducts its businesses in the international arena and secondly, their income sources and cost structures are strictly related to international trade balances. Hence, the airline industry is unthinkable without international trade concepts and the author will identify the financial characteristics of the industry. By doing this, he aims to show that financial ratio analysis is an important concept for airline firms in global markets.

1.6 The Gap

As will be mentioned in the literature review chapter, analysis of financial statements is an essential concept for business organisations. By analysing and assessing their financial figures, decision makers or managers can identify problems and develop effective strategies for their companies. For the airline industry, airline firms are facing cyclical low profitability due to excess capacity and the emergence of LCCs in the last years (Scotti and Volta, 2017). Furthermore, some external issues such as 9/11, global recession and security concerns have also affected the financial performances of airline companies and these challenges have also led to a decrease in overall passenger traffic thus creating liquidity concerns for firms because of the insufficient cash flow. Therefore, it can be said that there are two substantial problems for airline companies in recent years; profitability and liquidity.

Although there are serious financial problems in the airline industry, there is just a small amount of literature that highlights the importance of financial performance and analysis of the companies (Tekere et al., 2016). Moreover, usage of the financial ratio analysis is not frequent except in a few pieces of literature in the airline market (Feng and Wang, 2000). Furthermore, there is not any comprehensive academic study which compares Turkish Airline companies' financial ratios with other companies except for the companies' own annual reports or a few simple business analyses in recent analyses.

Summing up, the gaps in the literature can be identified as "the lack of usage of financial ratios in the Turkish airline industry" except for a few common studies. Moreover, the interpretation, comparison and evaluation of financial ratios in the Turkish airline industry are not studied comprehensively. Hence, this dissertation's main purpose is to fill that gap.

1.7 Research Aim and Objectives

*The main research question of this study is how could financial ratio analysis help Turkish Airline companies to develop better strategies in global markets? On the basis of information given in the previous section, **the main purpose of this study is to fill the gap in the literature which is to use financial ratio analysis technique in the Turkish airline industry and identify the strengths and weakness of companies in that industry.*** In order to accomplish this aim, the following objectives are revealed;

1. Reviewing the existing literature, to develop a conceptual framework of the usage of financial ratios in the airline industry and to choose appropriate financial ratios to analyse financial performances of Turkish airline companies.
2. With the help of primary and secondary data analysis, calculating, to interpret and compare the selected financial ratios of Turkish Airlines and Pegasus Airlines with eight airline firms around the world.
3. To identify the strengths and vulnerabilities of Turkish Airline Companies in the global airline markets and produce some recommendations for the purpose of improving the performance of Pegasus Airlines and Turkish Airlines.

1.8 Dissertation Structure

This dissertation has six different chapters and the structure of the study is shown at the end of this section in Figure 1.2.

Chapter 1 initially presents the background information about the importance of financial analysis in the airline industry. Subsequently, the global airline industry and Turkish airline industry are introduced through two major Turkish Airline companies. Lastly, the literature gap, the research aim and other objectives are explained for the structure of this dissertation.

Chapter 2, the literature review, firstly mentions financial statements which are the main sources of the financial analysis process and then it explains the financial analysis techniques. The next section clarifies the ratio analysis and types of financial ratios which are suitable for analysing the airline industry. Moreover, the benefits and drawbacks of the ratio analysis method will be introduced. Finally, it develops a conceptual framework in order to achieve the first objective of the study.

Chapter 3 demonstrates the research design and it explains the selected research philosophy, strategy and research methodology. Furthermore, data collection & analysis, quality & research ethics and limitations of the study are discussed in this chapter.

Chapter 4 firstly involves the collection and analysis of empirical data and collected data will be analysed and compared with the literature review during the chapter.

Chapter 5 both theoretical and empirical data which are collected from the literature and airline industry and the results of the financial ratio analysis will be discussed in this section. Hence, the third objective is partly completed in this section.

Chapter 6 is the final chapter of the dissertation. It produces some recommendations for Turkish airline companies, demonstrates achievement of the research objectives and gives recommendations for future research by describing the limitations of the study.

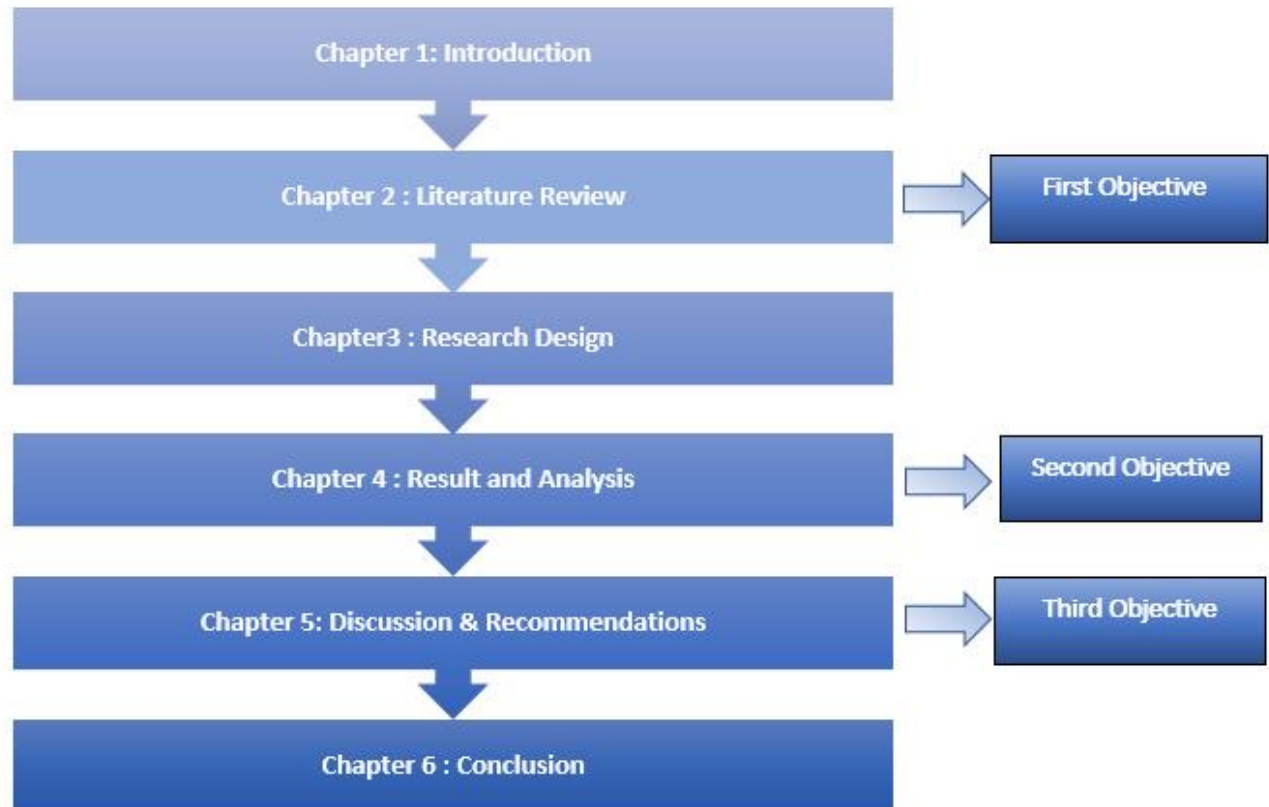


Figure 1.2:Structure of the dissertation project(made by author)

2 Literature Review

The literature review chapter will present the main arguments of the study by clarifying what has been researched in the literature regarding financial statements, financial statement analysis and financial ratios. All the contexts in the literature will be related to the airline industry because of the main research question and sub-research questions.

The aim of this chapter is to provide a conceptual framework in order to achieve the main research purpose which focuses on the interpretation and comparison of financial ratios in the Turkish airline industry. Furthermore, sub-research purposes, which are related to analysing the airline companies' financial performance and financial ratio types, will be discussed in subsequent sections in this chapter by considering the benefits and limitations of the ratio analysis. The relationship between financial ratio analysis and the airline industry will be explained throughout the chapter.

2.1 Introduction

The literature review chapter presents a theoretical framework for the study which is divided into three main sections:

- ❖ A brief description of two financial statements including income statement and balance sheet which are used for financial ratio analysis of airline companies
- ❖ Main features of financial statement analysis and types of financial statement analysis techniques
- ❖ Common types of financial ratios that are suitable for analysis of airline companies, the benefits and limitations of financial ratios for companies

Section 2.2 will firstly introduce the general characteristics of the two financial statements which are the main sources for financial ratios analysis. The features of airline companies' financial statements will be clarified during the explanation of each financial statement.

Section 2.3 will demonstrate popular financial analysis techniques in the business world. The last technique, ratio analysis, will be examined in the subsequent part to accomplish the research purposes more fully.

Section 2.4 will focus on ratio analysis in the airline industry. Common types of financial ratios and industry specific ratios will be explained in this part of the study. Eventually, potential benefits and obstacles of financial ratios will be examined at the end of the literature review chapter.

Section 2.5 will develop a conceptual framework to clarify the main purpose of the study as well as the sub research questions. By doing this, the author will explain the usage of the financial ratios in the airline industry and the structure of the study will be emerged.

2.2 Financial Statements of Airline Companies

While companies are conducting their businesses either in domestic or international markets, decision makers of the company should analyse a company's financial statements to evaluate economic performance and financial stability of the company. They can also reveal substantial changes which might affect the business. However, analysing the financial statements is not a simple process because of the complicated structure of the financial statements.

In order to obtain better results from financial analysis, understanding the meaning of each item throughout financial statements is important for analysts (outsiders) or managers (insiders) (McKenzie, 2010). In terms of the airline industry, financial statements show how the airline company has managed its financial assets & liabilities and what its present financial status is. Furthermore, Vasigh et al. (2015) discuss that managers can figure out a company's past performance, current health and future prospects with the help of financial statements. Since the financial statement is the main source of financial analysis, it is crucial to understand the context of each item on the statements. This chapter will restrict itself by reviewing the common features of statements which are used in the airline industry. Furthermore, cash flow statements will not be examined as they are not the source of financial ratios which are used in this study.

If all financial statements are properly analysed, they can transmit a great deal of information which is about a company's daily operations and the situation of financial management activities (Young, 2013). For better financial analyses, managers should understand the relationship between the income statement, balance sheet and cash flow statement.

2.2.1 Income Statement (Profit or Loss Account)

According to Lewis (2012), income statements looks like a movie and might end happily or sadly at the end of each financial year. A company's income statement explains all the financial activities including revenues of all undertaken activities, the costs of these activities, gross profit, operating expenses, other incomes, interest payments and tax payments. Figure 2.1 shows an example of an income statement. For airline companies, this statement shows how much income has been generated by the airline company and which expenses are associated with that revenue in a specific period. These periods can differ from companies to company but usually, income statements are expressed in annual terms – six months or quarterly terms.

Revenues: The first entry in any income statement illustrates firms' incomes from the sales of products or services during the operating period. This item is only related to the firm's earnings from its core activities. For instance, airline companies earn their revenues from the passengers, cargo and ancillary operations. There are not any exterior sources of income such as interest revenue or profit from aircraft sales in this part (Vasigh et al., 2015).

Cost of Sales: This takes second place on the income statements and can be defined as costs of services or products which are sold out to generate income. It is almost certain that the cost structure of the firms depends on the characteristic of the company. For airline companies, the cost of sales is mainly comprised of fuel expenses and personal expenses. Table 2.1 illustrates Pegasus Airlines' main cost items and their percentages for the year 2016.

Acme Corporation Income Statement For the Year Ended December 31		
(000 omitted)		
	20X9	20X8
Revenues	\$12,500	\$11,800
Less Cost of Goods Sold	8,300	7,800
Gross Margin	4,200	4,000
Less: Selling, General and Admin. Expenses:		
Rent	630	670
Utilities	500	490
Insurance	400	380
Advertising	180	175
Depreciation	150	140
Research and Development	440	400
Operating Income	1,900	1,745
Other Income /Expense		
Interest Expense	620	650
Earnings before Tax	1,280	1,095
Income Tax	377	329
Earnings before Extraordinary Items	903	766
Extraordinary Loss (net of tax)	120	—
Net Income	\$783	\$766
(Dividends paid, \$400)		
Common Stock Price	\$58	\$50

Figure 2.1: A typical example of an income statement (Lewis, 2012)

Expenses By Nature	Percentages
Jet fuel expenses	28,07%
Personnel expenses	16,36%
Operating lease expenses	13,30%
Maintenance expenses	10,27%
Handling and station fees	8,80%
Navigation expenses	7,32%
Depreciation and amortisation expenses	5,76%
Landing expenses	3,56%
Passenger service and catering expenses	1,34%
Other expenses	5,21%
Total	100,00%

Table 2.1: Operating costs of Pegasus Airlines for the year 2016 (adapted by Pegasus Airlines' Consolidated Financial Statements)

According to Fridson and Alvarez (2011), it is possible to make many comments about the financial performance of the companies by looking at the cost structures. For instance, fuel expenses and personal expenses are the largest items in airline companies' income statements (Vasigh et al., 2015) and they represent approximately 35% of airline companies' total expenses. Hence, overall profitability is strictly related to fluctuations in the fuel prices and labour costs.

Gross Profit: It is also described as “Gross Margin” and can be calculated with the following formula.

$$\text{Gross Profit} = \text{Revenues} - \text{Cost of Sales}$$

After the calculation of gross profit, analysts can themselves ask the following question about the companies.

- What are the reasons for increases or decreases in the gross margin with respect to previous years?

It is important to remember that gross profit can provide an insight about a company's financial performance which are grouped together. Nevertheless, it can be meaningless to compare different companies which are not in the same industry (McKenzie, 2010).

Operating Expenses: Apart from the cost of sales, all other costs are defined expenses for companies. McKenzie (2010) points out that there is not any certain rule which classifies expenses for companies. Administrative expenses such as utility and rent costs, marketing expenses including advertising costs or commissions are important operating expense items for airline companies.

Operating Profit: This can also be called Earnings before Interest and taxes (EBIT). This illustrates the amount of money which has been obtained undertaking the activities of the company before the finance costs/income and tax payments. Robinson et al. (2009) discuss that operating profit is an effective measure to evaluate the financial performance of companies. It is calculated using a simple formula;

$$\text{Operating Profit} = \text{Gross Profit} - \text{Operating Expenses}$$

Income and Expenses from Investment Activities: These items are related to some investment gains or losses for airline companies. Revenues or loss from sales of fixed assets can be referred to as this type of activity.

Finance Income and Expense/Other Incomes: This segment comprises different segments including interest payments which come from borrowing transactions, revenues or losses from financial assets in the stock or money markets (McKenzie, 2010). For multinational companies including airlines, foreign exchange gains or losses and other commissions for foreign activities are included in this section. Other incomes are related to a company's business but not a part of its core activities. Rent incomes, sales premiums from suppliers or rediscount incomes are several examples of other incomes.

Tax Income /Expenses: Companies face different types of tax while they are conducting business and these taxes can be incorporated into other costs or expenses on the income statement. For airline companies, there are many types of taxes such as departure and arrival taxes, fuel and gasoline charges, airport taxes and passenger taxes. Apart from the tax payments, overpaid tax payments can be returned as deferred tax income to companies. This item usually arises from the difference between reporting periods.

Net Income: After the deduction of tax payments and other expenses, net income of the company can be calculated. Occasionally, unexpected incidents such as natural disasters, financial shocks or political crises, might affect the overall balance of the net income. In order to show these effects on the income statement, companies can use different solutions, thus extraordinary events (exceptional items) can be added to the income statement as an item which records outcomes of unusual and rare events.

2.2.2 Balance Sheet (The Statement of Financial Position)

During the calculation financial ratios, analysts can also use a balance sheet. According to McKenzie (2010), a balance sheet is prepared to reflect a company's assets and liabilities on a certain day. Lewis (2012) mentions that an income statement, it is prepared at the end of the fiscal year. However, a balance sheet is a financial snapshot on a specific day. In other words, if an income statement looks like a movie, the balance sheet can be called a photograph which reflects all debts and assets at that moment.

There are two main sections of a typical balance sheet. The top part of the statement gives details about the things of value that the company has (assets) and the bottom part provides information about finance of the sources (liabilities) of the company (Walker, 2009). On the balance sheets, accounts are divided into two sections as current and noncurrent accounts according to common features from within the time periods. Short-term periods (current accounts) consist of less than a year's assets or liabilities; on the other hand, a long term period (non-current accounts) involve more than a year's concepts. Figure 2.2 illustrates a typical example of a balance sheet. From the theoretical perspective, Dyson (2010) mentions that a company's assets must all be financed either by borrowings (liabilities) or investments from the owner of the company (shareholders' equity).

Current Assets: In order to continue the operating cycle, companies need cash and different liquid assets which can be easily converted into cash. The main purpose of the holding current assets is being traded. According to Vasigh et al. (2015), current assets are especially critical for airline's creditors since they can easily convert these assets in case of any bankruptcy. The list of current assets is shown as follows:

- Cash and Cash Equivalents
- Short Term Investments
- Accounts Receivable
- Inventory
- Deferred Taxes and Prepaid Expenses

Cash is the first line asset and includes total cash in hand or in the bank accounts. Cash equivalents are financial assets such as money market instruments, government bonds or commercial papers. There is not an ideal cash fund for airline companies but there must be enough cash to carry on daily operations (Vasigh et al., 2015). The second component of the current assets is short-term investment and these are short-lived investments and can be easily converted into cash in case of any cash requirement.

Balance Sheet			
As of December 31			
(000 omitted)			
		20X9	20X8
Assets			
Current Assets:			
Cash		\$521	\$298
Accounts Receivable		1,374	1,280
Inventory		2,236	2,310
Prepaid Items		150	120
Total Current Assets		4,281	4,008
Property, Plant and Equipment			
Buildings, Machinery and Trucks		3,600	3,500
Less Accumulated Depreciation		(1,200)	(1,050)
Net Prop., Plant and Equip.		2,400	2,450
Other Assets			
Long-Term Investments		1,500	1,400
Total Assets		\$8,181	\$7,858
Liabilities and Stockholders' Equity			
Current Liabilities:			
Accounts Payable		\$920	\$950
Wages Payable		850	805
Short-Term Notes Payable		345	320
Total Current Liabilities		2,115	2,075
Long-Term Debt		1,200	1,300
Owners' Equity			
Preferred Stock (\$50 par, 6%, 1,000 sh. issued)		50	50
Common Stock (\$8 par, 250,000 sh. issued)		2,000	2,000
Paid-in Capital in Excess of Par		500	500
Retained Earnings		2,316	1,933
Total Liabilities and Stockholders' Equity		\$8,181	\$7,858

Figure 2.2: A sample Balance Sheet (Lewis,2012)

Trade and debtor receivables are ranked as second line assets and refer to the amount of money owed by firms after selling goods and services delivered to customers. In the airline industry, trade receivables come from credit card payments and travel companies which are allowed to make their payments with 1-2 month's grace (Morrell, 2013). Like other companies, airline companies can face bad debts which are not collectable from customers. Inventory is another item in the current assets and it seems that it is the least liquid item among the current assets. It is very hard to convert inventory into cash very quickly. An airline company's inventory generally consists of aircraft spare parts and other inventory items such as fuel stocks, catering inventories and consumable products. The next item in the current assets is prepaid expenses. If the expenditure is made before the services to be received, these expenditures are called prepaid expenditure. Insurance payments, employee benefits, prepaid advertising and sales payments are shown as examples for prepaid expenses for airline companies.

Non-Current Assets: While companies are doing their business, they can keep some of the assets for more than a year for different purposes such as continuity of operations, capital gains or precautions against any shocks. These assets are not converted easily into cash. Properties, plants, equipment and vehicles are examples of this type of asset. As mentioned previously, the airline industry is a capital-intensive industry and it requires a significant amount of fixed assets to continue operations (Vasigh et al., 2015). Maintenance facilities, station costs and owned aircrafts are the largest fixed (tangible) assets for airline companies. Most of the fixed assets have limited usage and they can depreciate over the years. Hence, depreciation expenses make up one of the largest portions of the airline firm's operating expenses due to owned aircrafts (Vasigh et al., 2015).

Apart from these types of assets, there are also intangible assets in the balance sheet. Landing permissions, slot rights for airports, licenses and emission allowances are several examples of intangible assets for airlines. In a similar way, intangible assets can also depreciate over the years and can be called “amortisation” (Morrell, 2013).

In addition to tangible and intangible assets, long-term investments are other items in the non-current assets. Reducing the business risks, gaining control over the essential materials for production, establishing a joint venture or company are several examples of long term investments. Buying tangible assets as a precaution, making investments in affiliated firms and investing in financial securities can be concurrently added to other long-term purposes for firms (Samonas, 2015).

Current Liabilities: On the vertical format of a balance sheet, liabilities are at the bottom of statements. Like assets, they can be divided into two sections as current and non-current liabilities. Basically, this shows what airline companies owe to other companies within less than one year. Accounts payable are short term obligations and reflect the amount of money which is owed by suppliers or vendors. Accrued expenses, payrolls or compensations are simply explained as occurring services but not paid expenses. In other words, accrual costs are still outstanding payments on the balance sheet. In general, a company's total current assets might exceed its total current liabilities. This difference can be called working capital and refers to using relatively liquid resources to meet financial requirements in an operating cycle (Samonas, 2015).

Non-Current Liabilities: These types of liabilities are usually larger obligations than current liabilities and are forecast to leave more than a year from the balance sheet (McKenzie, 2010). The loan capital, mortgage and leasing payments, deferred income taxes, pension obligations are the most common types of long-term liabilities for companies. If airline companies prefer to purchase their aircrafts through a leasing method, the burden of non-current liabilities would be higher than for other airline companies (Vasigh et al., 2015).

Shareholders Equity and Retained Earnings: Shareholders' equity consists of setting up investments and retained earnings which can be used to make further investments at later stages in the business. The amount of an airline company's equity is equal to the net assets which can be obtained – total assets minus total liabilities. If the assets are not higher than the liabilities, the shareholder's equity would be negative and it is not a positive sign for the future of the company (Morrell, 2013).

2.2.3 Interpretation of Financial Statements

While business organisations are conducting their businesses, decision makers determine a business strategy in order to operate their organisations in the business environment. Accounting numbers on the financial statements can be described as a reflection of selected business strategy. Hence, it is important to analyse and interpret the financial statements for the companies since a proper financial analysis would help to show financial performance of the company in the industry and outcomes of the selected business strategy (Alexander et al., 2014).

According to Wahlen et al. (2011), financial statements analysis consists of three components and those items are required to make analyses properly. Figure 2.3 illustrates the components of financial statement analysis.

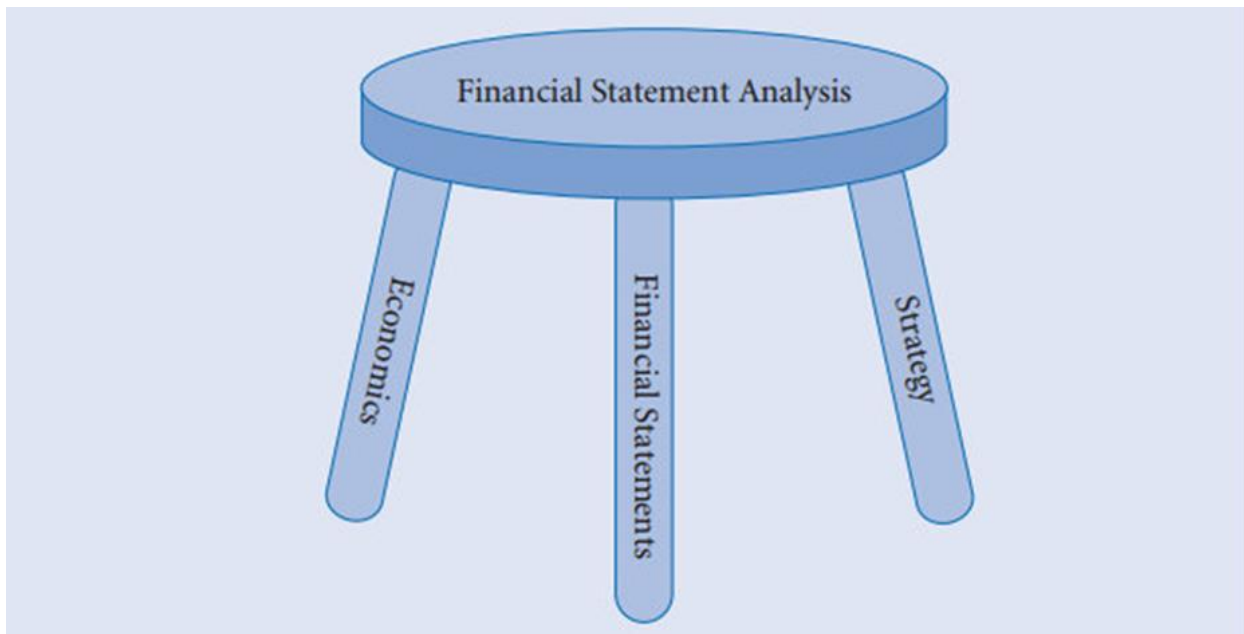


Figure 2.3: The components of financial statement analysis (Wahlen et al., 2011)

The first component is related to identifying financial aspects of the industry where firms engage not possible and it shows the connection between economic features of the industry and financial figures of the company. The second relates to how every firm has different business strategies to provide sustainability of earnings, evaluating the business opportunities and diversifying the business risks. Lastly, including the accounting methods and preferences which are adopted by the companies in advance, might help to evaluate the financial performance of a company comfortably. Summing up, the purpose of the financial statement analysis is combining the financial reports and financial notes and supporting information, comparing the previous and present performance of the company and evaluating the financial position of the company for investments, credits or other strategic decisions (Robinson et al., 2009).

In this part of the study, the author will first clarify the sorts of financial analysis and then ratio analysis will be explained more comprehensively. Types of financial ratios, benefits and obstacles of ratio analysis will also be discussed in the last part.

2.3 Financial Statement Analysis Techniques

As mentioned earlier, financial statements reveal much information about a company's activities. Evaluating the earnings, expenditures, assets and liabilities on the financial statements might be insufficient to understand all points about the firms and their economic performance. Hence, it is required to combine all the information which has been previously collected (Dyson, 2010). For example, while an analyst is examining a financial statement, he realises that the company's revenues are growing but the profit margin is constant. It is not possible to explain all the reasons for this issue by looking at the single financial report. Furthermore, Marsh (2012) points out that it is necessary to examine the relationship between different accounts considering the time factor. After reviewing all the financial reports, financial statement users should ask the following questions in order to start their interpretation.

- ✓ What are the similarities and differences of financial results from the previous years and competitors?
- ✓ How have specific events affected the performance of the company?

On the other hand, Dyson (2010) mentions that every user group can ask different questions which are related to their main concerns. Table 2.2 illustrates the most common questions and their questioners.

User groups	Questions
Customers	How do company's prices compare with its competitors?
Employees	Has it enough money to pay my wages?
Governments and Their Agencies	Can the company pay its taxes and other payments?
Investors	What's the dividend like?
Public	Is the company likely to stay in business?
Lenders	Will I get my interest payments?
Suppliers	Will we get paid what we are owed?

Table 2.2: The most common user questions for financial statements (Adapted from Dyson, 2010)

In order to answer these questions, a lot of financial analysis techniques have been developed by different authors. However, there are four main types of financial analysis techniques including Horizontal Analysis (Trend Analysis), Vertical Analysis (Common-Size Analysis), Cross Sectional Analysis (Relative Analysis) and Ratio Analysis (Gildersleeve, 1999; Alexander et al., 2014).

Despite the many benefits of financial analysis techniques, these analyses methods also have limitations and users must take these limitations into account if they are to fully understand the company's financial situation. The shortcomings of financial statement analyses techniques will be discussed for each method. Additionally, the limitations of financial ratio analysis will be referred to at the end of this chapter.

2.3.1 Horizontal Analysis (Trend Analysis)

In this analysis method, analysts review consecutive financial statements from period to period on individual lines (Gildersleeve, 1999). This is usually based on a year-to-year basis. Analysts can reveal the speed and direction of related items within the specific periods by making a horizontal analysis. Furthermore, managers can also realise unusual changes on the financial reports (Lewis, 2012). For example, a 15% increase in account receivables along with a 5% increase in sales requires attention from managers. After the evaluation of the current year's figures on financial statements, companies need to compare these results with different sorts of benchmarks. By doing this, companies can have a proper judgement about their own performances (Alexander et al., 2014). An example of Horizontal Analysis is shown in Figure 2.4.

	Horizontal analysis (%)				
	2007	2008	2009	2010	2011
Operating revenue	100	121	132	134	162
Operating expenses	100	123	161	147	1781
Fuel and oil costs	100	114	181	129	177
Staff costs	100	126	137	148	166
Depreciation	100	123	178	164	194
Aircraft rentals	100	125	134	164	167
Maintenance, materials and repairs	100	135	159	205	223
Marketing and distribution costs	100	584	638	608	649
Airport and handling charges	100	145	162	168	180
Operating profit – continuing operations	100	114	20	85	103

Figure 2.4: Horizontal Analysis of some balance sheet items for an airline company (Alexander et al., 2014)

According to Subramanyam et al. (2007), this method can also be divided into two types;

- Year to Year Change Analysis: It is useful to compare the financial reports with short-term periods rather than doing a longer period analysis. This has the advantage of presenting both certain amounts of items and their percentages. However, a significant change from negative to positive amounts (or vice versa) in the base year may mislead the percentage change.
- Index-Number Analysis: For long-term comparisons, this analysis method chooses a base year period for all items and they are set to 100. The base period is the reference for all other years and year-to-year percentage changes are calculated on the basis of the base year. Thus, analysts can observe the amount of changes for each year.

Although there are such benefits from trend analysis techniques, analysts should be aware that companies might use different accounting methods such as LIFO, FIFO or depreciation methods and this difference may mislead the analysts during the financial analysis. Another limitation is related to the selection base-year; analysts must be sure the base year is a "normal" year. If there is an exceptional issue in the base year, the comparison of all financial statements will be meaningless (Lewis, 2012). Lastly, the trend analysis is vulnerable considering the price-level alteration during the years. It might create inconsistencies for longer term comparisons (Subramanyam et al., 2007).

2.3.2 Vertical Analysis (Common-Size Analysis)

In this analysis method, total assets or liabilities plus equities are set to 100% and then other accounts are reflected as a percentage of them respectively. Especially, comparing the financial statements with the common-size analysis technique can reveal the structural changes in assets, liabilities, expenses or other items (Subramanyam et al., 2007). However, ignoring the relative sizes of the companies is the main limitation of this technique.

Analysts can also compare items on individual lines such as COGS, revenues or depreciations on the financial statements. It is useful to understand the structure of financial statements. Therefore, it is likely to divide this analysis technique into two types on the basis of financial statement type.

Common Size Analysis of Income Statement: While analysing the income statement, revenues are usually set to 100 % and other items are shown as a percentage of revenues. Robinson et al. (2009) point out that accountants and analysts can observe the percentage of each expense according "to revenues" which is the primary account on the income statement. Table 2.3 reflects common size analysis of an Income Statement.

	2016		2015	
	Amount	Percentage	Amount	Percentage
Sales Revenue	29.468	100,00%	28.752	100,00%
Cost of Sales	-26.051	-88,40%	-22.959	-79,85%
Gross Profit	3.417	11,60%	5.793	20,15%
General Administrative Expenses	-948	-3,22%	-740	-2,57%
Marketing and Sales Expenses	-3.493	-11,85%	-3.129	-10,88%
Other Operating Income	439	1,49%	646	2,25%
Other Operating Expenses	-280	-0,95%	-84	-0,29%
Operating (Loss)/Profit Before Investment Activities	-865	-2,94%	2.486	-8,65%
Income from Investment Activities	420	1,43%	286	0,99%
Expenses from Investment Activities	-59	-0,20%	-3	-0,01%
Share of Investments' (Loss) / Profit	130	0,44%	226	0,79%
Operating (Loss)/Profit	-374	-1,27%	2.995	-10,42%
Financial Income	1.074	3,64%	1.450	5,04%
Financial Expenses	-698	-2,37%	-534	-1,86%
(Loss)/Profit Before Tax	2	0,01%	3.911	13,60%
Current Tax Expense	-65	-0,22%	-34	-0,12%
Deferred Tax Income / (Expense)	16	0,05%	-884	3,07%
(Loss)/ Profit For The Period	-47	-0,16%	2.993	-10,41%

Table 2.4: Turkish Airlines' Common-Size Income Statement Analysis for the years 2015 & 2016(Adapted from Turkish Airlines' financial statements)

- Common Size Analysis of Balance Sheet: This is prepared by dividing each figure into the same period's total assets or total liabilities plus equities. In other words, the increase or decrease in percentage terms for each item on the balance sheet is calculated based on these variables. Analysts can highlight items which are significantly changed from previous years. It can be extended to clarify the accounts by separating the sub groups and thus, while analysts are examining the liquidity of assets, it might be important to find out the percentage of inventory in the current assets. Subramanyam et al. (2007) mention that common size analysis focuses on two aspects including source of finance and structure of assets. Figure 2.5 illustrates the common size analysis of several airline companies' balance sheet.

	<i>IAG</i>	<i>Ryanair</i>	<i>Air France-KLM</i>	<i>Lufthansa</i>
	<i>31 Dec. 2011</i>	<i>31 March 2012</i>	<i>31 Dec. 2011</i>	<i>31 Dec. 2011</i>
Total non-current assets	70.17	56.93	76.54	66.33
Intangible assets	8.72	5.19	4.39	5.61
Tangible assets	48.51	54.71	46.65	51.81
Financial assets	3.38	4.26	8.92	8.49
Pension assets	6.66	–	11.78	–
Total current assets	29.82	43.06	23.46	33.76
Inventory	2.02	0.03	2.14	2.21
Liquid assets	10.00	39.05	8.36	3.16
Other current assets	17.70	1.30	12.96	28.30
Total assets	100.00	100.00	100.00	100.00
Total equity	28.70	36.75	22.31	28.65
Total non-current liabilities	38.16	43.10	44.21	36.52
Provisions and pension liabilities	7.70	1.14	7.54	9.77
Other non-current liabilities	30.46	41.9	36.66	26.75
Total current liabilities	33.05	20.14	33.48	34.84
Total equity and liabilities	100.00	100.00	100.00	100.00

Figure 2.5: IAG, Ryanair, Air France-KLM and Lufthansa's balance sheet analyses based on common size technique (Alexander et al., 2014)

2.3.3 Cross-Sectional Analysis (Relative Analysis)

This compares a specific item for one company with the same item for other companies. Apart from the other analysis techniques, this method enables comparison of companies which are different sizes and are not in the same industry. Furthermore, companies might use different types of currency as well (Robinson et al., 2009).

Alexander et al., (2014) also include another type of analysis method which can be called “segmental analysis”. In this method, segmental analysis shows the segmental breakdowns of each item on the companies' financial statements by separating the different business groups. For the airline industry, every firm can obtain its main revenue from different business segments such as passenger transportation, cargo operations, aircraft maintenance or even catering services. For this reason, comparing the airline companies with the segmental analysis method can provide more detailed results for analysts.

In this study, ratio analysis will be discussed more comprehensively in the next section, in order to understand the research purposes clearly. Furthermore, financial ratio analysis can be seen as the most useful analysis technique due to the benefits to researchers. The benefits and even limitations of ratio analysis will be discussed in the last section of the literature review.

2.4 Financial Ratio Analysis

As noted previously, there are many individual figures on the financial statements and each of them is related to different segments of the company. However, all these numbers are involved in an interaction and analysts should take these interactions into consideration in order to make better judgements about the economic performance and financial health of the company. For this reason, ratios are useful tools to indicate the connection of one item to another item on the financial statements.

Furthermore, it is not only important to calculate the financial ratios, but also analysts should properly interpret ratios and then describe the areas which need more investigation (Subramanyam et al., 2007). During the calculations, numerous factors might also affect the effectiveness of the financial ratios. Hence, analysts must be familiar with how financial ratios are calculated and what the other factors are affecting the ratio calculations. Analysts should be careful about internal and external factors during the calculation and assessment of the ratios (Wahlen et al., 2011). Economic issues, the industrial environment of the company, seasonal conditions and even geographical locations might exogenously affect financial ratios (Horrigan, 1965). On the other hand, internal factors such as accounting principles, monitoring mechanisms, business strategies and organisational structure might affect both the calculation and interpretation of ratios.

In conclusion, it seems that the ratios are not the end point of the analysis process; in contrast, they are the starting point of the financial analysis process. By using the ratios, analysts and accountants can uncover many relations and trends which are very difficult to detect. Moreover, ratio analysis allows for tracking of the direction of profitability, efficiency, gearing and liquidity of the company (Lewis, 2012).

2.4.1 Types of Financial Ratios

There is not any authority which specifies to compute financial ratios or provide a full list of ratios. The number of ratios and their formulas can change from analyst to analyst and it is possible to produce more ratios in addition to existing ratios in the literature. Furthermore, Dyson (2010) mentions that the definitions of ratios could be also different in accordance with databases. For all these reasons, there are hundreds of ratios available and it is crucial to prefer the most suitable ratios during the financial analysis of the companies. (Goel, 2016)

While managers, regulators, investors are benefitting from the financial ratios for decision-making purposes, bankers or lenders can use them lending or not. Therefore, it is better to separate the ratios according to the purpose of the analysis instead of dividing all ratios by names or their resources such as balance sheet or income statement. Eventually, analysts and accountants usually prefer very common types in their analyses. Since, if there are 20 different ratios and the analysis covers 5 companies for 5 years period, there would be 500 different ratios to calculate and incorporate into the analysis. In this study, common financial ratios are divided into four main categories including liquidity, activity, profitability and solvency ratios.

Apart from the common ratios, every industry has its own industry-specific ratios to analyse the performance of the sector deeply. In this study, author will benefit from four airline industry specific ratios including Load factor, Revenue per available seat kilometre (RASK) and cost per available seat kilometre (CASK) and non-fuel CASK to assess the performance of the airlines.

2.4.1.1 Liquidity Ratios

In order to conduct their businesses successfully, companies must fulfil their immediate obligations in the operating cycle. According to Robinson et al. (2009), liquidity ratios simply measure the capability to meet short-term obligations and reflect how assets are converted into cash in the operating cycle. Vasigh et al. (2015) discuss how much liquidity an airline has related to the company's operating cycle.

By doing a liquidity analysis, Young (2013) points out that managers, investors and creditors can find out answers to following questions:

- ❖ How does the company use its current assets? Does it have enough current assets on hand to meet its immediate obligations? Is there any cash sitting idle?
- ❖ How does the firm manage its account receivable? Are collection periods too long, or not?
- ❖ How does the company manage its inventory? Are there too many products in the inventory or does the company have too little inventory? Is the company tying up all its cash in unproductive assets which are lying in the inventory?

There are two common liquidity ratios in the current literature: Current Ratio and Quick Ratio. Apart from these ratios, working capital can help to understand liquidity of the company as well. In order to calculate working capital for companies, current liabilities should be excluded from existing assets. Working capital is necessary to continue a company's cash conversion cycle which describes the process of a company's cash generation from its products and services.

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

Current Ratio

This can be computed using a simple formula;

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

During interpretation, the higher ratios means the safe liquidity position for companies but managers should be aware that having superior ratios can create some problems due to ineffective assets management. On the other hand, lower ratios would be an indicator of less liquidity which negatively affects the ability to meet short term obligations (Brigham and Houston, 2012).

Whether current ratio and quick ratio depend on the company's industry, there is not any magic number for liquidity ratios. However, Drake and Fabozzi (2012) indicate that larger ratios are better indicators for the company to satisfy its current obligations easily. For the airline industry, if the liquidity ratios are higher than 1:1, airline companies can expand their business by adding new routes, establishing a joint venture or purchasing another company with an acquisition (Vasigh et al., 2015).

Quick Ratio (Acid-Test Ratio)

The second liquidity ratio describes the relationship between liquid assets and current liabilities and it is calculated using the following formula:

$$\text{Quick Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

The aim of quick ratios is to eliminate non-liquid assets which are not fully convertible into cash. Liquid assets consist of cash and cash equivalents, short term marketable securities and account receivables. On the other hand, current liabilities consist of accounts payable, trade payables, accrued expenses and short term liabilities. Like other accounts, current liabilities also depend on the business characteristics. Young (2013) mentions that, unless there is a quick ratio above 1.0, the company may face some problems in meeting its current obligations when they come due. The magic 1.0 can be explained by considering how, if the acid ratio is bigger than 1.0, the company can convert its liquid assets as quickly as possible in the case of any exceptional circumstances. However, it is not good to have an excessive amount of liquid assets which indicates ineffectiveness of the investment management of the company (Lewis, 2012). Lower ratios usually reflect that the firm cannot meet short-term obligations and this situation may lead to bankruptcy and insolvency as well.

2.4.1.2 Activity (Efficiency) Ratios

These ratio measure how a company manages the day to day tasks (particularly asset management) such as inventory management and fixed assets (Robinson et al., 2009). These ratios are related to usage of working capital and long term assets as well. If a firm has too much cash on hand, it means that this firm misses chances for investment opportunities. In contrast, if the firm has too little cash, this firm cannot pay its immediate payments in the near future. For this reason, accountants and analysts use two popular activity ratios to measure a company's operational efficiency.

For airline companies, these ratios can deteriorate with depreciation calculation methods. Furthermore, activity ratios can be changeable according to industry characteristics and inventory ratios are more beneficial for manufacturing companies. For the airline sector, which is a highly capital intensive industry, inventory related ratios might not reflect real efficiency for companies. Therefore, Young (2013) suggests that, for a capital intensive industry such as oil refinery and the airline sector, a modified ratio would be more appropriate to show the quality of asset management of airline companies. In this study, two activity ratios could be more suitable to reflect the airline firms' activity level.

Total Asset Turnover

This ratio shows the relationship between total assets and sales revenue. This ratio is a significant help for understanding a company's performance as it demonstrates how much money the company generates in revenue for every £1 of its assets. Therefore, a higher ratio means greater efficiency in terms of asset management (Elliott and Elliott, 2015). The last ratio can be calculated using a simple formula:

$$\text{Total Asset Turnover} = \frac{\text{Sales Revenue}}{\text{Total Assets}}$$

Fixed Asset Turnover

This measures the management of fixed assets by comparing the sales revenue and net fixed assets. Net fixed assets can be calculated by total fixed assets less accumulated depreciation. It varies from industry to industry and both manufacturing and capital intensive companies can benefit from this ratio. By assessing fixed assets ratios, the company can see the relative productivity of its assets compared to sales revenue. This ratio is also helpful to show the depreciation of companies' assets. While fixed assets are depreciating, their productivity would also be low. Hence, the size of this reduction can be calculated with this ratio by comparing firms' past performance or other companies whose assets are relatively newer than the company under consideration (Young, 2013). Higher ratios shows high efficiency in using the fixed assets of the company. This can be computed as shown below:

$$\text{Fixed Asset Turnover} = \frac{\text{Sales Revenue}}{\text{Net Fixed Assets}}$$

2.4.1.3 Profitability Ratios

For every firm, the main purpose of the business is the maximising of its profit. This is related to the company's economic performance and operations which can be viewed with the help of the profitability ratios. These ratios also show the competitive position of the company. Unless the company has a competitive advantage such as better quality, profitability ratios would be significantly lower.

For airline companies, the profitability ratios have been very substantial in recent years. As mentioned in the introduction section, airline companies are facing low profitability due to excessive capacity growth and for many other reasons (Scotti and Volta, 2017). In this study, Ratio Profit Margin and Return on Equity (ROE) ratios are examined during the financial analysis regarding the examination of profitability in the Turkish Airline industry.

Net Profit Margin

After excluding all costs, expenses, tax and interest payments, net income provides a better view of a company's future profitability (Young, 2013). If these costs and expenses are factored into a calculation, those items cannot show the accurate profitability of the companies. This ratio measures how much of each dollar in sales revenue received by the company becomes net income. Goel (2016) mentions that companies which have a higher net profit margin ratio are capable of converting sales revenue into actual profit. Profit margins depend on the companies' industry as well. For a highly capital intensive industry, such as the airline industry, a higher ratio is better because of the financing role and it shows that the company can convert its sales into profits using its assets very effectively. By having higher ratios, these companies can purchase new equipment, expand their facilities or finance large fixed assets which require large amounts of financing (Young, 2013).

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Sales Revenue}} \times 100$$

Return on Equity(ROE)

This ratio helps analysts to understand how the airline's management is handling the capital which is invested by the owners of the company or shareholders. By comparing the percentage change in the ratio over the years, analysts can find out the company's revenue trend such as remaining constant, increasing or decreasing. It also enables comparison of the revenues of investors with alternative investment funds such as treasury bonds or saving certificates. A higher ratio means that the company can manage to convert shareholders equity into profit. During the calculation of ROE, net income means excluding all the expenses, costs, tax and interest payments from sales revenue. The formula for return on equity is:

$$\text{ROE} = \frac{\text{Net income}}{\text{shareholder's Equity}} \times 100$$

2.4.1.4 Solvency Ratios

These ratios are related to measuring the capability of a firm to meet long-term debt obligations such as leases and loans. Solvency and liquidity ratios can be called inverse ratios in practice. Analysts examine solvency and capital structure of the company in order to assess its long-term financial health. Furthermore, solvency shows how a company funds its operations through a combination of equity and debts. Solvency ratios are involved in the financial leverage ratios in some sources such as Subramanyam et al. (2007), Lewis (2012), and Drake and Fabozzi (2012). There are two common types of ratio including Debt to Assets Ratio and Debt to Equity Ratio.

Debt to Assets Ratio

The first solvency ratio describes how much a firm's assets are covered through long-term debts rather than equity. A higher ratio indicates that the company has a lot of debt regarding its assets and thus, principal and interest payments take a substantial amount of money from the company's cash flow. It also shows the company's risk level against the potential risks. Lower debt ratio means lower risks for investors (Rist and Pizzica, 2015). It can be said that all liabilities do not have equal risks and thus, this ratio does not represent a meaningful outcome solely. It should be compared to other companies, previous ratios of the company or industry averages. It is calculated using a simple formula:

$$\text{Debt to Assets Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

Debt to Equity Ratio (Gearing)

This is also called gearing ratio. This ratio shows the comparison of a company's all liabilities and its equity. It is important to realise the concept of "net borrowings" in order to clearly evaluate the level of a company's dependence on borrowed funds. Hence, Net borrowings can be calculated as:

$$\text{Net Borrowings} = \text{Medium/ Long Term Liabilities} + \text{Short Term Liabilities} - \text{Cash and Cash Equivalents}$$

A higher ratio means that the company is financing its growth by borrowing money and in the case of a rise in the interest rate or other financial shocks, it would create some setbacks for the company. On the other hand, lower debt-equity ratio shows that company allocates its equities for growth and does not take advantage to lower borrowing facilities. Investors and creditors might prefer lower debt-equity ratios due to precautions against business risks. As with the ratios discussed above, this ratio can be deteriorated with the using operating leases by airline companies. (Morrell, 2013)

$$\text{Debt to Equity Ratio} = \frac{\text{Net Borrowings}}{\text{Equity}}$$

2.4.1.5 Airline Industry Specific Ratios

Apart from the common ratios, the author also utilises airline industry specific ratios which have only been developed to evaluate airline companies' financial performance. By using these ratios, especially the cost and revenue structure of airline firms can be analysed more comfortably and a profitability analysis of the companies can be made.

Before the description of airline financial ratios, there are two important variables that can be used to calculate airline specific financial ratios.

- ❖ Available Seats Kilometre (ASK): In some sources, miles can be used instead of kilometres. This ratio is a basic measure to show an airline's performance regarding the available seats and the number of kilometres that the airline has flown. It can be calculated using the following formula:

$$\text{ASK} = \text{Number of Seats per Aircraft} \times \text{Flight Distance in Kilometres}$$

- ❖ Revenue Passenger Kilometre (RPK): In contrast to the ASK, this ratio only considers seats occupied by revenue passengers. Average number RPK has been growing over the world in the last 40 years and the average growth rate was 6.3 % in 2016 (IATA, 2017).

$$\text{RPK} = \text{Number of revenue passengers} \times \text{Flight distance in Kilometres}$$

These ratios provide standardisation of airline's output for specific periods. However, it can be said that there is not complete standardisation due to the different operating structure of airline firms. Aircraft frequency and flight distances are factors which can affect airlines' output. In this study, all these values have been taken from companies' annual reports.

Load Factor

The first ratio can be used in order to evaluate the proportion of an airline's seats which are occupied by passengers. In other words, it measures the capacity usage of airline firms by assessing how the company fills the available seats and generates revenue. The formula for load factor is:

$$\text{Load Factor} = \frac{\text{Revenue Passenger Kilometre (RPK)}}{\text{Available Seats Kilometre (ASK)}}$$

If the airline's load factor is higher, analysts can understand that the company is better matching its capacity to customer demands. Hence, the higher load factor is a good for the efficiency of airline operations. Increasing trend of load factor is an indicator for a profitable environment in future. On the other hand, Vasigh et al., (2015) state that it is not adequate to illustrate the whole picture for operations since cost factor also affects the efficiency and profitability of airline companies. For this reason, revenue per available seat kilometre (RASK) and cost per available seat kilometre (CASK) are two complementary ratios which do not only show the efficiency but they also reflect the profitability of the airline companies.

RASK, CASK and Non-Fuel CASK

Analysts and managers can assess the overall efficiency and profitability of the airline companies with the help these two ratios (Vasigh et al., 2015). These ratios provide a standardisation across passenger airlines. It is important to remember that these ratios do not work for freight airlines.

- ❖ Revenue per available seat kilometre (RASK): This measures the passenger revenue which comes from one available seat in a kilometre. In other words, RASK shows how much revenue the airline company is generating for each seat in capacity. It can be calculated as:

$$RASK = \frac{\text{Total Passenger Revenue}}{\text{Available Seats Kilometre (ASK)}}$$

- ❖ Cost per available seat kilometre (CASK): In a similar way, CASK describes the costs of airlines in terms of the available seats kilometre. It is a common ratio which is used to compare airlines' cost efficiency. It can be said that lower ratios indicate higher efficiency and a more profitable airline company. The formula for CASK is:

$$CASK = \frac{\text{Total Expenses}}{\text{Available Seats Kilometre (ASK)}}$$

- ❖ Non-Fuel Cost per available seat kilometre (Non-Fuel CASK): As mentioned above, CASK is a useful to analyse the cost structure of airline companies. However, fuel costs comprise the main item of cost for airline companies and it can be said that fuel costs are not controllable by the companies. Therefore, the non-fuel cask ratio will specify the cost analysis for airline companies.

$$\text{Non-Fuel CASK} = \frac{\text{Total Expenses} - \text{Fuel Expenses}}{\text{Available Seats Kilometre (ASK)}}$$

2.4.2 Benefits and Usage of the Financial Ratios in Financial Statement Analysis

Ratio Analysis can provide much useful information about a company's financial health and economic performance. Brigham and Houston (2012) highlight that financial ratio analysis is especially important for managers who can use ratio analysis to evaluate their companies' performances and furthermore, credit & stock analysts frequently benefit from financial ratios since they are interested in a company's efficiency, risks and prospects. According to CICA (1993), Robinson et al., (2009) Faello (2015), Goel (2015) carrying out a financial ratios analysis can provide the following benefits on the basis of users for financial statement purposes:

- ❖ Instead of reading whole financial statements, users can interpret a company's financial status by looking at financial ratios which are meaningful figures over the years.
- ❖ Ratios can help to understand financial statements by identifying the substantial points on these statements. Hence, they are important for evaluating the financial position of companies during the decision-making process.
- ❖ Ratios can be useful for understanding a company's strengths and weaknesses by comparing the internal norms such as previous financial figures and external factors including other companies' ratios and industry averages. This benefit brings many advantages for companies, especially in global markets.
- ❖ By carrying out financial ratios analysis, analysts can evaluate the former economic performance of the company and interpret the ongoing financial position. Users can also judge a company's efficiency regarding its management and operations.
- ❖ Ratio analysis can not only provide valuable information for users at the current time but also ensure guidance on future performance for companies. Moreover, ratios can be used as initial indicators to reveal potential problems which need to be investigated more comprehensively.
- ❖ Making trend and ratio analyses simultaneously can uncover a company's financial performance over the years. Furthermore, they enable comparison of a firm's performance with other companies in the industry.

2.4.3 Limitation of Financial Ratios

Besides the various benefits of financial ratio analysis, users should be aware of the potential drawbacks of them during the calculation and interpretation of ratios. Several potential disadvantages of using ratio analysis are listed below:

- ❖ Ratio analysis is more beneficial for narrowly focused companies as opposed to multi divisional companies since it is hard to develop a meaningful set of ratios in various industries at the same time (Gâdoiu, 2014).
- ❖ Financial ratios are not adequate for focusing on qualitative issues of firms such as customer satisfaction, service or product quality. These issues are also substantial for the financial performance of the company (Samonas, 2015).
- ❖ Some seasonal conditions might also affect financial ratios. Analysts should take these into account (Horrigan, 1965). Unpredictable weather conditions or political crises can be shown as examples of these factors.
- ❖ Companies can make small deteriorations in order to improve their financial results. Inventory valuation, depreciation methods and leasing transactions might be used to mislead the users. For example, using leasing methods for productive assets not only does not shows relatively high fixed assets, but it does not also appear as a liability on the balance sheet (Brigham and Houston, 2008).
- ❖ Different accounting rules and applications can distort the accuracy of ratio analysis. Inventory valuation and depreciation methods can be variable between different countries (Robinson et al., 2009).
- ❖ Analysts must study reliable reports while computing the ratios. A company's internal accounting figures would be less reliable than independent audit reports (Subramanyam et al., 2007).
- ❖ There are many definitions of the same ratios in the terminology and analysts must be sure that the ratios have the same meaning. Moreover, they must select the most relevant ratios among the hundreds of ratios (Wahlen et al., 2011).
- ❖ The ratios should be compared to other benchmarks such as previous ratios of the company, pre-determined standards and other firms' ratios in the same market. Furthermore, there are two components of ratio: nominator and denominator. If there is a problem in misstating either one of them, all calculations would be in error (Gâdoiu 2014).
- ❖ It is important that compared results belong to normal years. For instance, if the company suffers a natural disaster in the home country, its financial figures would deteriorate at the end of the fiscal year. Therefore, analysts should exclude these results in order to prevent misleading (Lewis, 2012).
- ❖ Analysts should be aware of asset preferences of the companies. Leased equipment may negatively affect the financial results in two ways. Firstly, they do not appear on the balance sheet and turnover would be lower as well. Secondly, they improve the capital structure of the company (Goel, 2015).

2.5 Conceptual Framework

The main purpose of the project is to explain the usage of the financial ratios in the airline industry. Hence, the main research question is related to understanding how financial ratios could help to evaluate Turkish Airline companies' financial performance in global markets. In order to answer this main question, there are sub research questions as well. In this study, the first sub research question is to develop a conceptual framework which shows the usage of the financial ratios in the airline industry.

While financial analysts select the most suitable financial figures for ratio analysis, it is important to know the context of each financial statement in annual reports and thus, the interpretation and assessment of the ratios would be more meaningful to show companies' financial health and economic performance. A brief description of each financial statement was given in Section 2.2 and this helped to select appropriate financial accounts for ratio analysis.

Besides the ratio analysis, there are also different types of financial analysis techniques and Section 2.3 clarified these analysis methods with their pros and cons. After the selection of the financial figures which reflect the general situation of an organisation, analysts or other users should make comparisons between different firms through the years with the help of financial ratios. By doing so, companies can realise what they must do well in order to succeed or vice versa. In order to achieve this sub-purpose, Section 2.4 reflected which ratios are helpful to analyse airline companies' financial statements. The potential benefits and shortcomings of ratios are also discussed in this section.

There are hundreds of different ratios in the literature and it is essential to choose suitable ratios for the airline industry. In this study, 14 ratios are selected for the interpretation of financial performance of airline firms. These ratios can be divided into two sections. Firstly, 10 ratios can be described as "common" ratios which are used to measure all companies' performances. Common ratios can reflect different perspectives such as liquidity, activity, profitability and solvency ratios. Secondly, the last four ratios are only related to the airline industry and these ratios can solely be used for airline companies as opposed to all companies. It is expected that airline specific ratios can reveal the revenue and cost effectiveness of the airline industry. Like other financial analysis methods, there are also benefits and disadvantages of financial ratios during the analysis process.

Summing up, the conceptual framework is created by going through from the general to specific financial analysis perspective for airline companies. Hence, the author selected the relevant and most appropriate ratios for Turkish airline firms and thus, the first purpose of the project has been achieved in this section. Figure 2.6 illustrates the proposed conceptual framework for this study.

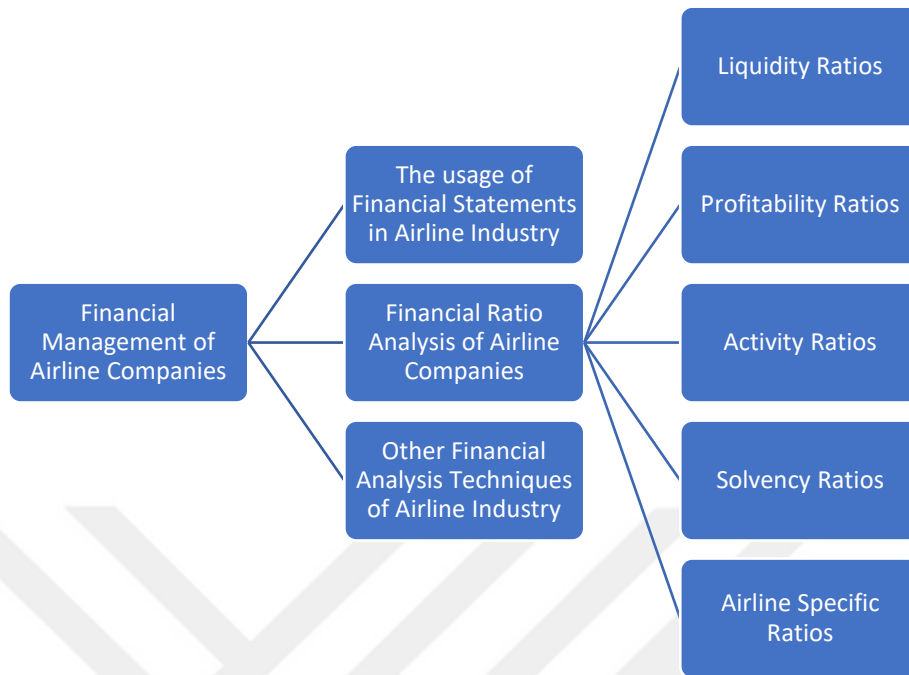


Figure 2.6: The Conceptual Framework of the Study (Made By Author)

2.6 Conclusion

With the help of this conceptual framework, the subsequent two sections will calculate, compare and interpret the selected airlines' financial ratios between 2010 and 2016. Each ratio could help to identify different perspectives for airline companies. It is expected that, by looking these ratios, analysts or managers can understand the financial status of their companies and develop better strategies in the global markets, and the other two research purposes will be accomplished in next sections. Following section will present the research methodology aspect of the study which explains how the study was managed in terms of the research philosophy, data collection and data analysis.

3 Research Design

This chapter clarifies how the research was conducted for this dissertation. The selection of philosophy, data collection techniques and research analysis methods along with the limitation of these methods will be subsequently explained in this chapter. The main purpose of this chapter is explaining how this study was conducted by clarifying the research techniques which are selected to achieve the other purposes of this dissertation. The methodology chapter presents the research process which consists of data collection and analysis of this data (Collis and Hussey, 2014). Furthermore, it includes the ethics and limitations of this study together with the validity and reliability of the research. As a result, the chapter helps in a comparison of the literature review and practical context of the airline industry.

3.1 Introduction and Research Purposes

The main research aim of this project is explaining the usage of the financial ratios in the airline industry and making further suggestions Turkish airline companies to evaluate financial performance in global markets. In order to accomplish the main objective, there are also three sub-research purposes which could contribute to achieve the main purpose of this project.

This thesis has three objective titles as introduced;

- ✓ *From the current literature, to develop a conceptual framework which is about the usage of financial ratios in the business world and to select appropriate financial ratios which can be used in the airline industry.*
- ✓ *The interpretation of Turkish Airline firms financial performance by using financial ratios and to compare the results with other global airline companies.*
- ✓ *Identify the strengths and weakness Turkish Airline companies and produce some recommendations for these companies.*

The first objective set has been accomplished in the former chapter. In order to meet other two objectives, the study requires primary and secondary set of data which are collected Turkish Airlines and several global airline companies. After the usage literature review and collection of related data, there would be an application them to the analysis the results.

The researcher's philosophical position and his approach will be mentioned in section 3.2 and respectively section 3.3 will cover the adopted research strategy. Data collection and analysis, quality and ethics of this research will be explained in the following section. Finally, there will be a limitation part of the research and conclusion part in the last chapter. Figure 3.1 shows the main stages of the research design chapter.

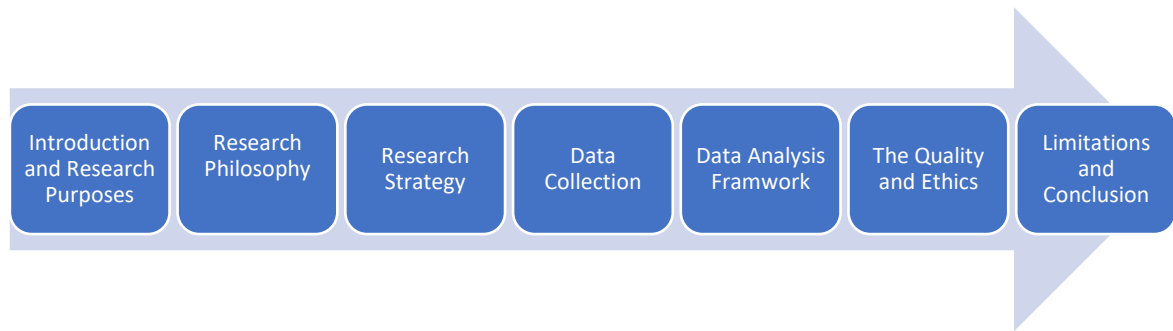


Figure 3.1: The Structure of Research Design Chapter (Made by Author)

3.2 Research Philosophy

A research philosophy can be accepted as an initial point of research and Saunders et al. (2016) mention that the research approach, methodological choice, research strategy, data collection and analysis are based on research philosophy which was adopted by the researcher at the beginning of the project (see Figure 3.2).

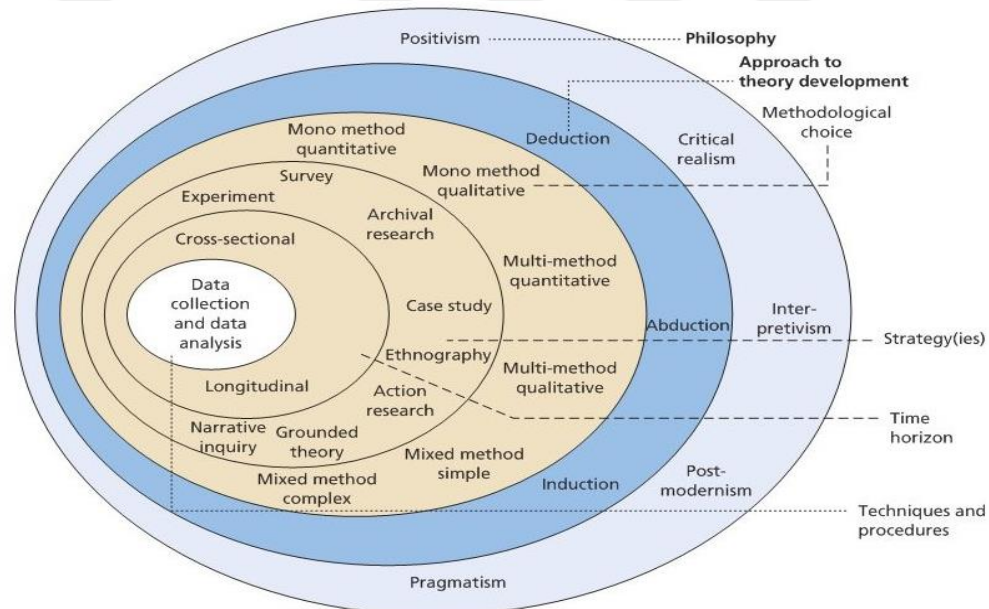


Figure 3.2: The Research Onion (Saunders et al., 2016)

There are different opinions around the world and every person can have different points of view about reality, knowledge and existence. In their work, Burrell and Morgan (1992) discuss how researchers can make numerous types of different assumptions and each assumption can contribute to establishing a reasonable research philosophy which might affect research strategies, data collection and analyses methods simultaneously. Furthermore, while researchers are studying a specific subject, individual perspectives, beliefs and assumptions can also affect the interpretation of knowledge (Saunders et al., 2016). In essence, it can be said that the purpose of research philosophy is formulating personal beliefs, assumptions and reflecting the important assumptions which serve as a core part of the research.

There are a number of philosophies which are varied depending on the different authors. Firstly, according to Saunders et al. (2016), a philosophy involves beliefs and assumptions which are related to knowledge development. It seems that every search has a philosophy which is not changeable according to the subject or position of the study.

However, researchers should be aware of their positions as well as the other philosophies since they can contribute to the value of research and develop the abilities of researchers (Easterby-Smith et al., 2015). Furthermore, it is not feasible to ask which philosophy is better than others. Alternatively, every philosophy meets different types of objectives (Saunders et al., 2016). Table 3.1 illustrates primary philosophies which are differentiated by different resources.

Authors	Major Philosophies
Saunders et al. (2016)	•Positivism •Interpretivism •Critical Realism •Postmodernism •Pragmatism
Bryman and Bell (2015)	•Positivism •Interpretivism •Realism (Epistemological) •Objectivism •Postmodernism(Ontological)
Harreveld et al. (2016)	•Positivism •Postpositivism •Interpretivism •Critical Inquiry •Feminism •Postmodernism
Eriksson and Kovalainen (2008)	•Positivism •Postpositivism•Critical Realism •Interpretivism •Constructionism • Hermeneutics •Postmodernism •Poststructuralism

Table 3.1: Categorisation of Philosophies by Varied Authors (Made by Author)

In terms of business practices, management and business concepts emerged as academic disciplines in the last century. These concepts are constituted all other disciplines such as humanities, natural sciences and social sciences. For this reason, management and business concepts incorporated every kind of philosophy, paradigm and research methodology (Saunders et al., 2016).

There are two main philosophies: positivism and interpretivism, which are completely different from each other and they can help to define an author's position in the study. Positivism is an epistemological consideration which suggests that applications of natural science should entail a study of social reality (Bryman and Bell, 2015). According to the positivist approach, the real phenomenon does not depend on the observer's position and it is not changeable during the study (Easterby-Smith et al., 2015). Moreover, it can be related to quantitative studies rather than qualitative studies. Social scientists criticise this philosophy since events are not observable unless their social situation is taken into account (Collis and Hussey, 2014).

On the other hand, interpretivism, which is purely opposite to positivism, compromises different clarifications of the same events as people can make interpretations according to their own perspectives (Saunders et al., 2016). Different cultures, times and conditions can affect people's thought and, for this reason, interpretivism has a subjectivist approach. It can be said that the positions of other philosophies are located between these two opposite philosophies of positivism and interpretivism.

In this study, the author's position cannot be identified as purely positivist or interpretive. As mentioned above, business and management perspectives may include different sorts of philosophies. Hence, critical realism is the more appropriate philosophy for this project. On the basis of the realist aspect, researchers should benefit from social issues to understand the real world. Furthermore, it usually focuses on reasons and conclusions about the issues.

Positivism			
Real, external, independent	Scientific method	Value-free research	Typically deductive, highly structured, large samples, measurement, typically quantitative methods of analysis, but a range of data can be analysed
One true reality (universalism)	Observable and measurable facts	Researcher is detached, neutral and independent of what is researched	
Granular (things)	Law-like generalisations	Researcher maintains objective stance	
Ordered	Numbers		
	Causal explanation and prediction as contribution		
Critical realism			
Stratified/layered (the empirical, the actual and the real)	Epistemological relativism	Value-laden research	Retroductive, in-depth historically situated analysis of pre-existing structures and emerging agency. Range of methods and data types to fit subject matter
External, independent	Knowledge historically situated and transient	Researcher acknowledges bias by world views, cultural experience and upbringing	
Intransient	Facts are social constructions	Researcher tries to minimise bias and errors	
Objective structures	Historical causal explanation as contribution	Researcher is as objective as possible	
Causal mechanisms			
Interpretivism			
Complex, rich	Theories and concepts too simplistic	Value-bound research	Typically inductive. Small samples, in-depth investigations, qualitative methods of analysis, but a range of data can be interpreted
Socially constructed through culture and language	Focus on narratives, stories, perceptions and interpretations	Researchers are part of what is researched, subjective	
Multiple meanings, interpretations, realities	New understandings and worldviews as contribution	Researcher interpretations key to contribution	
Flux of processes, experiences, practices		Researcher reflexive	

Figure 3.3: The basic features of three different philosophies (Adapted from Saunders et al., 2016)

As a result, for this study, the path of research is shown on the research onion in figure 3.4. to identify main elements of the research and develop a reasonable research strategy. Furthermore, this project is concerned with interpretation and comparison of financial ratios in the airline industry. It is obvious that there is not the best way of conducting it. The study is generally objective, however, social situations may affect the conclusion of the research.

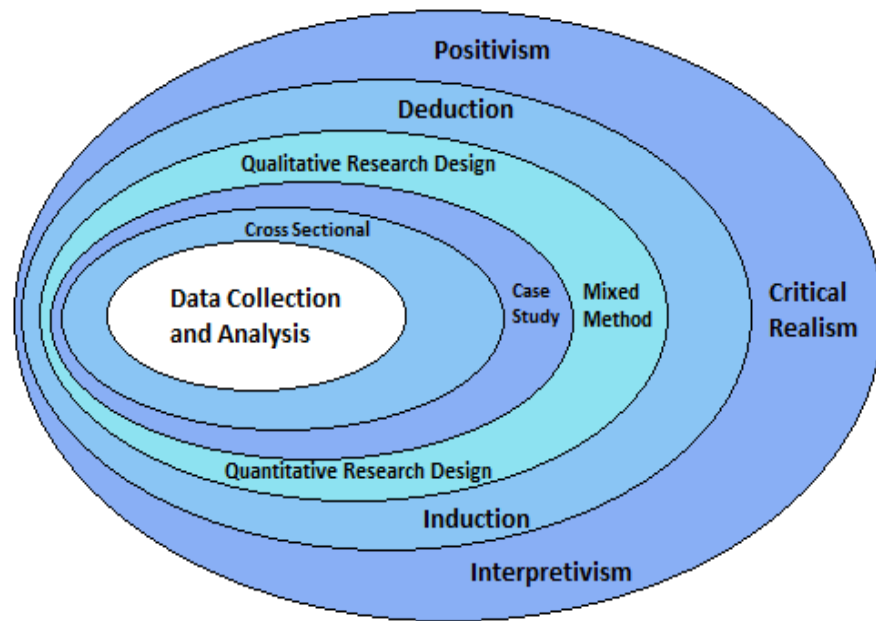


Figure 3.4: The path of this research on the basis of the 'Onion' (adapted from Saunders et al., 2016)

3.2.1 Research Approach

Another important topic is the research approaches and there are two basic approaches which are called deduction and induction in the current research literature (Eriksson and Kovalainen, 2008). In addition to these two approaches, abduction can be used as another method by researchers. It is defined as an intermediate form of deduction and induction and focuses on a "surprising fact" in terms of observations and then develops into a believable theory (Saunders et al., 2016).

For inductive research, firstly researchers start to collect the related data and they develop a theory by testing the collected data. Finally, the theory is tested with the help of empirical studies. In contrast, deductive methods prefer to develop a theory at the initial stage and, as the data collection process data starts, researchers test the theory at the end of the collection of data (Saunders et al., 2016).

In this study, the author used deductive and inductive approaches together. Firstly, a deductive approach was used in order to meet Research Objectives 1 and 3 by developing a conceptual framework of the study in the literature review part. After that, this framework was justified and clarified with the aid of empirical data. Secondly, the author preferred to use an inductive approach to achieve the second objective which needs empirical data collection and analysis for interpretation and comparison of the financial ratios of airline companies.

3.3 Research Strategies

It can be defined as the method which is used to implement the research. Saunders et al. (2016) mention that there are nine different research strategies including case study, ethnography, action research, grounded theory, experiment, survey, archival or documentary research, and narrative inquiry. They also highlight that research strategy can help to answer research questions and objectives easily. Furthermore, selected research strategy should be related the research philosophy which was which was adopted before by the researcher.

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In this dissertation project, the author selected “case study” as the research strategy. However, it is important to explain why other methods are less appropriate for this research project and where others could have been used. First of all, ethnography is related to the study of people and cultures. Moreover documentary and archival research is concerned with retrieving data from archives or documentary sources. For this study, these two methods are not suitable for collecting both primary and secondary data and thus, they are not preferred as a research strategy for this study.

A survey technique needs a high number of participants to reveal the results of the research. However, it is not applicable due to the limited number of participants and decision makers in the airline industry. Moreover, researchers draw conclusions about the projects with the help of quantitative analysis in the survey method (Dul & Hak, 2008). Therefore, this is not valid for this project as primary data collection is based on the qualitative process and it depends on the interpretations of the researcher as well (Collis & Hussey, 2014). Experimental strategy which tests a hypothesis through an experiment is eliminated as the research questions have been developed to inquire into the connection between variables instead of testing anticipated relationships (Saunders et al., 2016). For all these reasons, neither survey nor experimental research techniques are applicable in this study.

Grounded theory can be used to develop theoretical explanations of social interactions in business and management contexts (Saunders et al., 2016). Consumer satisfaction and employee behaviour can be examined by using grounded theory. In this method, the objectives are not determined at the beginning of the study. Therefore, the objectives of this study have been developed in advance and there are not any social interactions in the research context. Narrative inquiry seems to be a story telling process and the researcher aims to collect missing points of the story by conducting interviews thus, the story can be completed (Saunders et al., 2016). For the current study, the purpose of the researcher precluded this method.

Apart from case study, an action research technique could be adopted as a research strategy for this study. However, the aim of action research is to develop organisational learning and the researcher contributes to the outcome of the study in advance (Saunders et al., 2016). In the current study, the author does not affect the outcomes of the research and thus, action research has not been preferred and case study is adopted as a research strategy in this dissertation project.

There are two common reasons why case study is a suitable research strategy for this study. Firstly, the target and objectives for this project match the features of the case study research. Secondly, it is the most appropriate method among all other strategies.

Almost all authors cite Yin's (2014) definition of case study "A case study, is an empirical inquiry that investigates a contemporary within its real-life context, especially when the boundaries between object of study and context are not clearly evident". According to this definition, a case study with regard to a theoretical phenomenon and there is an identical circumstance in the practical life. Furthermore, there is not any clear boundary between the theoretical context and real life context. Finally, a case study is applicable for a small number of participants.

Therefore, in this dissertation, the airline industry is a very complicated sector which is not an easily comprehensible topic. Moreover, researchers generally interpret the financial ratios of real business organisations, thus there is not any certain limit between the interpretation of financial ratios and business organisations' financial performance. Lastly, it is not possible to interpret all the airline firms' financial ratios. Hence, a single case study can be as a good sample for the airline industry.

Beyond all these comparisons, Yin (2014) points out that "How" and "Why" questions are suitable ways to be able to understand the best strategy for the research. At some points "What" questions may be added to these questions. He also mentions that these types of question motivate the researchers in case studies, histories and experiments. Regarding the business context, it is not possible to prefer historic studies or experiments as they do not allow the use of interviews or surveys. Consequently, Saunders et al. (2016) discuss that case studies are very good when seeking answers to "why" and "how" questions".

Yin (2014) criticises how case studies have two substantial drawbacks:

- 1) A case study does not involve systematic procedures.
- 2) It is not feasible to make a generalisation with a case study.

On the other hand, if the case is selected correctly, it is possible to generalise the conclusions of the study. This approach is called analytical generalising by Dubois and Araujo (2007). In this study, interviews will be enable generalisations to be made by interpreting the financial results of Pegasus Airlines.

A case study can also be considered a "snapshot" of certain time intervals and another concept is related to time horizons in research studies. The author can interpret financial statements which belong to a limited time period. In this study, the financial ratios are limited within a time period and the interviews will be performed in the same week. For this reason, this study can be called as "cross-sectional time horizon" which is independent from the change of time. For all of these reasons, it is suitable to select "case study" as the research strategy for this dissertation. After the selection of the appropriate strategy, the subsequent step is the collection and analysis of data.

3.4 Data Collection

In order to give clarity and to illustrate the validity of the research, the data collection process is a crucial concept for this project. In this study, primary data is collected from airline companies by conducting interviews. Furthermore, secondary data, which is related to the financial ratios of airline companies is collected from the annual reports of airlines. In terms of both the data collection, the most restricting aspect is the time factor which is very limited.

There are ten different airline companies in the Turkish airline industry and this study only focuses on two major companies in the airline industry. Apart from these companies, it is almost impossible to obtain financial information from other companies because of confidentiality. Furthermore, there are hundreds of financial ratios in financial analysis of companies and collecting, calculating and interpreting all the data from airline companies might take a very long time. For all these reasons, this study will focus on relatively new financial reports which are limited to the last seven years and the study only relates to the Turkish airline industry. There are eight different airline companies to compare in the context of the financial ratios of Turkish companies. These companies are selected on the basis of several factors such as geographical location, number of aircraft, data availability and business structures.

As has been mentioned previously, primary data from the study will be collected from interviews. According to Yin (2014), interviews provide an opportunity for researchers to analyse the issues directly. It seems that interviews are the most suitable type of method for qualitative data collection. However, it is possible that interviewees may prejudge, while they are answering the interview questions. In order to prevent prejudgements in the interview questions, the researcher should be aware that interview questions should not ask individual opinions of interviewees other than investigating the decisions which affect the business.

Thus far, previous studies have divided interviews on the basis of their structure and formality (Saunders et al., 2016; Eriksson and Kovalainen, 2008; Hair et al., 2016).

- Structured Interviews
- Guided (Semi-Structured) Interviews
- In-depth (Unstructured) Interviews

Firstly, a structured interview is preferred for quantitative data collections since this interview includes pre-coded answers and limits the borders of answers. Hence, a structured interview might prevent explanation to the researchers. On the other hand, unstructured interviews can be defined as more informal and their scope is suitable for analysing general topics rather than specific issues (Saunders et al., 2016).

For this reason, semi-structured interview is selected as the interview method for primary data collection in this study. This sort of interview involves researchers having prepared questions that allow the interviewees to analyse more relevant aspects and enlarge the boundaries of topics which are not raised by interviewers (Yin, 2014). Collis and Hussey (2014) suggest that a form of a pilot interview should be conducted before the actual interviews. Hence, any errors or ambiguous elements are identified and corrected in the interview questions.

Three interviews were conducted in total and all of the interviews were conducted via e-mails because of the availability of the participants. In order to prevent ambiguity errors in the interview questions, a pilot interview was conducted before the real interviews. Moreover, the language could be a problem in terms of understanding the questionnaire. Hence, all questions have been translated into Turkish and interviewees answered all questions in Turkish.

In this study, despite the three planned interviews with the manager of Turkish Airlines, only one interview was conducted with Pegasus Airlines' vice president via e-mail because of the availability of the interviewee. During the interview, questions were asked in order to understand the importance of financial ratio analysis for Turkish airline companies. Furthermore, the usage, benefits and obstacles of financial ratios and financial ratio types together with the company's strategy were considered. As mentioned before, semi-structured interviews were conducted to take more detailed answers from interviews.

When conducting interviews, it was a valuable opportunity to increase the overall quality of the study with the help of the triangulation approach. This approach brings together different perspectives by using different sources. Hence, bias is not only minimised, but the validity of research is also established (Yin, 2014; Groza and Ragland, 2016). In this current study, companies' financial reports have been used as a secondary data source to provide a triangulation approach. They were combined with interview data and all of them discussed to test for the framework which was developed in the literature review chapter.

3.5 Data Analysis Framework

After the data collection process, it is important that data should be analysed carefully. There are two types of analysis methods, which are qualitative and quantitative, and both can be used for clarification of the data. Easterby-Smith et al. (2015) highlight that the selected analysis method should be compatible with the philosophy which is adopted before by the researcher.

In qualitative data analysis, a researcher's target is to analyse, criticise, compare and clarify the patterns and themes. When qualitative data analysis requires a repetitive set of tests on the data collected, quantitative technique follows the systematic order which is determined before (Hair et al., 2016). Figure 3.5 illustrates the common features of the qualitative and quantitative data.

Quantitative data	Qualitative data
Based on meanings derived from numbers	Based on meanings expressed through words (spoken and textual) and images
Collection results in numerical and standardised data	Collection results in non-standardised data requiring classification into categories
Analysis conducted through the use of diagrams and statistics	Analysis conducted through the use of conceptualisation

Figure 3.5: The common characteristics of qualitative and quantitative data. (Saunders et al., 2016)

In order to analyse the interviews, Saunders et al. (2016) point out nine different methods including: explanation building and testing, content analysis, quantifying qualitative data, grounded theory method, thematic analysis and narrative analysis.

In the template analysis, a coding template can be used as an analytical tool and researchers can code their data by using the coding template. These codes are gathered into an acceptable template. This first template can be modified with new data and a final coding template can emerge after all modifications. After these procedures, template analysis provides a structured and flexible approach for qualitative data analysis by revising the initial template and adding more suggestions to the initial template. This method allows for correction of initial deficiencies (Saunders et al., 2016). Although thematic method codes for the data at the beginning, template analysis technique allows new codes to emerge during the analysis of primary data (Easterby-Smith et al., 2015). In this dissertation, there was only one interview conducted and therefore, the author did not use template analysis because of the simplicity of the collected data.

3.6 Quality and Ethics of the Research

It seems that reliability and validity are essential conditions showing the quality of the research in qualitative social sciences (Saunders et al., 2016). In terms of reliability, there should be differences between external and internal reliability in the study. Internal reliability means providing consistency during the project. This condition can be provided, where possible, by doing more than one research project and conducting as many interviews about the same subject as possible. External reliability indicates that research should be consistent with findings of repeated data-gathering by the same researcher on other occasions or results replicated from other researchers by other people about the same issue.

The reliability concept also shows the transparency of the research projects. Research should be consistent with findings which also shows the transparency of research (Saunders et al., 2016). In this study, transparency will be provided only through a questionnaire because of the interviewee's preferences. Interview questions are shown as appendices which will be at the end of the dissertation. As indicated above, another quality condition is validity of the research. This refers to the degree of connection between the reality and the outcomes of the research. In other words, it is an ability to assess what the researchers aim to measure (Saunders et al., 2016).

In addition, Yin (2014) divides validity into three types:

- ❖ Internal Validity: This is related to a causal relationship between two or more variables in the research. This type of validity usually relates to positivist and quantitative research.
- ❖ External Validity: This is about the generality and questions of the research. In order to measure the external validity of research, researchers can ask such questions as "Can the findings of the research be generalised to other groups or studies?"
- ❖ Construct Validity: This is defined using various sources by collecting different data.

In this project, in order to ensure construct validity, publicly available data will be used as secondary data and primary data will be collected by conducting interviews. For external validity, it is not possible to generalise this case study by using statistical data.

3.7 Limitations of the Research

Yin (2014) highlights that case study is one of the best methods to evaluate a specific subject. However, researchers should be careful to avoid personal prejudgements. It is possible to give personal opinions on situations as well. In this study, it is believed that the author's philosophical position attempts to avoid any personal thoughts or bias. By selecting the right interview questions, the author will also reduce the personal interpretations of interviewees' responses during the interviews.

In this study, the main limitation arises from the data collection which is restricted to only one interview. Despite the three planned interviews, the interviews with Turkish airlines were not completed due to their confidentiality policy. The unique interview might be insufficient for collecting enough data from the industry.

Furthermore, it can be said that a single case study does not allow for generalisation of the outcomes of the study. On the other hand, in his work, Easton (2000) points out that sample size is not the only important thing in case studies, and it does not mean numerous cases and big sample sizes will provide more reliable studies. This project may be criticised for preferring the number of case studies instead of using multiple case studies. The author selected two companies (Turkish Airlines and Pegasus Airlines) within the sector. However, comparing the financial ratios with other airline companies' financial ratios will provide a combined approach and increase the generalisation of the study. All limitations of this study will be also mentioned in the conclusion as well.

3.8 Conclusion

In this chapter of the dissertation, the author sought answers to the following questions: How should the research be conducted? Which research philosophy and strategy are preferred by the researcher? Data collection methods and data analysis framework were covered in this part of the study as well. The quality of the research and ethical issues were illuminated by explaining the validity and reliability concepts. This study will continue with the results and analysis chapter of relevant data. It will also include the literature review and collected data.

4 Results and Analysis

4.1 Introduction

This chapter presents the primary data, which was collected by conducting the interview, and secondary data which is comprised of companies' annual reports for the research. The results of data analysis will be clarified within the conceptual framework which is outlined in the literature review chapter. By doing this, the author will have an opportunity to align theoretical and conceptual data to perform a better comparison in the discussion section.

In order to emphasise the importance of this part of the study, restating the research question and research objectives would be helpful:

The main research question is how could financial ratio analysis help Turkish Airline companies to evaluate their financial status in global markets.

- 1) *Developing a conceptual framework to emphasise the importance of financial analysis for airline companies with the help of current literature:*
 - *Understanding the meaning of each financial figure on the companies' financial statements by conducting a ratio analysis*
 - *Financial analysis processes within the airline industry*
 - *Selecting the appropriate financial ratios by considering the potential benefits and drawbacks*
- 2) *By benefitting from empirical data, to revise the theoretical framework, to interpret and compare the financial ratios at Pegasus Airlines and Turkish Airlines with seven global airline firms.*
- 3) *To recognise the strengths and weakness of these two companies and produce a set of recommendations to develop their financial performance in the world markets.*

The first objective has been achieved at the end of the literature review, and the conceptual framework (see Figure 2.7) shows the milestones of this aim. The second goal will be accomplished with the help of data analysis and results which are related activities, liquidity, profitability and solvency aspects of the companies' finances. Furthermore, airline specific ratios will present revenue and cost controls of the companies. The third objective will provide an insight to recognise the vulnerability and strengths of two Turkish airline companies by looking at their financial ratios in last seven years. Moreover, comparing those ratios with several airline companies will provide better information on the Turkish airline industry's economic performance. After the accomplishment of all these research objectives, it is expected that the main research question will be answered.

In this study, there is only one interview that was conducted with the vice president of Pegasus Airlines. The role of the interviewee is head of the Budget, Reporting and Cost Control Department at the company. Therefore, he was appropriate for giving some information about Pegasus Airlines.

Although Pegasus Airlines was established in 1990, its expansion started when it was bought by Esas Holding in 2005 and the company's shares opened to the public in the stock exchange in 2013. According to the last investor report, the company has 76 aeroplanes in total and the average age of each equals 5.7 years by June 2017; the number of employees increased from 700 to 5165 during the ten years. Its flight network has extended to 102 cities including 72 abroad and 36 domestic flight destinations in 40 countries. In the Turkish airline market, the company has a 30% share of domestic flights and 15 % share of international flights.

Although the first question of the interview was prepared to ensure the confidentiality of interviews, Turkish Airlines rejected the interview request due to the confidentiality policy of the company and this issue can be highlighted as one of the limitations of the data collection. Besides this, the transcript of the interview has not been shared as an appendix in the study because of the interviewees' preference. The interview question (see Appendix B) was prepared under a thematic structure according to the conceptual framework which is developed at the end of the literature review chapter. The structure of the chapter is illustrated in Figure 4.1

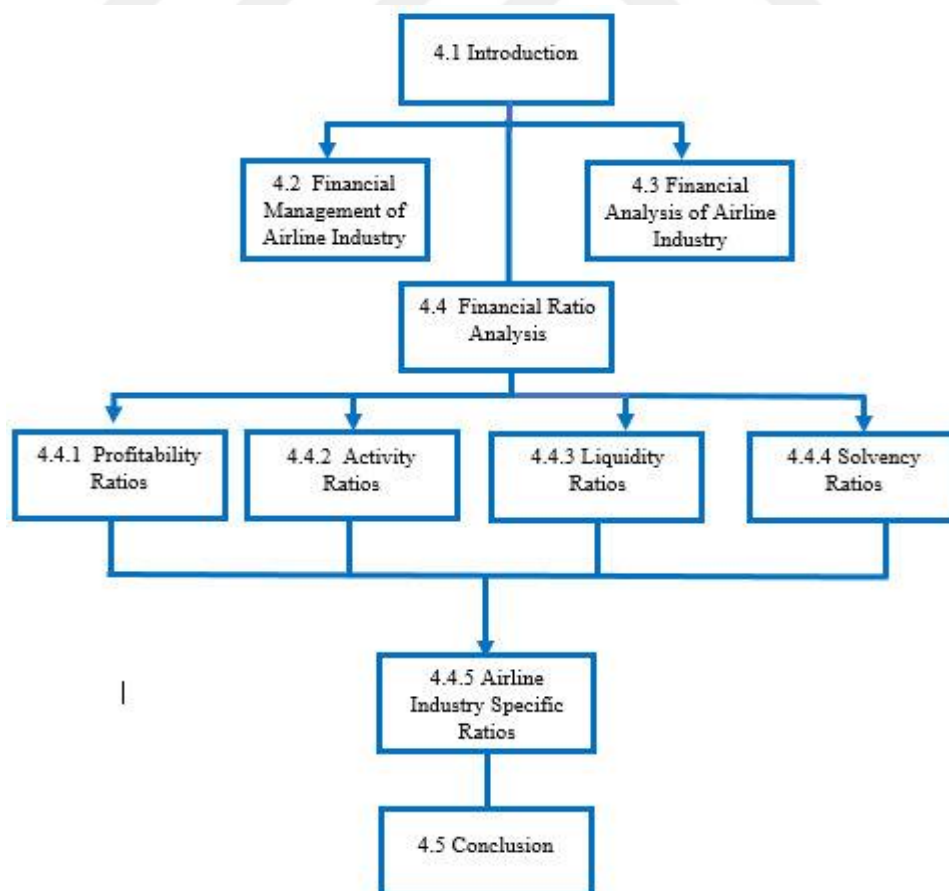


Figure 4.1: The structure of the result and analysis chapter (Made by author)

4.2 Financial Management of the Airline Industry

The first sub-theme of the conceptual framework is related to the financial management of the airline industry, and moreover, this subject is also connected with the financial analysis of airline companies to develop better strategies. Therefore, the questionnaire's second question which is shown in Table 4.1 was designed to find out the main points of the financial management of airline companies.

What are the main characteristic features of the financial management in the airline industry?

Table 4.1: The interview question for financial management of airline companies(Made by Author)

The purpose of the second question was to find out general features of financial management aspects of airline companies. Moreover, the question aimed to reveal advantages and disadvantages in the industry. According to the interviewee, the financial management of airline companies can be divided into two sections, and these sections are strictly related to continuing the cash conversion cycle. The first section is collecting money from the customers, and it is mentioned in the literature review that airline firms usually collect their revenue from customers by credit cards and cash payments before the flights. On the other hand, the number of doubtful accounts is lower than for other companies and also airline firms pay their operational expenses after the flights. For this reason, it can be said that airline firms can manage their cash conversion cycle more easily. Moreover, the Billing and Settlement Plan (BSP) which was designed by IATA to simplify the financial control and cash flow for airlines, provides centralisation for payments and collections for the companies. Sales agents and airline companies can interchange their payments more easily thanks to the BSP system.

On the other hand, the second section is related fuel price risks, foreign exchange risks and aircraft financing issues which might create problems for airline companies. This is especially as Turkish airline companies can use different types of currencies, notably the Turkish Lira, Euro and USD. Furthermore, the interviewee stated that the financing of air craft and maintenance costs, which are essential cost items, are made with USD. Summing up, the balance of collection and payment transactions and the position of foreign exchange are vital for airline firms. Both of these transactions and fuel prices depend on international trade balances and should be monitored carefully. Lastly, the interviewee mentioned that airline companies usually make hedging transactions to diversify these risks in the industry.

4.3 Financial Analysis of the Airline Industry

The subsequent two questions examine the financial analysis process in the airline industry. The purpose of these questions is, firstly, to determine the techniques of financial analysis and then to reveal the importance of financial analysis for airline companies. Table 4.2 shows the interview questions.

Could you tell me about the importance of the financial analysis for airline companies? Which analysis techniques are being used during the financial analysis process?
What are the stages of the financial analysis in your company? Which financial analysis technique is more beneficial for airline companies and more specifically to your firm?

Table 4.2: The interview question for financial analysis of airline companies (Made by Author)

The interviewee mentioned that each flight route can be accepted as a product of airline companies. In this context, companies usually take the contribution for each route into account during the financial analysis process. Moreover, the efficiency calculations are also important as well as the financial ratio analysis. By looking at all of these calculations, decision makers in airline companies make commercial decisions. For Pegasus Airlines, the interviewee pointed out that the action plan for the business is created in accordance with the results of financial analysis processes. He also added that this plan involves the cost, cash and capacity (3C) management of the company.

According to this plan, it can be said that each category includes different decisions in the 3C plan. For instance, Pegasus Airlines aims to sell some inefficient aircraft for cost management, to apply a dynamic price strategy for additional cash sources to the company. The interviewee mentions that, especially the liquidity and profitability aspects of the financial analysis process play an important role in determining strategic decisions as well as the future implications for the action plan. For the fourth question, it seems that the interviewee avoids clarifying the financial analysis stages in his company. However, he indicates that airline companies usually use a Horizontal Analysis technique while they are comparing their own financial figures and Ratio Analysis techniques can be used during the external financial analysis with other companies.

4.4 Financial Ratio Analysis of Turkish Airline Companies

Another sub-theme of the interview questions related to financial ratios usage in the airline industry which is the primary focus of the dissertation thesis. By collecting the primary data from interviews, the objective of this theme was, firstly, to identify the importance of financial ratio analysis for airline companies. There are hundreds of financial ratio types in the literature so that the second part of the theme will discuss the selected financial ratios which are preferred by airline companies in their financial analysis processes. Furthermore, in terms of secondary data collection, the author will use the secondary data which are collected from seven companies' annual reports between 2010 and 2016. Collected data used financial ratio calculations for these enterprises and the comparison of each financial ratio is shown towards the end of this section. The interview questions relating to financial ratios are illustrated in Table 4.3.

What about the use of financial ratios; does the company benefit from financial ratios during the analysis of financial figures?
Which financial ratios are being used in the financial analysis process for airline companies? What are the advantages and limitations of using these financial ratios in the airline industry?
According to the literature, liquidity, solvency and profitability are three important ratios for airline companies. To what extent do you agree or disagree with this statement?
What are the roles of financial ratios in the interpretation process? After analysing the financial figures, do you compare your results with other airline companies around the world?
What are the advantages and shortcomings of the Turkish airline firms in the global economy? Do you think the interpretation of financial figures can contribute to increasing their performance? If so could you explain it briefly?

Table 4.3: The interview question for financial analysis of Turkish airline companies(Made by Author)

As previously stated, the interviewee said that his company used horizontal and financial ratios during the financial ratio analysis. The first question asked about the usage of financial ratios, and aimed to show the utilisation of financial ratios in the related company, Pegasus Airlines. The interviewee highlighted that financial ratios are an essential concept in order to interpret the overall financial performance of airline companies and moreover, financial ratios provide an extended view which informs the company's current and future financial positions.

For instance, this is the case in terms of the liquidity position, if there is a severe reduction in the cash balance of the company. Managers should monitor the relevant ratios such as cash per aircraft and cash operating days, and they should also develop additional strategies in order to generate extra cash sources for companies. These strategies might be selling the air craft, using the leaseback and wet lease options, evaluating the prospective aircrafts in terms of financial leasing instead of operational leasing and of course, decreasing the operational costs. Therefore, companies should firstly monitor their financial ratios and then carefully decide which strategy can contribute to companies' overall performance.

The interviewee also states that the comparison of the company's financial ratios can be beneficial for developing better strategies. Regarding the Turkish airline sector, he said that Pegasus Airlines compares its financial ratios with Turkish Airlines which publishes its financial tables to the public regularly. Furthermore, the interviewee indicated that this comparison is more meaningful for the domestic airline market in Turkey. However, due to different flight networks, the comparison with Turkish Airlines' ratios cannot be relevant for the global airline industry. As referred to in earlier sections, Pegasus Airlines adopts the LCC model as a business model, and for this reason, the company compares its financial ratio with other global airline firms which have successfully adopted the LCC model for more years around the world.

For Pegasus Airlines, the company compares its financial ratios with other LCC airlines such as Ryanair, EasyJet, Wizzair and AirAsia. By making comparisons with global airline firms, Pegasus Airlines can understand its strengths and weakness in the airline industry. In addition to this awareness, the company identifies promising areas for the future. Hence, Pegasus Airlines can focus on these areas to make better investments and increase overall performance.

There are hundreds of ratios which can be used in financial ratio analyses of companies' financial statements, and it seems that the selection of suitable ratio types is very substantial to obtain better results from the financial analysis. During the interview, the participant referred to the selected financial ratio types in different questions, and for Pegasus Airlines, the company usually prefers to use airline specific ratios rather than common financial ratios to evaluate its financial performance. Regarding the airline specific ratios, the company firstly calculates the available seat kilometres/miles (ASK) which are an indicator of airline firms' passenger-carrying capacity. After the calculation of ASK, other related ratios like Revenue Available per seat kilometres (RASK), cost available per seat kilometres (CASK) and non-fuel-CASK ratios can be calculated in order to compare other airline firms' ratios. Apart from these ratios, the interviewee also mentions that the EBITDAR Margin, Cash per A/C and cash operating days are also used for that comparison. In terms of the common ratios, he stated that Pegasus Airlines has also benefited from Debt-Equity Ratios (Gearing), adjusted net debt/EBITDAR, cash operating days and EBIT margin ratios in recent years.

In the context of usage of EBITDAR, airline companies use EBITDAR as opposed to EBITDA during the financial analysis process to obtain more proper outcomes, since, when the fleet structures of airline firms are different from each other in terms of issues such as operational leasing or financial leasing, using the EBITDA might make the results poorer because of including the rents and taking restructuring costs into account. Among all these ratios, Pegasus Airlines especially focuses on the CASK and non-fuel CASK ratios, and the company compares its unit costs with other European and Global LCC airlines around the world. Ultimately, the interviewee also holds the same position as the literature which places extra importance on liquidity, profitability and solvency ratios for airline companies.

The Usage of Financial Ratios in Pegasus Airlines

The last questions in the interview aimed to find out Pegasus Airlines' short term and long term strategies for the future, thus making it possible to reveal the contribution of financial ratios to achieve the company's objectives. Furthermore, the interviewee also made further recommendations for the Turkish airline industry with the help of the last question. Table 4.4 shows the relevant questions in the questionnaire.

Could you express about the company, Pegasus Airlines/ Turkish Airlines, what are the short and long-term plans of the company?
Could you please explain briefly why these ratios are more important for the company? How could the interpretation of ratios affect the company's strategic plans?
How can financial analysis help to accomplish the company's objectives? Do you think that financial ratios contribute to the decision-making process in the company e.g. investment decisions, developing the business plan, etc?
What are the further suggestions to improve the company's financial indicators? Can these suggestions be valid for all airline companies or not?

Table 4.4: The interview questions about usage of financial ratios in Pegasus Airlines.(Made by Author)

According to the strategic objectives of Pegasus Airlines, the company has three important purposes including to acquire ancillary revenue sources by extending the operational scope of the company, maximising the aircraft utilisation and increasing operational efficiency by decreasing operational costs. By looking at these objectives, the interviewee notes that financial ratios play a critical role during the decision-making process in Pegasus Airlines. Managers can be aware of significant changes in the financial condition of the company with the help of the financial ratios as well. Furthermore, interpretation of selected ratios provides the past and current results of financial performance. In Pegasus Airlines, The decisions about cash, cost and capacity are constituted with the help of ratio analysis and interpretation of results. Finally, the interviewee suggests that Turkish Airline Companies should protect their financial positions against currency and fuel price fluctuations. Moreover, these companies should take some precautions, such as making natural and financial hedges, to minimise the risks for their income.

After the presentation of all the primary data for the study, there are also secondary data which are calculated based on different companies' financial figures from annual reports. First of all, according to the literature review, the 14 suitable financial ratios were selected for the ratio analysis. In order to compare the financial ratios of the Turkish Airlines companies', eight different global airline companies were determined in accordance with their locations, business models, availability of financial figures and the number of aircraft in their fleets. Besides the Turkish Airlines and Pegasus Airlines, these companies were Lufthansa, British Airways, KLM, American Airlines, AirAsia, Emirates and Ryanair. The period of analysis was between 2010 and 2016. After the collection of related financial figures from these companies' annual reports, financial ratio calculations were made with the help of Excel. These sections are made up of five sub sections including liquidity, activity, profitability, solvency and airline-specific financial ratios.

4.4.1 Liquidity Ratios

There are two types of liquidity ratios selected in this study. Pegasus Airlines has no data before 2012 as it was opened to the public that year. Table 4.5 and Table 4.6 show the quick and current ratios of selected airline companies from 2010 to 2016.

Quick Ratio								
Years/Firms	2010	2011	2012	2013	2014	2015	2016	
Turkish Airlines	0,58	0,63	0,59	0,38	0,32	0,34	0,48	Full Cost Carriers
KLM	0,68	0,64	0,67	0,61	0,47	0,47	0,54	
Lufthansa	1,28	0,71	0,60	0,49	0,18	0,17	0,28	
Emirates	0,82	0,79	0,94	0,67	0,63	0,63	0,52	
British Airways	0,65	0,62	0,47	0,51	0,55	0,45	0,60	
Pegasus Airlines			0,47	1,56	1,29	1,25	0,87	Low Cost Carriers
Airasia	1,27	1,10	1,25	0,82	0,56	0,65	0,71	
Ryanair	1,80	1,60	1,94	1,87	1,44	1,44	1,30	
Easyjet	1,17	1,26	0,80	0,97	0,74	0,57	0,66	
Southwest	1,13	0,76	0,71	0,63	0,57	0,48	0,56	

Table 4.5: Quick ratios of several airline companies between the years 2010 and 2016(Made by Author)

Current Ratio								
Years/Firms	2010	2011	2012	2013	2014	2015	2016	
Turkish Airlines	1,37	1,03	0,86	0,68	0,77	0,81	0,80	Full Cost Carriers
KLM	0,81	0,76	0,76	0,70	0,55	0,58	0,70	
Lufthansa	1,73	1,38	1,19	0,95	0,50	0,42	0,50	
Emirates	1,03	1,01	1,12	0,84	0,80	0,82	0,73	
British Airways	0,79	0,75	0,60	0,63	0,65	0,60	0,76	
Pegasus Airlines			0,63	1,79	1,77	1,85	1,41	Low Cost Carriers
Airasia	1,56	1,30	1,42	1,14	0,62	0,81	0,97	
Ryanair	1,98	1,89	2,14	1,97	1,51	1,72	1,43	
Easyjet	1,42	1,48	1,05	1,05	0,89	0,72	0,92	
Southwest	1,29	0,96	0,95	0,79	0,74	0,54	0,66	

Table 4.6: Current ratios of several airline companies between the years 2010 and 2016(Made by author)

4.4.2 Activity (Efficiency) Ratios

There are two different activity ratios calculated in this study. Before 2012, there are not any related ratios for Pegasus Airlines because of the availability of financial figures. Table 4.7 and Table 4.8 illustrate the activity ratios between 2010 and 2016.

Total Turnover Ratio								
Years/Firms	2010	2011	2012	2013	2014	2015	2016	
Turkish Airlines	0,79	0,72	0,79	0,74	0,76	0,60	0,45	Full Cost Carriers
KLM	0,80	0,84	0,96	1,01	1,13	1,14	1,09	
Lufthansa	0,75	0,86	0,78	0,72	0,72	0,70	0,61	
Emirates	0,81	0,80	0,75	0,79	0,78	0,70	0,69	
British Airways	0,61	0,92	0,97	0,96	0,87	0,74	0,69	
Pegasus Airlines			0,87	0,68	0,88	0,85	0,66	Low Cost Carriers
Airasia	0,30	0,32	0,31	0,29	0,26	0,30	0,31	
Ryanair	0,40	0,42	0,49	0,55	0,57	0,46	0,58	
Easyjet	0,74	0,76	0,88	0,95	1,00	0,96	0,88	
Southwest	0,74	0,82	0,87	0,87	0,88	0,87	0,81	

Table 4.7: Total assets ratios of several airline companies between the year 2010 and 2016(Made by author)

Fixed Asset Turnover Ratio								
Years/Firms	2010	2011	2012	2013	2014	2015	2016	
Turkish Airlines	1,30	1,06	1,17	1,09	1,13	0,86	0,62	Full Cost Carriers
KLM	1,86	2,02	2,26	2,42	2,62	2,80	2,59	
Lufthansa	1,60	1,65	1,65	1,37	1,23	1,21	1,03	
Emirates	1,32	1,25	1,24	1,12	1,07	1,00	0,96	
British Airways	0,97	1,46	1,55	1,52	1,46	1,39	1,40	
Pegasus Airlines			1,10	1,12	1,59	1,65	0,96	Low Cost Carriers
Airasia	0,42	0,52	0,50	0,45	0,43	0,57	0,63	
Ryanair	0,69	0,73	0,89	0,99	0,99	1,03	1,04	
Easyjet	1,54	1,58	1,58	1,84	1,76	1,60	1,49	
Southwest	1,10	1,23	1,27	1,26	1,25	1,18	1,10	

Table 4.8: Fixed assets ratios of several airline companies between the year 2010 and 2016(Made by Author)

4.4.3 Profitability Ratios

In order to show the profitability aspect of airline companies which has become substantially important in recent years, four different financial ratios are calculated in this study. As mentioned for previous ratios, Pegasus Airlines does not have any financial ratios since there are no financial figures available before 2012. In this section, the author used net profit for the calculation instead of operating profit or other profit types for two reasons. Firstly, net profit can give a proper view of how profitable a company is by tracking increases and decreases in the net profit and, secondly, it is expressed as a percentage instead of a number, and this provides a comparison of all business organisations no matter their differences in size.

During the period, KLM changed its measurement of benefits plans for employees in 2014, and this change is reflected in a dramatic increase in the equity. Hence, the ROE ratios for KLM have been omitted for the year 2014. Tables 4.9 and 4.10, show the profitability ratios of selected airline companies.

Net Profit Margin Ratio								
Years/Firms	2010	2011	2012	2013	2014	2015	2016	
Turkish Airlines	0,0003	0,0015	0,0760	0,0363	0,0753	0,1040	-0,0015	Full Cost Carriers
KLM	0,0168	-0,0002	-0,0104	0,0148	0,0404	0,0092	0,0527	
Lufthansa	0,0004	-0,0007	0,0004	0,0003	-0,0049	0,0007	0,0008	
Emirates	0,1033	0,0263	0,0338	0,0423	0,0542	0,0876	0,0173	
British Airways	0,0250	0,0670	0,0070	0,0240	0,0590	0,2210	0,1170	
Pegasus Airlines			0,0658	0,0369	0,0465	0,0321	-0,0367	Low Cost Carriers
Airasia	0,2680	0,1230	0,1590	0,0700	0,0150	0,0850	0,2980	
Ryanair	0,1020	0,1030	0,1270	0,1160	0,1030	0,1530	0,2380	
Easyjet	0,0407	0,0663	0,0672	0,1139	0,1302	0,1486	0,1019	
Southwest	0,0395	0,1195	0,0259	0,0447	0,0637	0,1180	0,1195	

Table 4.9: Net profit margin ratios of several airline companies between the year 2010 and 2016(Made by Author)

Return on Equity(ROE) Ratio								
Years/Firms	2010	2011	2012	2013	2014	2015	2016	
Turkish Airlines	0,764	0,041	0,210	0,098	0,199	0,212	-0,003	Full Cost Carriers
KLM	0,054	-0,001	-0,065	0,089		0,230	0,523	
Lufthansa	0,125	-0,033	0,149	0,092	-0,210	0,228	0,212	
Emirates	0,263	0,075	0,105	0,134	0,167	0,226	0,041	
British Airways	0,070	0,411	0,078	0,114	0,334	0,545	0,317	
Pegasus Airlines			0,386	0,077	0,123	0,077	-0,087	Low Cost Carriers
Airasia	0,292	0,137	0,162	0,072	0,018	0,122	0,329	
Ryanair	0,107	0,127	0,169	0,174	0,159	0,215	0,433	
Easyjet	0,081	0,132	0,142	0,237	0,267	0,305	0,183	
Southwest	0,074	0,026	0,060	0,103	0,168	0,296	0,266	

Table 4.10: Return on equities (ROE) of several airline companies between the year 2010 and 2016(Made by Author)

4.4.4 Solvency Ratios

While analysts are evaluating the ability of airline companies to meet long term debt obligations, solvency ratios could help to show these abilities. There are two solvency ratios used in this study. As for other types of ratio, Pegasus Airlines has no financial data before 2012, and thus, there are not any ratios for the company before that year. For debt to equity ratio (gearing) of KLM, equities increased substantially because of the remeasurement of benefits plans and this growth created an irrelevance in the calculation. Hence, the ratio for KLM for the year 2014 has been neglected. Tables 4.11 and 4.12 illustrate the solvency ratios of several airline companies from 2010 to 2016.

Debt to Asset Ratio								
Years/Firms	2010	2011	2012	2013	2014	2015	2016	
Turkish Airlines	0,65	0,73	0,71	0,73	0,71	0,70	0,72	Full Cost Carriers
KLM	0,79	0,76	0,85	0,83	1,00	0,95	0,89	
Lufthansa	0,44	0,43	0,48	0,45	0,48	0,49	0,49	
Emirates	0,68	0,72	0,76	0,95	0,75	0,73	0,71	
British Airways	0,78	0,85	0,90	0,79	0,84	0,70	0,74	
Pegasus Airlines			0,85	0,66	0,67	0,65	0,72	Low Cost Carriers
Airasia	0,69	0,71	0,69	0,72	0,78	0,79	0,70	
Ryanair	0,62	0,66	0,63	0,63	0,63	0,67	0,68	
Easyjet	0,63	0,62	0,58	0,52	0,53	0,53	0,51	
Southwest	0,60	0,62	0,62	0,62	0,66	0,65	0,64	

Table 4.11: Debt to asset ratio of several airline companies between the years 2010 and 2016(Made by Author)

Debt to Equity (Gearing) Ratio								
Years/Firms	2010	2011	2012	2013	2014	2015	2016	
Turkish Airlines	0,90	1,41	1,35	1,47	1,19	1,24	1,52	Full Cost Carriers
KLM	0,51	0,40	0,59	0,60		2,15	0,74	
Lufthansa	0,35	0,29	0,22	0,22	0,27	0,19	0,13	
Emirates	1,32	1,94	3,01	1,30	1,85	0,80	0,96	
British Airways	0,73	0,83	0,70	0,39	0,54	0,51	0,37	
Pegasus Airlines			3,30	0,50	0,29	0,18	1,05	Low Cost Carriers
Airasia	1,74	1,41	1,27	1,76	2,50	2,29	1,42	
Ryanair	1,32	1,94	3,01	1,30	1,85	0,80	0,96	
Easyjet	0,20	0,12	0,17	-0,17	0,06	-0,06	0,02	
Southwest	0,52	0,63	0,48	0,45	0,58	0,64	0,51	

Table 4.12: Debt to equity ratio (gearing) of several airline companies between the years 2010 and 2016(Made by Author)

4.4.5 Airline Industry Specific Ratios

Apart from the common ratios, there are airline specific ratios which examine airline companies' financial performance solely. There are many ratios that could have been used in the industry, and each ratio can help to reveal the different financial performance of companies. In this study, there are four different airline specific ratios calculated for nine different airline companies around the world.

While these ratios are being calculated, the difference between the exchange rates might have a negative effect on the comparison of these ratios. For this reason, the author selected the "US dollar" as the primary currency and all other currencies have been calculated according to the average exchange rates which are taken from the Fiscal Service Reports of the US Department of Treasury (Fiscal Service, 2017). For Turkish Airlines and Pegasus Airlines – Turkish Lira, for Lufthansa and KLM – Euro, for British Airways and Ryanair – British Pound, for AirAsia – Malaysian Ringgit, for Emirates – UAE Dirham have been converted to US Dollar. During the calculation of airline companies' financial ratios, the average rate of the currencies has been used for financial ratio calculations. Table 4.13 shows the average exchange rates for the years between 2010 and 2016. Also, Tables 4.14, 4.15, 4.16 and 4.17 show the four different airline-specific ratios.

The Exchange rates on 31 December of the Years								
Dollar to Currency	2010	2011	2012	2013	2014	2015	2016	Avarage
Turkish Lira	1,51	1,88	1,79	2,14	2,33	2,92	3,52	2,30
Euro	0,77	0,77	0,76	0,73	0,82	0,92	0,95	0,82
British Pound	0,64	0,64	0,62	0,61	0,64	0,68	0,81	0,66
Malaysian Ringit	3,17	3,16	3,06	3,28	3,50	4,29	4,49	3,56
UAE Dirham	3,67	3,67	3,67	3,67	3,67	3,67	3,67	3,67

Table 4.13: The exchange rates of dollar to five different currencies (Adapted from Fiscal Service, 2017)

Load Factor								
Years/Firms	2010	2011	2012	2013	2014	2015	2016	
Turkish Airlines	73,70	72,60	77,40	79,00	78,90	77,90	74,60	Full Cost Carriers
KLM	83,60	85,60	85,70	85,80	86,50	86,40	87,20	
Lufthansa	79,40	77,20	78,10	79,10	79,40	80,20	79,10	
Emirates	80,00	80,00	79,70	79,40	79,60	76,50	75,10	
British Airways	77,60	78,20	79,90	81,30	81,00	81,50	81,20	
Pegasus Airlines			79,90	80,20	79,90	79,00	78,60	Low Cost Carriers
Airasia	78,00	80,00	79,00	79,00	78,00	80,00	86,00	
Ryanair	82,00	83,00	82,00	82,00	83,00	88,00	93,00	
Easyjet	87,00	87,30	88,70	89,30	90,60	91,50	91,60	
Southwest	79,30	80,90	80,30	80,10	82,50	83,60	84,00	

Table 4.14: Load factor ratios of several airline companies between the years 2010 and 2016(Made by Author)

Revenue Per Available Kilometre(RASK) Ratio								
Years/Firms	2010	2011	2012	2013	2014	2015	2016	
Turkish Airlines	0,054	0,060	0,066	0,062	0,069	0,072	0,066	Full Cost Carriers
KLM	0,101	0,101	0,101	0,093	0,090	0,092	0,060	
Lufthansa	0,075	0,075	0,080	0,081	0,079	0,081	0,077	
Emirates	0,050	0,055	0,064	0,066	0,066	0,066	0,062	
British Airways	0,077	0,088	0,091	0,095	0,093	0,089	0,088	
Pegasus Airlines			0,038	0,040	0,042	0,041	0,039	Low Cost Carriers
Airasia	0,022	0,022	0,021	0,016	0,015	0,016	0,017	
Ryanair	0,066	0,068	0,075	0,079	0,074	0,081	0,086	
Easyjet	0,046	0,059	0,063	0,068	0,068	0,067	0,063	
Southwest	0,063	0,065	0,067	0,069	0,072	0,070	0,067	

Table 4.15: RASK ratios of several airline companies between the years 2010 and 2016(Made by Author)

Cost Per Available Kilometre (CASK) Ratio								
Years/Firms	2010	2011	2012	2013	2014	2015	2016	
Turkish Airlines	0,062	0,070	0,062	0,066	0,073	0,076	0,078	Full Cost Carriers
KLM	0,110	0,107	0,113	0,109	0,100	0,101	0,091	
Lufthansa	0,116	0,117	0,117	0,108	0,109	0,105	0,068	
Emirates	0,072	0,082	0,081	0,079	0,076	0,062	0,061	
British Airways	0,091	0,095	0,101	0,101	0,095	0,087	0,084	
Pegasus Airlines			0,046	0,046	0,051	0,051	0,055	Low Cost Carriers
Airasia	0,020	0,022	0,028	0,019	0,019	0,018	0,017	
Ryanair	0,081	0,075	0,079	0,087	0,085	0,088	0,088	
Easyjet	0,051	0,052	0,056	0,058	0,057	0,054	0,054	
Southwest	0,061	0,067	0,069	0,068	0,068	0,060	0,061	

Table 4.16: CASK ratios of several airline companies between the years 2010 and 2016(Made by Author)

Non-Fuel Cost Per Available Kilometre (CASK) Ratio								
Years/Firms	2010	2011	2012	2013	2014	2015	2016	
Turkish Airlines	0,047	0,048	0,039	0,041	0,047	0,053	0,057	Full Cost Carriers
KLM	0,079	0,074	0,076	0,074	0,067	0,070	0,069	
Lufthansa	0,097	0,093	0,085	0,081	0,080	0,087	0,056	
Emirates	0,047	0,049	0,049	0,048	0,050	0,046	0,046	
British Airways	0,065	0,063	0,065	0,066	0,064	0,061	0,063	
Pegasus Airlines			0,027	0,027	0,030	0,034	0,036	Low Cost Carriers
Airasia	0,011	0,011	0,016	0,009	0,010	0,010	0,011	
Ryanair	0,048	0,046	0,045	0,047	0,046	0,050	0,052	
Easyjet	0,036	0,036	0,037	0,039	0,038	0,037	0,039	
Southwest	0,041	0,042	0,044	0,044	0,046	0,046	0,047	

Table 4.17: Non-fuel CASK of several airline companies between the years 2010 and 2016(Made by Author)

4.5 Conclusion

This chapter has presented the primary data collected by interview, and it is also supported by secondary data which was collected from companies' annual reports. In order to compare these data with the literature review, all the results are categorised under a structure which has similar themes for the conceptual framework. The author will benefit from this structure in the next chapter, which is "Discussion and Recommendations", to accomplish the second and third objectives of the study. In that chapter, there will be a comparison between findings from this chapter and results from reviewed literature.

5 Discussion And Recommendations

5.1 Introduction

This episode can be seen as the melting point of previous sections of the dissertation. All findings in the literature review and results & analysis chapter will be combined in this chapter. By comparing and contrasting three separate sources of information (literature review, the interview and companies' documents), this chapter makes comments and recommendations based on the financial ratio analysis of the Turkish airline industry. During this chapter, the reviewed literature and collected empirical data will be considered, and thus, the missing points in both parts will be identified. Furthermore, it may be beneficial to restate the main research question to understand the importance of this chapter:

- ***How could financial ratios help Turkish Airline firms evaluate their financial performance in global markets?***

In order to answer this question, there are also sub-research purposes in the study and the last sub-research purpose will be achieved in this chapter. ***This purpose is to identify the strengths and weakness of Turkish airline companies in global markets by interpreting the financial ratios.*** This chapter will follow a similar flow to the results and analysis chapter's structure, and it accomplishes the second and third objectives of the study which are mentioned below:

- *To revise and validate the framework, to interpret and compare the financial ratios of Pegasus Airlines and Turkish Airlines with seven global airline firms.*

More specifically, the financial ratio analysis of the Turkish airline industry will satisfy the objectives in the subsequent sections. The third goal is to provide further suggestions to Turkish Airline firms which will be partly completed during the chapter. The structure of the chapter is illustrated in Figure 5.1.

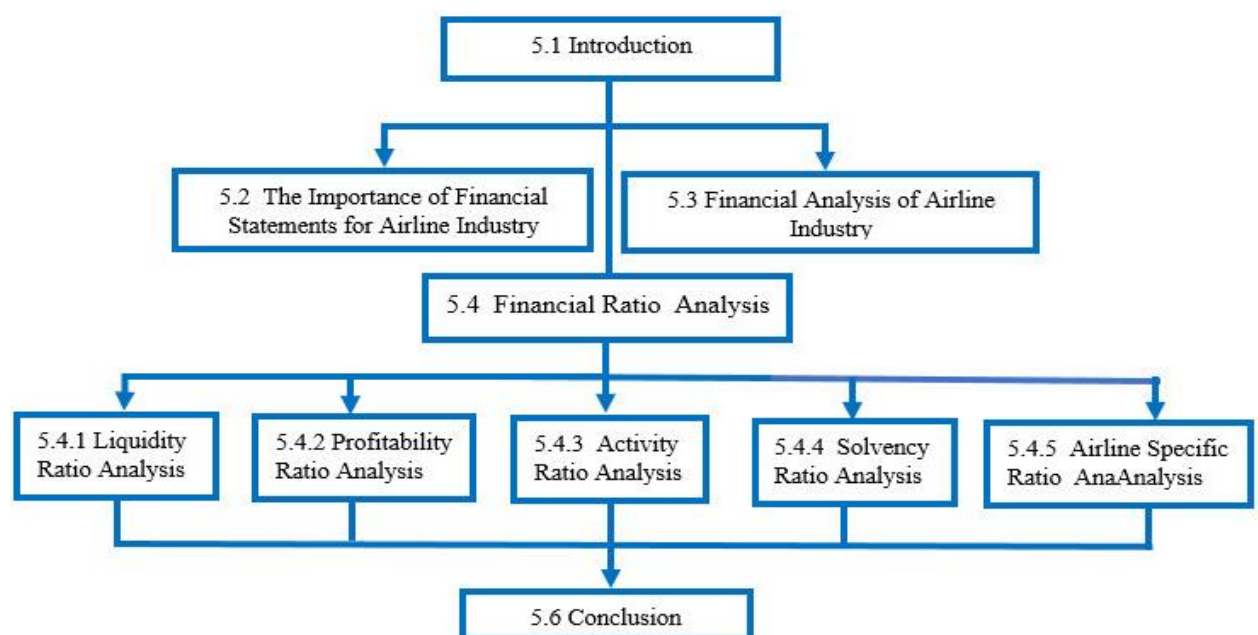


Figure 5.1: The structure of the conceptual framework chapter (Made by Author)

5.2 The Importance of Financial Statements for the Airline Industry

The purpose of this theme is to understand the financial management of airline companies by looking at financial statements of airline companies, since, as for all business organisations, economic performance and financial conditions of airline companies are presented in the financial statements of companies. For this reason, these statements essentially reflect financial management performance in businesses.

As mentioned in the literature review section, every item in the financial statements can indicate different aspects of companies' financial results, and there are many elements in the financial statements, and each item has many sub sections as well. For instance, revenues, costs of sales, expenses and operating income are several elements in the income statement. Therefore, it can be said that looking at all the elements of financial statements is a complicated process for financial statement users and it takes a lot of time to analyse each item as well. In order to simplify this complexity, financial statement users focus on specific items which are more important than other items. Hence, it is important to determine which items are more significant for companies.

According to the reviewed literature, almost every piece can play a major role for airline companies' economic performance and empirical research allows the most important items in airline companies' financial statements to be determined. As reported by the interview, firstly the cash conversion cycle is essential for Pegasus Airlines in the Turkish airline industry, and thus, it seems that all related items in the balance sheet have been monitored by the management of the company. In order to provide continuity of cash balance, the company attaches importance to current assets and liabilities. Although account receivables and cash & cash equivalents can be regarded as essential items for airline companies, inventory and prepaid expenses are less significant in the operational cycle. Another important issue arises from the risk perception of the companies. For Turkish airline companies, fuel prices and foreign exchange fluctuations take an essential place in the financial management. In order to diversify their risks, companies might benefit from different instruments such as hedging transactions or other financial investments. For this reason, cash flow financing and investing activities in the cash flow statement also help to show the return on these activities.

Both theoretical and empirical research about the financial statements show that financial statements can contribute to airline companies with two essential benefits. Firstly, these statements are useful for decision-makers in the companies, especially to show the results of their financial decisions. Secondly, financial statements involve a lot of information about the future. For example, potential risks can be revealed before complex problems arise with the help of financial statements.

Regarding the airline industry, even if there are many items on the financial statements, current assets and current liabilities are especially important for airline companies' management to continue the cash conversion cycle. This is because airline firms are capital-intensive businesses and they need large sums of money to pay their expenses such as different types of taxes, employees' benefits and wages or fuel expenses.

In terms of the financial ratios, it is possible to deduce that liquidity ratios could help reflect the current financial position of companies. Hence, managers or other financial users should use the appropriate liquidity ratios to reveal their companies' conditions about the current activities.

5.3 Financial Analysis of the Airline Industry

After the clarification of the importance of financial statements, a proper financial analysis can contribute to monitoring the financial performance of companies. However, it can also be deduced that looking only at financial statements might be insufficient in some cases and analysing the relationship between financial statements is also essential for companies. Therefore, making financial analysis establishes the connection between the financial statements. Besides this contribution, companies can compare their financial status with their performances as well as other business organisations. In the literature, there are different types of financial analysis techniques, and each technique has both benefits and shortcomings for companies and selecting the appropriate technique is especially important for better results. In this study, empirical results helped to determine accurate analysis techniques which comprise more benefits than drawbacks for airline companies.

Among all financial techniques, the interviewee stated that airline companies use horizontal analysis techniques for internal comparisons and financial ratio analysis for external comparisons with other companies in the airline industry. For this reason, it has been assumed that airline firms, firstly, compare and analyse their current and former financial figures with horizontal analysis technique. By using this method, airline managers can reveal the direction of the trends of their businesses such as staying the same, decreasing or growing. Moreover, possible deterioration in the accounts can be identified in advance and managers can take precautions before these risks become dangerous and more harmful.

Like other financial analysis techniques, using a horizontal analysis method also has several drawbacks, and the reviewed literature points out that companies usually face shortcomings for these techniques while they are comparing their performances with other companies due to using different accounting methods and selecting the exceptional year as a base year. On the other hand, if airline companies use this technique during the internal financial analysis, they can avoid the potential shortcomings of the horizontal analysis method. Apart from this method, financial ratio analysis which will be discussed in the next theme is also beneficial for airline companies.

In terms of the decision-making process, financial analysis plays an important role for airline company managers. In the literature, analysis of financial statements can affect business models and the strategic decisions of airline firms, and as it was mentioned by the interviewee that the results of the financial analysis are very beneficial for the determination of an action plan about the cash, capacity and cost management. For Pegasus Airlines, outputs of financial analysis are especially important for strategic decisions which are about the liquidity and profitability aspect of the business.

As a result, theoretical and empirical research on the subject shows that airline companies benefit from the results of financial analysis during the decision-making process. Comparing the financial figures with different analysis techniques is beneficial to reveal the strengths and weaknesses of businesses. Furthermore, using a horizontal analysis technique in the internal financial analysis of companies can minimise the obstacles of the method and would be more beneficial for managers and other analysts.

5.4 Financial Ratio Analysis

This theme which can be regarded as the primary focus of the study explains the usage of financial ratio analysis within airline companies. In this section, firstly, the importance of financial analysis will be argued, and appropriate financial ratio types will be clarified by considering the potential benefits and limitations of these ratios. In addition, financial ratio analysis of the Turkish airline industry will be examined by comparing their results with other global airline firms.

Like other financial analysis techniques, ratio analysis is also an advantageous method for identifying the relationship between business segments in the financial statements. Among numerous types of ratio, companies should determine suitable ratios in accordance with their usage purposes, and thus, they can interpret their performances with other firms. In the literature, the interpretation of financial ratios can reveal many relations and trends throughout financial statements over the years. Furthermore, managers or other analysts can follow the direction of specific divisions such as profitability, liquidity or solvency of firms.

During the interview, the interviewee approved the reviewed literature, and he also explained another contribution of financial ratios in the decision-making process with an example. The example is related to the liquidity position of Pegasus Airlines and the interviewee stated that "the managers should firstly monitor the relevant liquidity ratios before the decision-making process and then they develop additional strategies to improve the liquidity ratios. By using this example, it can be said that managers also determine their strategies by interpreting the results of these ratios. After implementing the developed strategies, they can monitor future financial ratios to check the results of the policies as well. Beyond the liquidity ratios, this statement can not only [be] valid for liquidity ratios, but it is also valid for other types of financial ratios.

Another issue arises from the comparison of financial ratios with other airline companies. Both literature and empirical research suggests that ratios should be compared with other companies in the same industry. On the other hand, companies should be aware of fluctuation in fuel prices, different flight networks and business models may slightly negate the results of the comparisons. Despite these problems, airline companies can identify their strengths and weakness in the industry by comparing their financial ratios with other companies. Furthermore, managers can realise the possible trends from the financial performance of their companies by comparing their results with previous financial ratios and current financial ratios.

Summing up, financial ratio analysis has many benefits as well as limitations like other types of financial analyses. In the literature review, various authors indicate different advantages of the financial ratios, and it can be said that these benefits of ratios are almost similar for all companies no matter which industry they are in. On the other hand, regarding the limitations of financial ratios, every business can face different limitations of the financial ratios during the analysis and a limitation in a particular financial ratio may not be a problem for another company.

In terms of the limitations of ratios, deteriorations in the financial figures can negatively affect the results of financial ratios, and this issue draws attention to the importance of reliable financial reports. Another problem comes from using definitions and calculations of financial ratios; both the literature and empirical research point out that the difference between definitions might result in different calculations and mislead the analysts, since using various definitions results in a different value for ratios in the same year. For example, ROCE values of Lufthansa are different from calculated ROCE values in this study due to the usage of various formulas during the calculations. Lastly, Horrigan (1965) mentions that seasonal conditions might affect the financial ratios in the literature review. However, in this study, empirical research shows that, even if there are negative seasonal effects over the financial performance of companies, the results of financial ratios would be lower at the same time. Therefore, it seems that adverse effects of seasonal conditions are insufficient over the ratios.

The usage of financial ratio types can be divided into two sections, namely common ratios and industry-specific ratios. In the literature, authors usually mention the common ratios, and there is not sufficient information about industry-specific ratios for any industry. Hence, it seems that usage of industry-specific ratios and its pros and cons can be revealed by doing empirical research. For Pegasus Airlines, the company uses airline-specific ratios like other airline firms and Pegasus frequently prefers airline-specific ratios rather than common ratios. In this study, ratio comparison has been made between airline companies according to business models. Using a non-fuel CASK ratio also overcomes the fuel price changes in the comparison of cost structures of airline firms. Beyond these solutions about the comparison, it is not possible to deal with the differences in flight networks and this problem can be indicated as another limitation of the study.

Although there is not any exact number about the usage of financial ratios in analyses, both literature and empirical research highlights that companies should determine suitable ratios which can comprehensively evaluate related subjects in the financial analysis process. In this study, the author chose to examine fifteen different ratios including ten common ratios and five airline-specific ratios with global airline companies (five FCC and five LCC firms). These ratios have been calculated for the years between 2010 and 2016 and this calculation also provided a horizontal analysis between companies' own financial ratios from previous years. By calculating and comparing all ratios, the financial performance of Turkish airline companies will be examined in the global airline markets regarding the liquidity, profitability, activity and solvency aspects of companies. Moreover, airline industry-specific ratios will show the position of Turkish Airline companies in this section.

5.4.1 Liquidity Ratio Analysis

The first sub-theme of the section will focus on Turkish airline companies short-term financial performance. Revived literature reflects that liquidity ratios are essential financial indicators which measure a company's ability to meet short-term liabilities. Moreover, these ratios examine how current assets are used in the operating cycles of companies.

Current Ratio Analysis

The first liquidity ratio is the current ratio, and while Figure 5.2 is showing the current ratios of full cost carrier (FCC) companies, Figure 5.3 illustrates the current ratios for low-cost carriers (LCC) between the years 2010 and 2016.

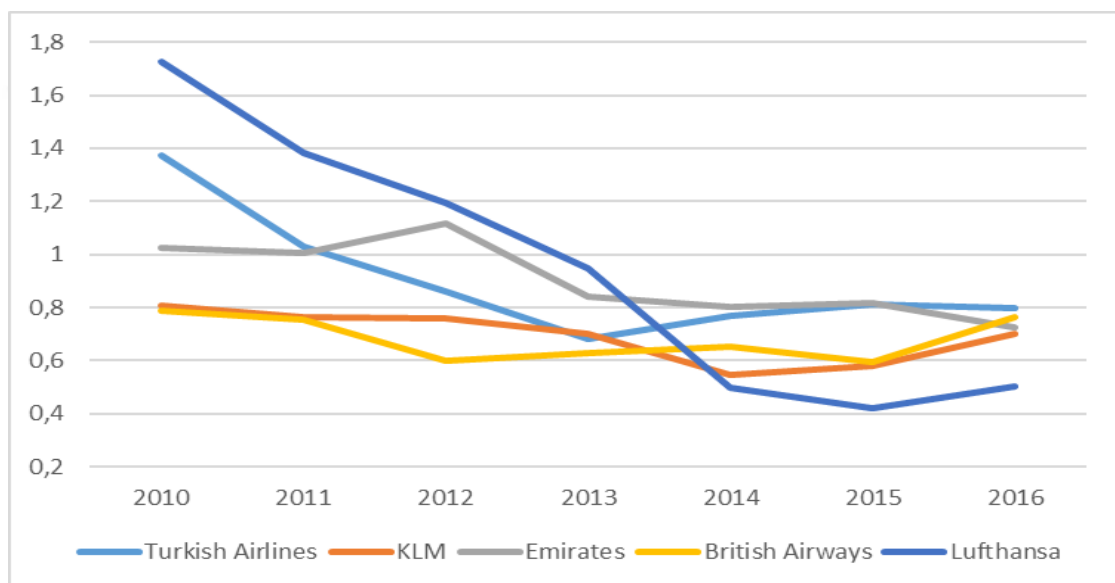


Figure 5.2: Current ratios of FCC airline companies between 2010 and 2016(Made by Author)

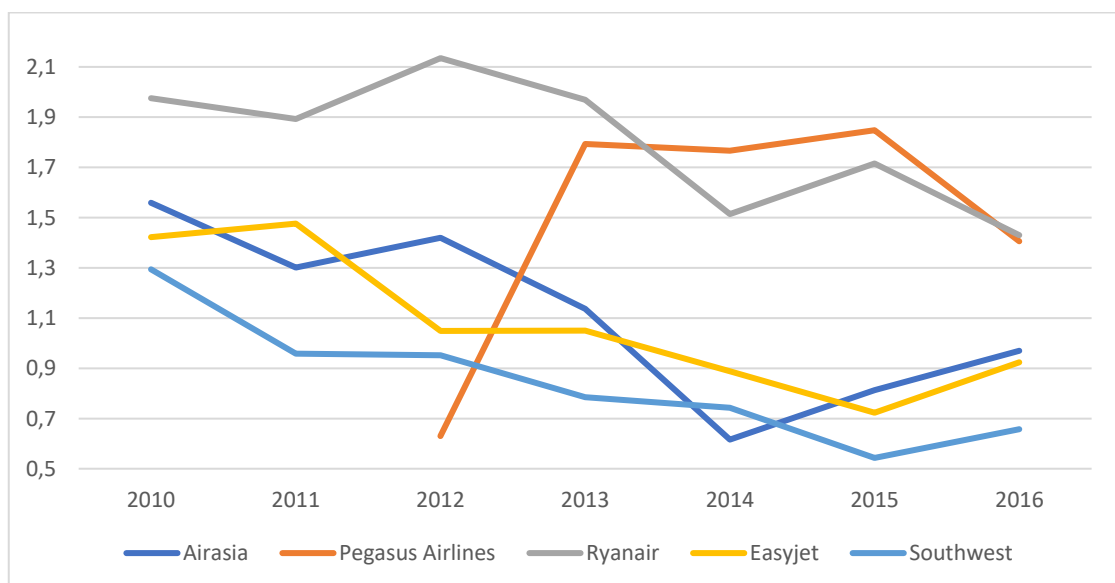


Figure 5.3: Current ratios of LCC airline companies between 2010 and 2016(Made by Author)

As can be seen above on the two graphs, the current ratios of LCC airline companies have safer liquidity positions than FCC companies. For Turkish Airlines, the company has the highest average ratios of all the airline companies in its division and the average value of the ratios has equalled 0.90 for last seven years. This value indicates that the firm's liquidity position is safer than other firms, but managers should be aware that possible reductions might create problems to satisfy the short-term obligations. Although there is not any ideal rate for this ratio, a 1:1 rate might be satisfactory as it shows companies can cover their short term liabilities by using their current assets at least.

On the other hand, LCC companies have relatively higher ratios than FCC companies, and, due to political issues in Turkey, the ratio of Pegasus Airlines slightly reduced in 2015. However, notably Ryanair and Pegasus Airlines have been in strong positions in the last years. In their work Vasigh et al. (2015) suggest that if the current ratios of companies are above the 1:1, these companies can expand their businesses. For Pegasus Airlines, this recommendation can be applied, and the company can grow its business by adding new routes or purchasing new aircraft. However, managers of the company should also take other factors into account before any possible expansion decision.

Quick Ratio Analysis

Another liquidity ratio ignores the non-liquid current assets, and it only focuses on liquid assets such as cash and cash equivalents, account receivables and marketable securities which can be easily converted into cash. Like current ratio, the denominator of this ratio is current liabilities, and they consist of short term obligations of companies. In this study, Figure 5.4 firstly reflects the quick ratios of FCC airline companies, and subsequently, Figure 5.5 will show the LCC airline companies' quick ratios for the last seven years.

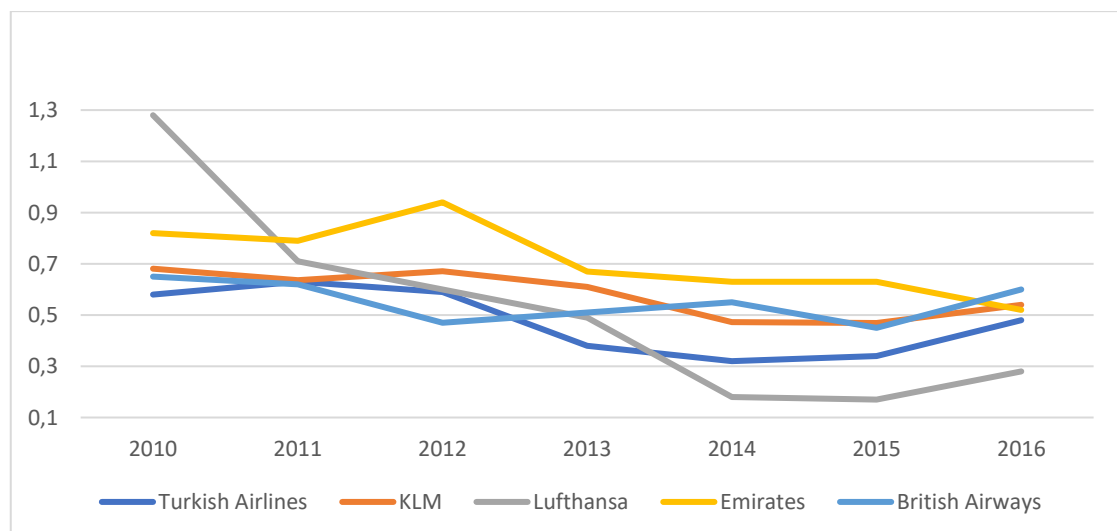


Figure 5.4: Quick ratios of FCC airline companies for the years between 2010 and 2016(Made by Author)

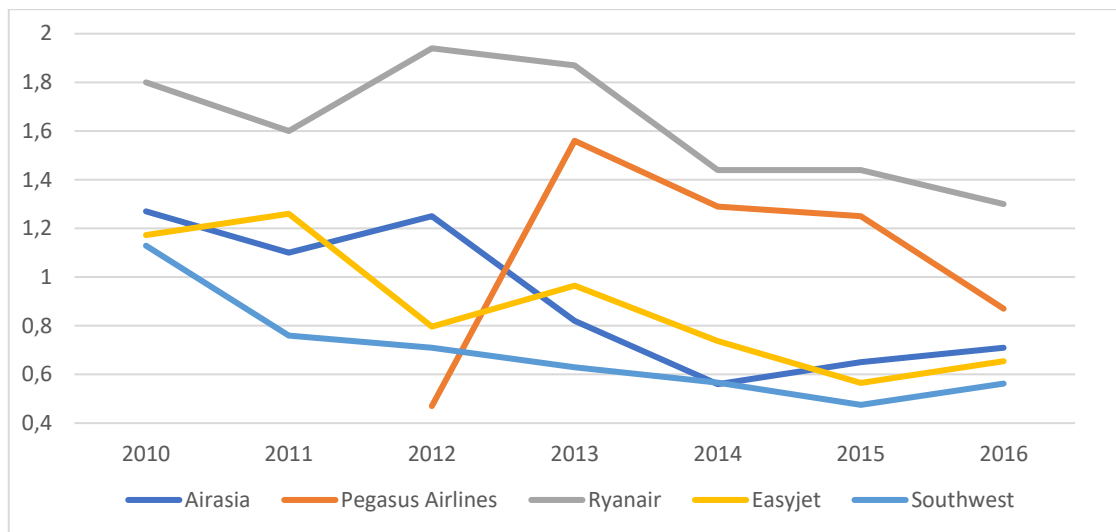


Figure 5.5: Quick ratios of LCC airline companies for the years between 2010 and 2016(Made by Author)

In terms of the FCC airline companies, the distribution of the quick ratios for these companies is lower than 1.0, and the quick average ratios of Turkish Airlines is approximately equal to 0.47 and this value means that the company may face liquidity problems in case of an unusual situation. However, the position of the company is at the average level compared to other airline companies, and this situation reflects that airline companies are susceptible to problems in the airline industry regarding liquidity positions.

For LCC companies, Ryanair and Pegasus Airlines are in a safer position than other companies like the current ratio. Despite the continued decrease in the last years, the average ratios of Pegasus Airlines are slightly above the 1.0, and this value is an indicator that the company can meet its current liabilities at least using only its liquid assets. However, managers of Pegasus Airlines should, firstly, find out the reasons for reductions in the ratio, and then they should take some precautions in order to stop this negative trend.

The difference between current and quick ratios is related to non-liquid assets, such as inventory and prepaid expenses and it seems that if this difference were greater, companies might face some difficulties in financial recessions since they could not convert these non-liquid assets into cash easily. However, airline companies are capital intensive firms, and therefore, this difference should not be higher because of the lower inventory.

In terms of the structure of the current assets, airline companies usually have more cash and cash equivalents than account receivables because of the collection from customers. Furthermore, empirical research shows that airline companies make short-term financial investments in order to avoid foreign exchange fluctuations. In contrast, there are two big components of current liabilities in airline companies. Firstly, short term borrowing usually involves bonds, lease liabilities and bank borrowings or overdrafts. Secondly, short-term portions of long-term borrowings are related to long-term liability instalments and these segments generally include lease payments which arise from aircraft or other leasing agreements.

5.4.2 Efficiency Ratio Analysis

These ratios ask the managers or other analysts “How can the company carry out its daily tasks by using its assets during the operational cycle?” In other words, they are related to the assets management of airline companies. According to the literature, some authors mention that these ratios cannot be useful to evaluate the efficiency of airline companies as they are capital intensive firms and do not have much inventory to hand. On the other hand, airline companies have lots of fixed assets such as owned aircraft and spare parts. Hence, the evaluation of fixed and total asset turnover would be beneficial to measure Turkish airline companies’ operational efficiencies.

Total Asset Turnover Ratio Analysis

In the literature, this ratio shows how much revenue the company generates for every £1 of its assets, and it measures airline companies' performance of overall effectiveness from all assets. Figures 5.6 and 5.7 show the total asset turnover ratios both FCC and LCC airline companies.

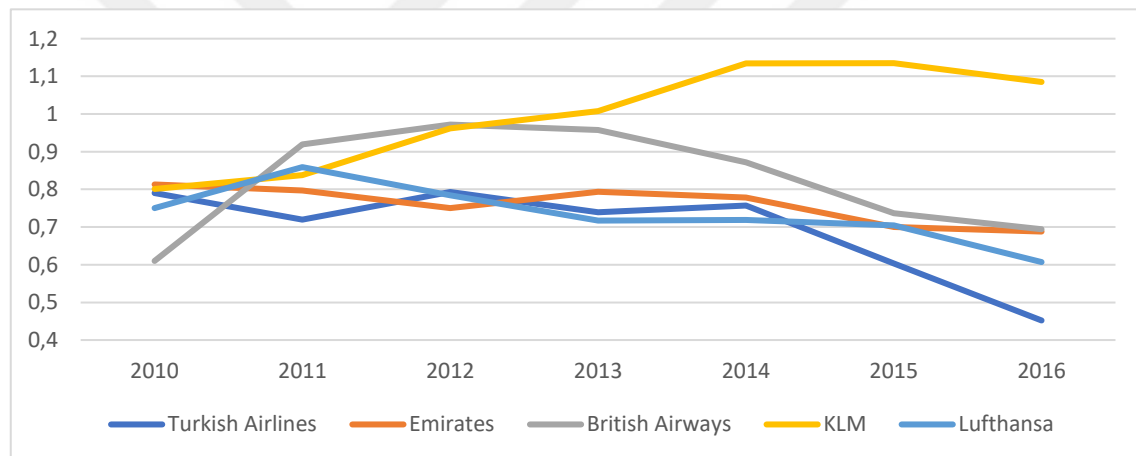


Figure 5.6: Total asset turnover ratios of FCC airline companies for the years between 2010 and 2016(Made by Author)

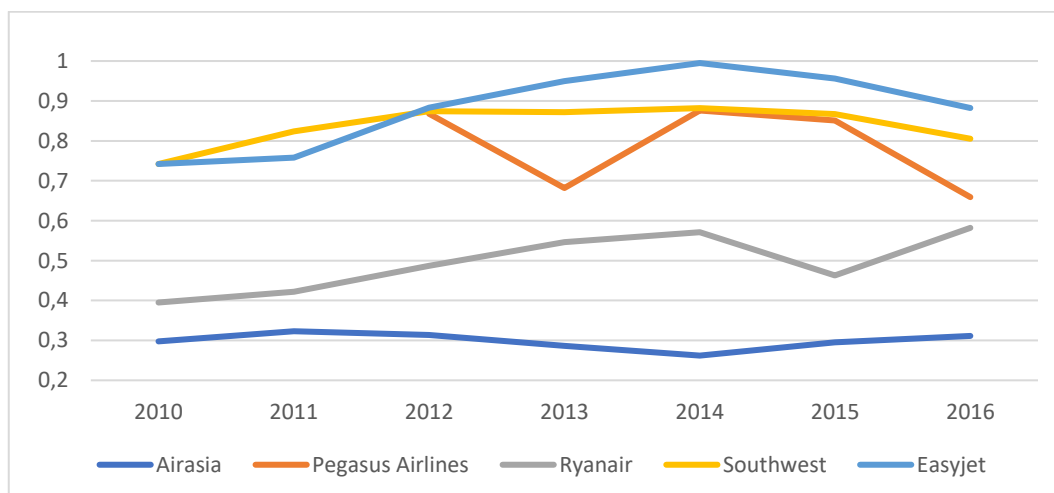


Figure 5.7: Total asset turnover ratios of LCC airline companies for the years between 2010 and 2016(Made by Author)

Like the fixed asset turnover ratio, Turkish Airlines' ratios have been reducing in recent years, but this time the difference between the company's ratio and the industry average is slightly higher than fixed asset turnover ratios. Both fixed and total asset turnover ratios reflect that the management of Turkish Airlines should make further examinations for asset management of the company. These recessions could be related to the ages of assets and inappropriate organisational strategies. Furthermore, the company should stop any possible expansion before the growth of these two ratios.

For Pegasus Airlines, the company is in a safer position in the industry, and the average value of its ratio (0.79) is above the sector average (0.68) in spite of the last reduction in 2016. When airline companies' ratios are below the 1.0, this issue reveals that the airline industry is not an industry in which companies benefit from their assets very efficiently.

Fixed Asset Turnover Ratio Analysis

This identifies the effectiveness of airline companies by comparing their fixed assets and sales revenue. By calculating this ratio, companies can see the depreciations of fixed assets. The productivity of fixed assets can also be compared with past performances of the same company. Figure 5.8 indicates the related ratios of FCC airline companies and then Figure 5.9 illustrates the LCC airline companies' fixed asset turnover ratios for the last seven years.

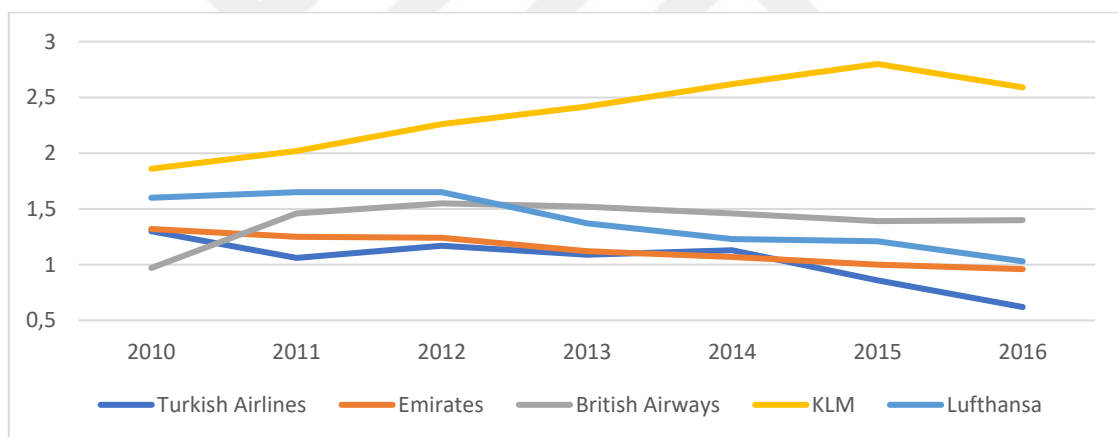


Figure 5.8: Fixed asset turnover ratios of FCC airline companies between 2010 and 2016 (Made by Author)

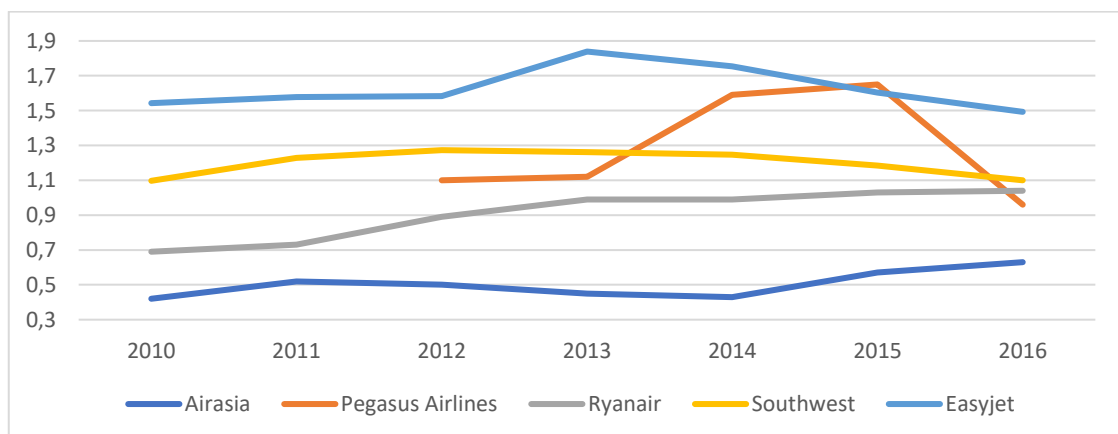


Figure 5.9: Fixed asset turnover ratios of LCC airline companies for the years between 2010 and 2016 (Made by Author)

For Turkish Airlines, the utilisation of its fixed assets has been decreasing over the last two years, and the value of the ratio which approximately equals 1.03 is the lowest level compared to other FCC airline companies. Despite this, there is not any optimum range which indicates the company efficient; the ratios show that the company's efficiency is not as satisfying as previous years and other companies' ratios. Hence, the managers of the company should monitor the results of fixed asset investments and try to increase the efficiency of such investments.

On the other hand, Pegasus Airlines relatively is in a good position compared to Turkish Airlines. In fact, the significant decrease in both companies depends on the political problems in Turkey during the year 2016. The average rate is approximately 1.28 for Pegasus Airlines, and this ratio is almost at the same level as the industry average which is equal to 1.30 within five years. In order to make a more comprehensive analysis of Pegasus Airlines, some further figures are required.

Generally both fixed and total asset turnover ratios measure the capability of airline firms to efficiently benefit from their assets ideally; companies which have high asset turnover ratios can conduct their businesses with fewer assets and thus, they relatively need less debt and equity to operate. However, as is stated in the literature, a company which prefers to outsource its aircraft might have lower assets in the balance sheet and this results in higher efficiency turnover ratios. In this study, every airline company has different efficiency ratios and more specifically Pegasus Airlines has greater efficiency ratios than Turkish airlines because of the ownership and leasing options. For this reason, it is almost certain that leasing or ownership of the aircrafts can directly affect companies' efficiency ratios among different airline companies in the industry.

5.4.3 Profitability Ratio Analysis

These ratios can be regarded as the most important ratios for airline companies in recent years. According to the reviewed literature, airline companies have not made enough profit in recent years due to excessive capacity growth and intense competition in the industry. Profitability ratios also show the position of airline companies in the markets regarding competitive advantage. If the company does not have any competitive advantage, it is expected that the ratios would be lower than those of other companies.

Net Profit Margin Ratio Analysis

In this study, the author used net profit figures of airline companies after deducting all taxes, expenses, interests and costs. The reason for the usage of net profit is that other profit types do not show the certain levels of profitability for airline companies due to their business models, asset preferences and accounting principles. Net profit margin ratio shows how much net income has remained from sales revenue after excluding all the costs. The higher ratios are good indicators for airline companies which can convert their sales into actual profit. Furthermore, the financing role of this ratio is important for companies and higher ratios mean that companies do not require financing options. Figures 5.10 and 5.11 illustrate the net profit margin ratios for FCC and LCC airline companies in the last seven years.

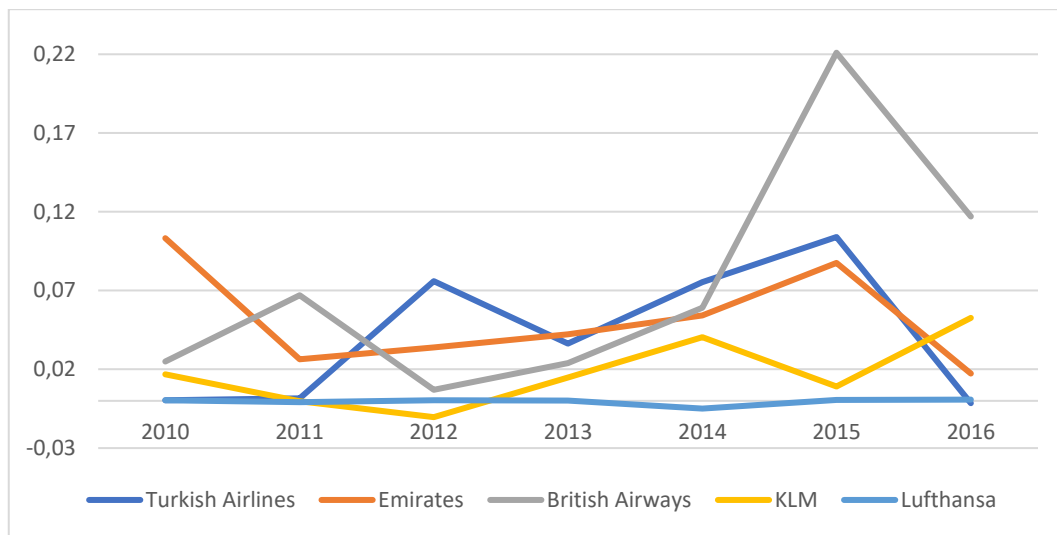


Figure 5.10: Profit margin ratios of FCC airline companies for the years between 2010 and 2016(Made by Author)

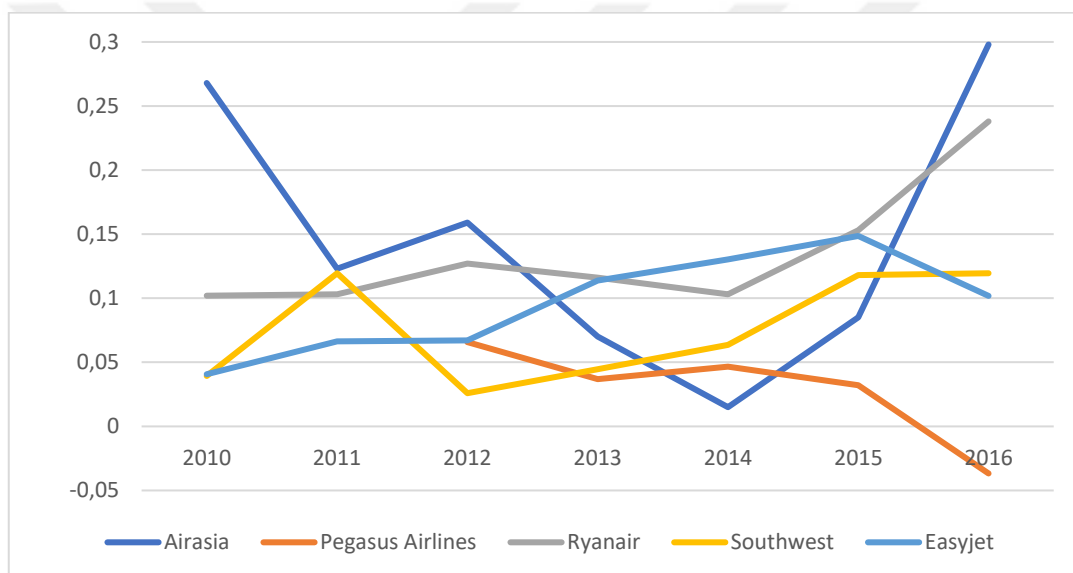


Figure 5.11: Profit margin ratios of LCC airline companies for the years between 2010 and 2016(Made by Author)

As mentioned in the literature, both FCC and LCC airline companies have been facing lower profitability in recent years. Naturally, LCC companies have lower ratios than FCC companies because of the lower pricing policy, and therefore, the comparison between the companies is strictly related to the segment of the airline company. However, in terms of the Turkish airlines market, both companies' ratios have been negatively affected because of the political issues in 2016.

For Turkish Airlines, the company's average ratio equals 4% and it indicates that the company gains just four dollars for every 100 dollars of sales. The average of the FCC companies is at the same level as Turkish Airlines and especially reduction in fuel prices has positively affected companies' profit levels. In order to increase net profit margin, Turkish Airlines should carefully analyse all expenses, costs and other outgoings and thus, possible cost reductions could contribute to increasing the net profit level.

Pegasus Airlines, which has the lowest net profit margin ratio in its business segment, shows that the difference between its ratio and the industry average is at a very high level. Despite the economic recovery in recent years around the world, the performance of both Turkish companies is not satisfactory regarding the net profit ratios. It can be said that this problem arises from economic circumstances in Turkey. Exchange rate fluctuations and relatively lower reduction in fuel prices are the leading reasons for these profit reductions.

For this reason, especially creditors and investors can monitor these ratios to learn how effectively airline companies can convert their sales into net profit. This is because, investors want to make sure that the company distributes higher dividends and creditors follow this ratio to get their loans back from the companies which have enough net profits. Furthermore, other users can also mention this ratio to find out that the company is running efficiently. For example, a low profit margin indicates too many expenses and too little revenue. As a result, regarding the Turkish airline companies, both companies should be aware of the balance between their expenses and revenues especially for the last year.

Return on Equities (ROE) Ratio Analysis

This ratio is related to returns of equities in the companies, and the ratio shows the how the firms manage owners' or shareholders' money. Investors and shareholders can compare the average performance of their investments with other alternative investment options. Furthermore, the revenue trend for companies can be revealed, through increases, constants or decreases. Figures 5.12 and 5.13 illustrate the ROE ratios of selected airline companies by considering their business segments.

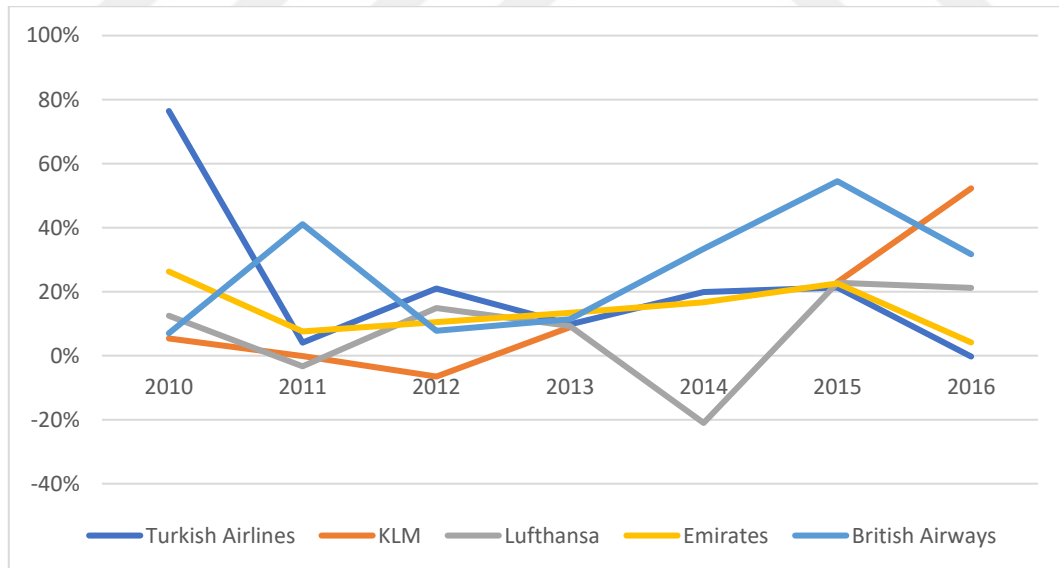


Figure 5.12: Return on equity ratios of FCC airline companies for the years between 2010 and 2016(Made by Author)

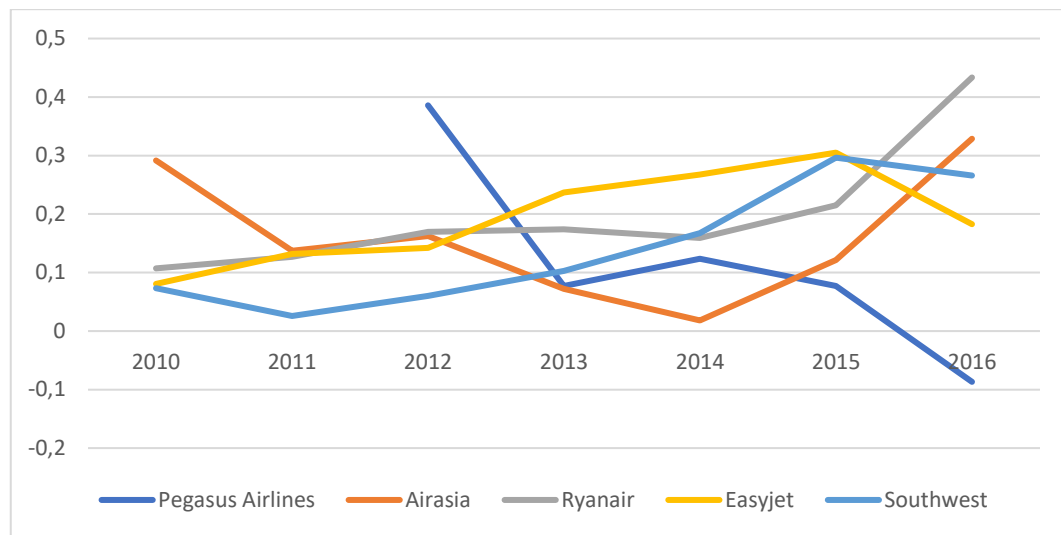


Figure 5.13: Return on equity ratios of LCC airline companies for the years between 2010 and 2016(Made by Author)

As can be seen from both graphs, Turkish airline companies are in lower positions than other companies. For Turkish Airlines, its status is relatively stronger than Pegasus Airlines, and the company's ratio is almost equal to zero. Despite the negative outlook for the year 2016, it is forecast that the ratio will increase during 2017 because of the growth of foreign airline passengers and more stable changes in exchange rates. It can be seen that the average reductions of ROE ratios for Emirates, and Turkish Airlines are at the same level due to civil wars and political unrest in the Middle Eastern countries. On the other hand, the gap between Pegasus Airlines' ratio and the industry average approximately equalled 30% in 2016. Like Turkish Airlines, the company also expects to recover its losses in 2017 and thus, the company can reach the average level (9%) for the last three years.

In fact, the ROE ratio is a profitability ratio from the investors' point of view. Therefore, investors would like to see higher ROE ratios since this situation indicates that the firm is using investors' money effectively and it also attracts more investors. In this study, investors who invest their money in Turkish companies would be unhappy due to results of lower ROE ratios.

5.4.4 Solvency Ratio Analysis

In contrast to the liquidity ratios, these ratios examine the abilities of companies to meet long-term obligations. Managers or other analysts could benefit from these ratios to evaluate the financial health of the firms. Solvency ratios are also useful indicators to show the management of equities and debts for companies. In this study, there are two solvency ratios examined for the performance of Turkish airline companies.

Debt to Assets Ratio Analysis

The first ratio identifies the relationship between long-term debts and assets. If a company covers all their liabilities by using their assets, it is expected that principal and interest payments do not take a significant amount of money from a company's cash flow. Hence, the ratio will be lower, and it means that the firm has lower risks. On the other hand, if the ratio is higher, it indicates that the company does not cover its liabilities with assets and needs more money to meet interest and other payments.

Reviewed literature suggests that debt to asset ratios should be compared to companies' previous ratios or other companies' ratios to get meaningful results. Figure 5.14 firstly shows the debt to assets ratios of FCC airline companies between 2010 and 2016 and, subsequently, Figure 5.15 reflects the ratios of LCC airline companies for the same period.

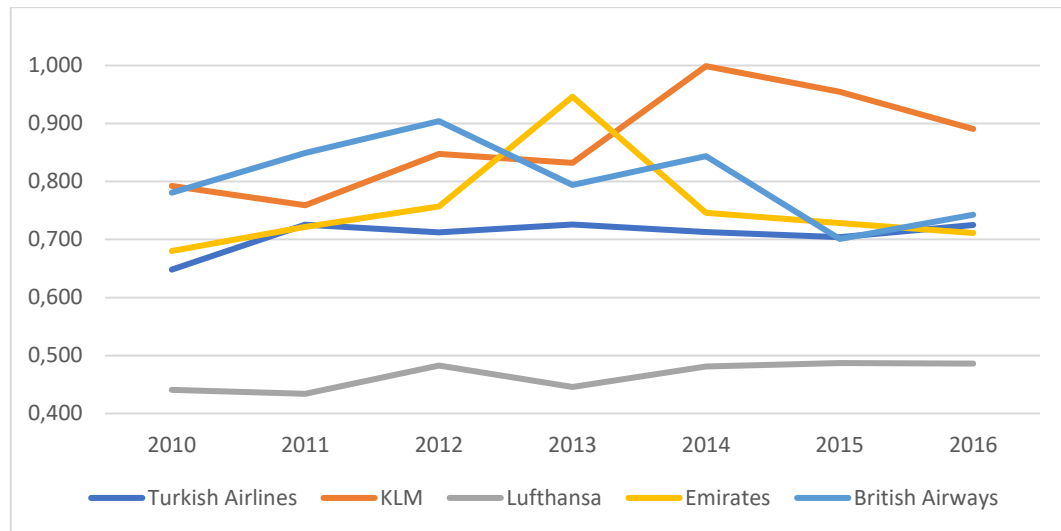


Figure 5.14: Debt to asset ratios of FCC airline companies between 2010 and 2016(Made by Author)

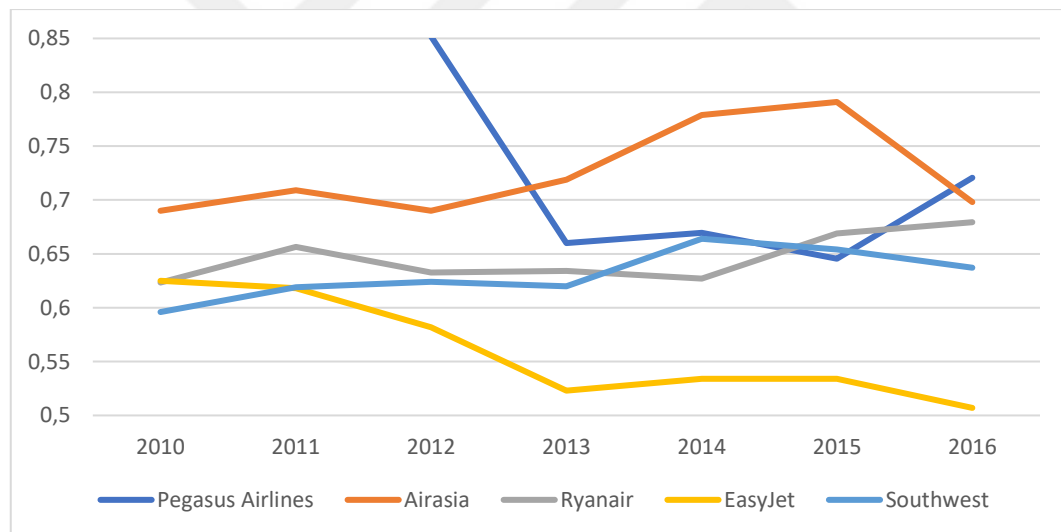


Figure 5.15: Debt to asset ratios of LCC airline companies between 2010 and 2016(Made by Author)

For Turkish Airlines, it seems that the ratio has not shown any significant change in recent years, and the average of the ratio (0.70) is slightly lower than the industry average (0.72). Moreover, this ratio means that the company will finance 70% of its debts by using all assets and the other debts must be funded by other financing instruments. Therefore, the company has a higher degree of leverage and this situation leads to increasing the vulnerability of the firm against the recession. The ratio of Pegasus Airlines (0.71) is greater than the industry average (0.65) for the last five years, and this comparison reveals that the company should either decrease the total liabilities or increase its total assets to maintain its activities for the future easily. Finally, it can be said that the financial risk profile of Turkish airline companies has deteriorated in recent years and managers should take some precautions to improve this profile.

Debt to Equity Ratio Analysis

This ratio is also described as a “gearing” ratio for companies. It basically reflects the comparison of all a company's liabilities and equities. In order to display the net effects of borrowings, cash and cash equivalents should be excluded from the total borrowings. Higher ratios indicate that the company is financing its activities by borrowing loans and it might create some problems for the future. On the other hand, lower ratios reflect that the company can expand its business without any external borrowing and its strength is higher against the business risks or other problems in the economy. Figures 5.16 and 5.17 will illustrate the gearing level of FCC and LCC companies in the last seven years.

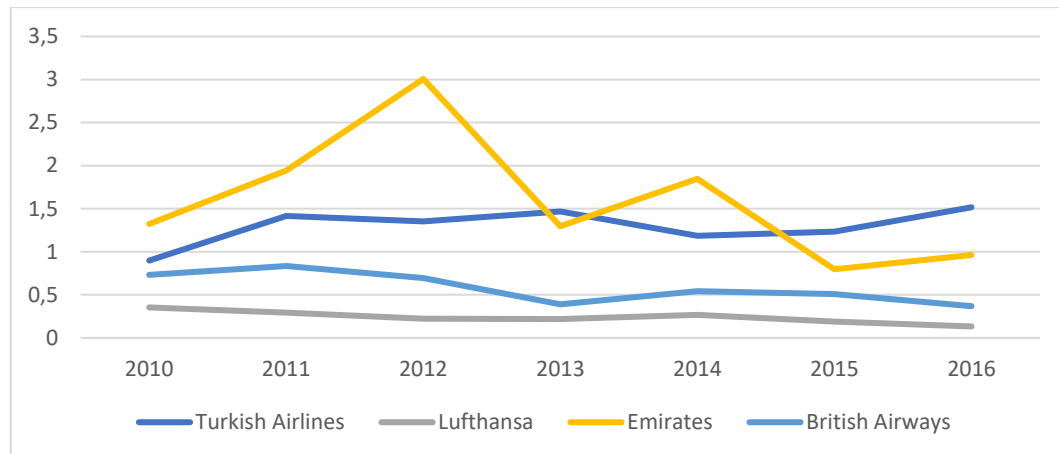


Figure 5.16: Debt to equity ratios of FCC airline companies between 2010 and 2016(Made by Author)

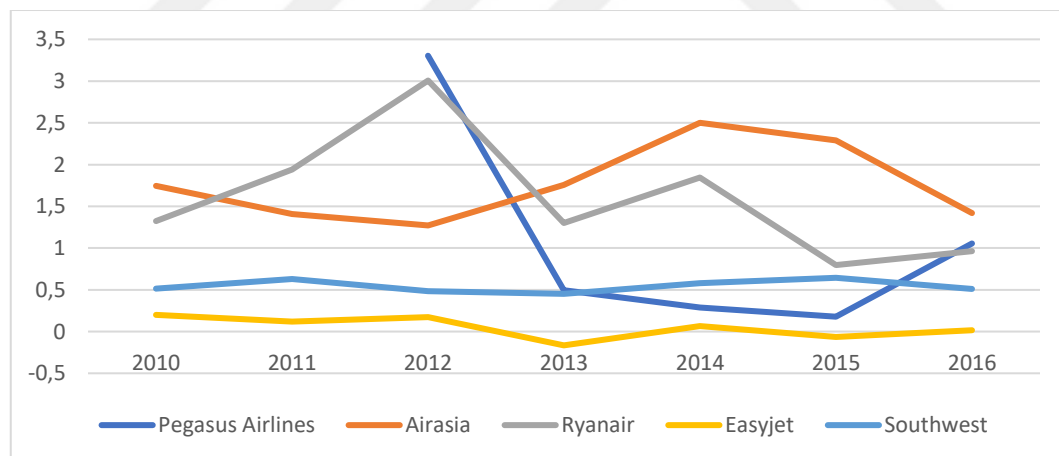


Figure 5.17: Debt to equity ratios of LCC airline companies between 2010 and 2016(Made by Author)

Regarding the FCC airline companies, Turkish Airlines has the highest ratio in the last years, and the average value (1.29) is above the industry average (0.95) as well. Reviewed literature suggests that airline companies should also benefit from lower borrowing facilities to expand their businesses and, therefore, this ratio indicates that the firm uses both its equities and these borrowing facilities equally. Furthermore, airline companies tend to use long-term debt options to finance their expensive aircrafts. Regarding Turkish Airlines, its relatively higher ratio than the rest of the industry indicates a risky positions for creditors. Hence, both potential creditors and investors do not desire to fund the company's operations with their money.

For Pegasus Airlines, the ratio equals 1.06 despite the rise in the last year and it is slightly higher than the average value for its segment. In the Turkish airline market, Pegasus has a stronger position than Turkish Airlines and this situation implies a more financially stable business for Pegasus Airlines. Therefore, it can be considered less risky than Turkish Airlines. Furthermore, according to the literature, higher gearing ratios represent greater risks for companies and even a short period of low profits and significant growth in interest rates could lead to bankruptcy for both Turkish airline companies. In order to decrease their gearing ratios, both companies can firstly decrease their liabilities or increase their inputs to equity funds. This policy will enhance their stability for the long term.

5.4.5 Airline Industry Specific Ratio Analysis

As has been mentioned in the previous chapter, there are also some specific ratios which can be used only in this industry. By using these ratios, companies or analysts can evaluate different aspects of airline firms. Unit costs and revenues per unit can be monitored with the help of these ratios. In this study, passenger load factor, passenger revenue per kilometres and costs available per kilometres for airline companies is examined.

Load Factor Analysis

It is important that passengers are essential income sources for airline companies and there is a significant difference between a fully occupied flight and half-loaded flight regarding the profitability of the airline. In fact, this ratio can identify the capacity usage of airline companies in terms of whether it is efficient or not. However, it is not an adequate ratio to show all operational efficiency regardless of revenue and the cost structures of airline firms. Figures 5.18 and 5.19 show the load factors of FCC and LCC airline companies subsequently.

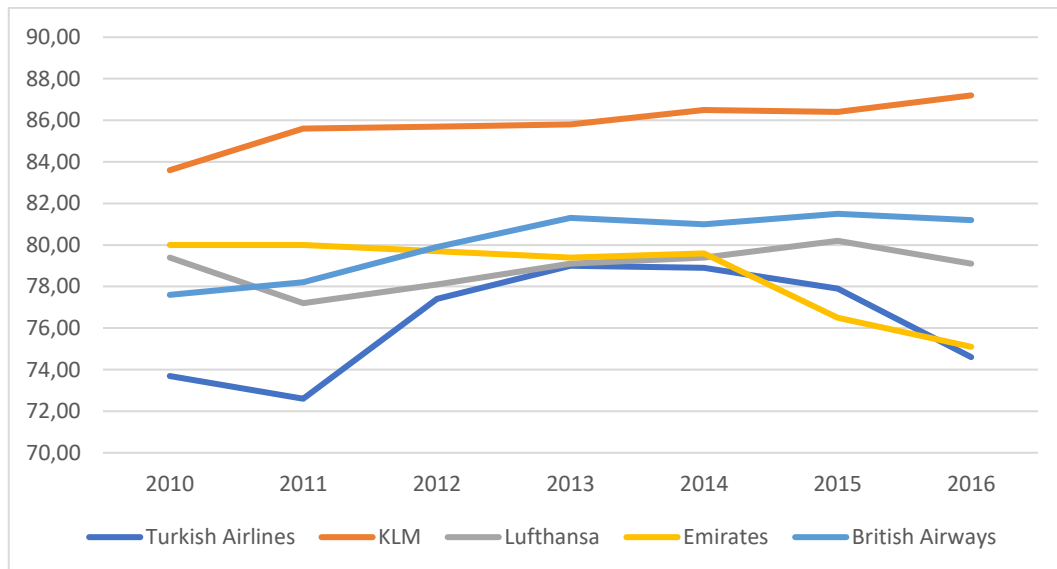


Figure 5.18: Load factors of FCC airline companies for the years between 2010 and 2016(Made by Author)

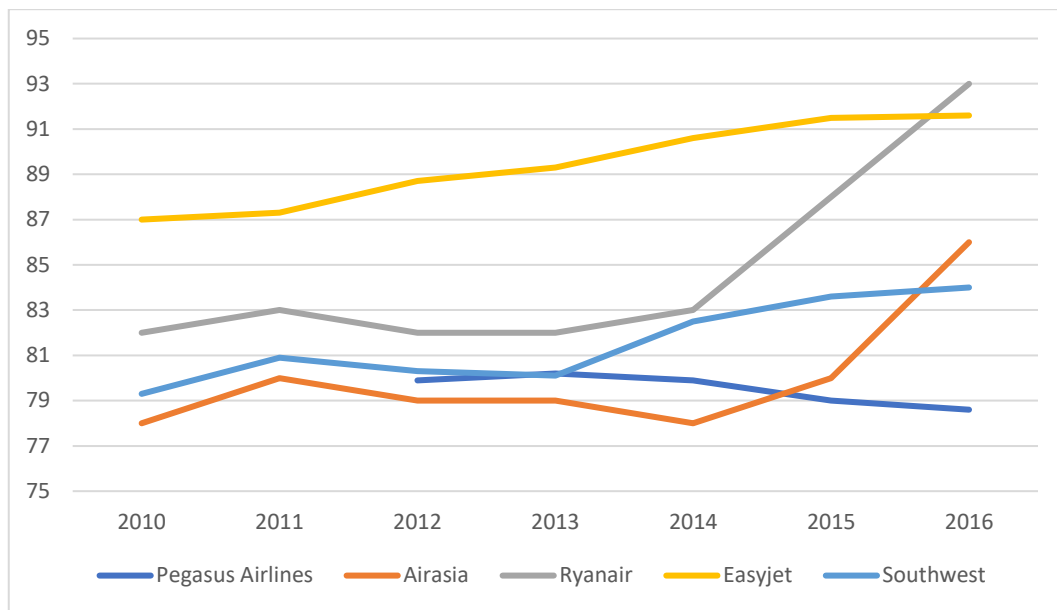


Figure 5.19: Load factors of LCC airline companies for the years between 2010 and 2016(Made by Author)

At first sight, it can be seen that the load factors for LCC companies are higher than FCC companies' load factors for the last seven years. The average of the load factors is equal to 79.95% for FCC airline companies, and Turkish Airlines' ratio reaches approximately 76% due to decreasing trends in the last two years. However, the company should attract customers' attention to exceed the 80% level which is the important grade for profitability. For this reason, there are some strategies which could help to increase overall load factor in Turkish Airlines. For example, an advertisement entitled "Drogba vs. Messi: #EpicFood" attracted passengers' attention to the quality of the on-board services and thus, some passengers could be persuaded to pay extra for this quality. Eventually, this advertisement contributed to an increase in the overall load factor for the airline.

While LCC companies' load factors have been increasing in recent years, the ratio of Pegasus Airlines has been reducing over the last two years. The company's load factor is approaching the 80% level, but still, the ratio is below the average of LCC companies' load factors (83%). Therefore, it might be beneficial for Pegasus Airlines to develop additional strategies to stop this reduction. Adding new routes, increasing the service qualities on board and extending the domestic and international destinations might help to increase it.

Revenue Per Available Seat Kilometres (RASK) Ratio Analysis

Another industry specific ratio is related to airline companies' revenue structures. This ratio shows how much revenue airline companies are generating for each seat in their capacities. Ancillary and cargo revenues should be excluded from consideration for better results. Higher ratios are good indicators for airline companies and show the operating efficiency of airline firms. Figure 5.20 and Figure 5.21 illustrate the RASK ratios of FCC and LCC airline companies for the years between 2010 and 2016.

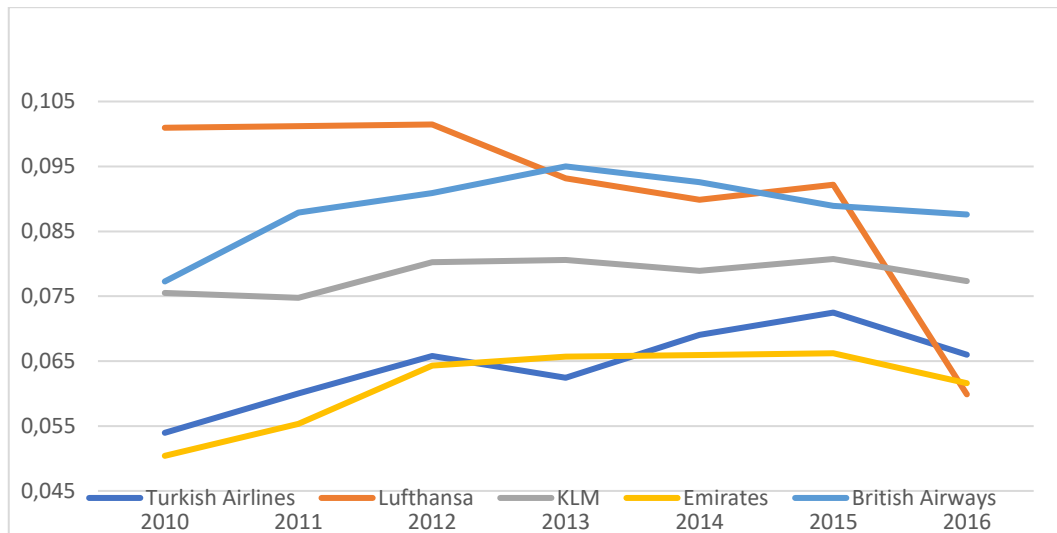


Figure 5.20: RASK ratios of FCC airline companies for the years between 2010 and 2016(Made by Author)

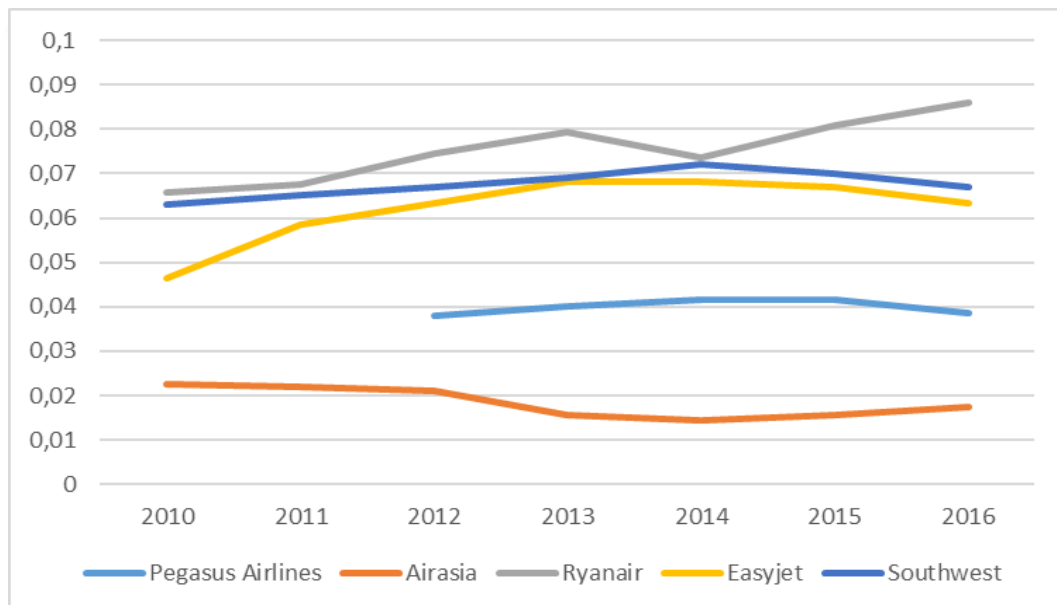


Figure 5.21: RASK ratios of LCC airline companies for the years between 2010 and 2016(Made by Author)

For Turkish Airlines, the average value of the ratio is 0.65 in spite of the decrease in the last year. Apart from the other ratios, this reduction does not depend on the political problems in 2016, and, as is seen from the first graph, the revenues of five FCC companies have been reduced over the last year. Furthermore, Turkish Airlines should develop alternative strategies which can develop the revenue generation of the company. On the other hand, RASK ratios of LCC companies are lower than FCC airline firms since the business model for LCC companies can generate revenues from both passenger and ancillary revenues equally. For this reason, Pegasus Airlines' RASK ratio is significantly lower than Turkish Airlines'. Furthermore, the company has the second lowest RASK ratio in the LCC segment. According to the last investor briefing, it seems that the firm has developed additional strategies to improve its ratio. These strategies are related to applying dynamic pricing strategies to the company's revenues.

Cost Per Available Seat Kilometres (CASK) Ratio Analysis

During the analysis of airline companies' financial performances, the cost structures and unit costs of each kilometre should be taken into consideration for better analyses. In terms of the cost structures of the airline firms, there are many types of cost items and airline companies should focus on each segment in their cost structures and they should maximise the efficiency of these segments. In the context of cost structures, some companies have competitive advantages because of their input costs. For example, Emirates can enjoy the lowest fuel costs of all the FCC companies because it is located in the United Arab Emirates or AirAsia can take advantage of lower employee costs in the Asian countries. Figures 5.22 and 5.23 will show the CASK ratios for FCC and LCC airline companies.

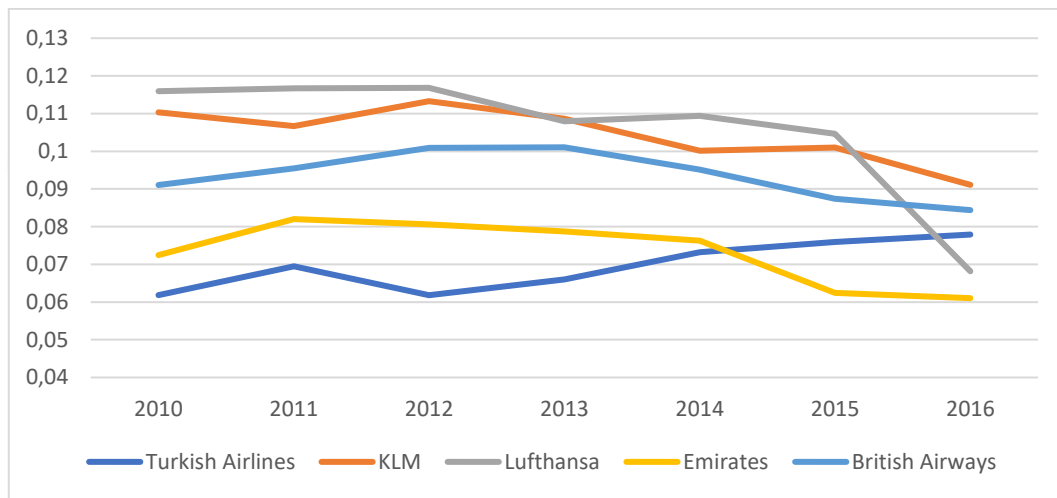


Figure 5.22: CASK ratios of FCC airline companies for the years between 2010 and 2016(Made by Author)

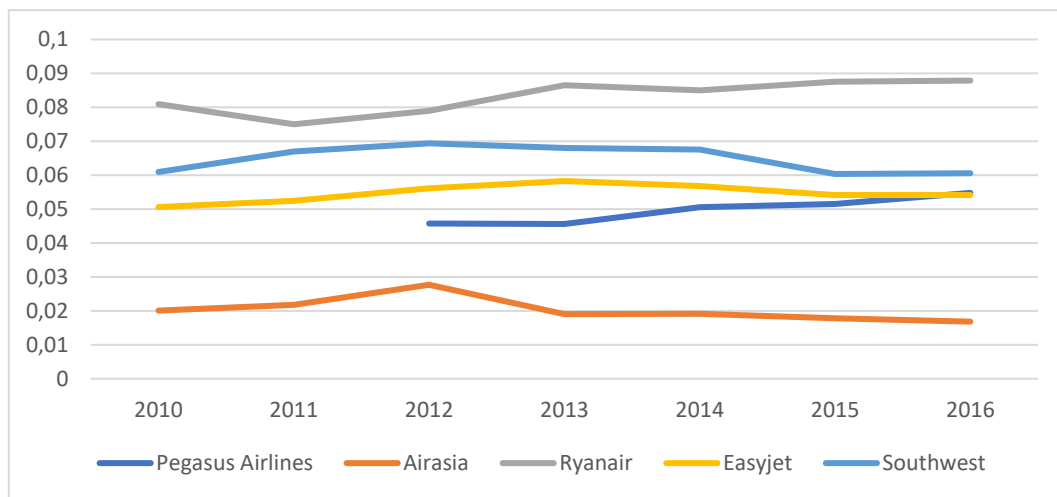


Figure 5.23: CASK ratios of FCC airline companies for the years between 2010 and 2016(Made by Author)

As is illustrated in the first graph, Turkish Airlines has one of the lowest cost ratios among the selected countries despite the fluctuation in exchange rates in the Turkish economy. According to the average value of the CASK ratios, it has the second lowest cost structure. This issue is a good indicator of the company's cost efficiency.

Pegasus Airlines has similar results to Turkish Airlines, and it has the second lowest CASK ratio in the LCC segment. In spite of the slight increase in the last year, according to the interview with Pegasus Airlines, the company attaches significant importance to cost efficiency. Replacing aircrafts, using alternative leasing options for new aircraft are some alternative plans to increase the cost efficiency of Pegasus Airlines.

Non-Fuel Cost Per Available Seat Kilometres (CASK) Ratio Analysis

During the calculation of CASK ratios, airline companies take different calculations into account, and fuel prices are generally the biggest factor in cost calculations for airline companies. However, oil prices are an uncontrollable factor, and the management of companies cannot control the volatility of the prices. For this reason, this ratio excludes the fuel costs and only focuses on other expenses. Figure 5.24 and Figure 5.25 will subsequently show the non-fuel CASK ratios for FCC and LCC companies between the years 2010 and 2016.

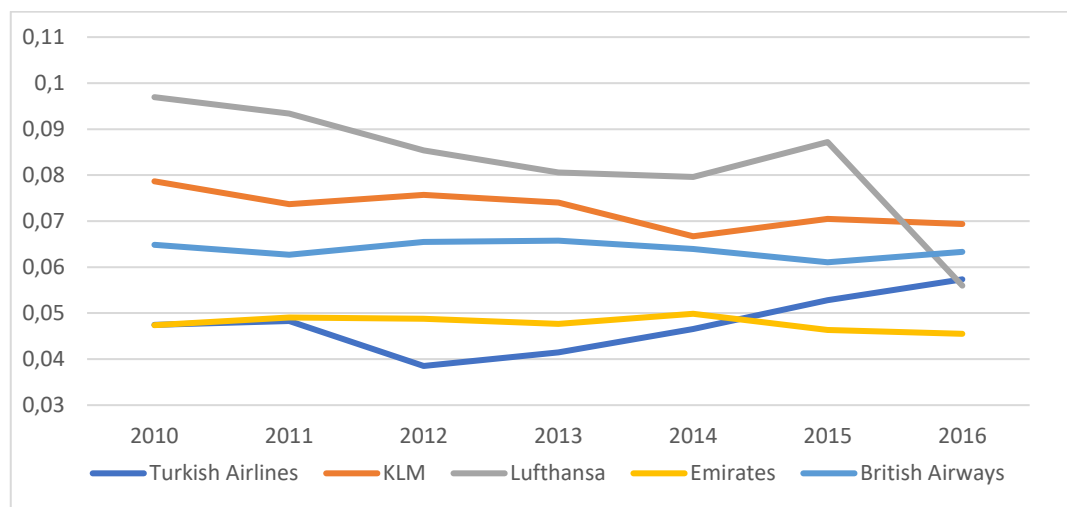


Figure 5.24: Non-fuel CASK ratios of FCC airline companies for the years between 2010 and 2016(Made by Author)

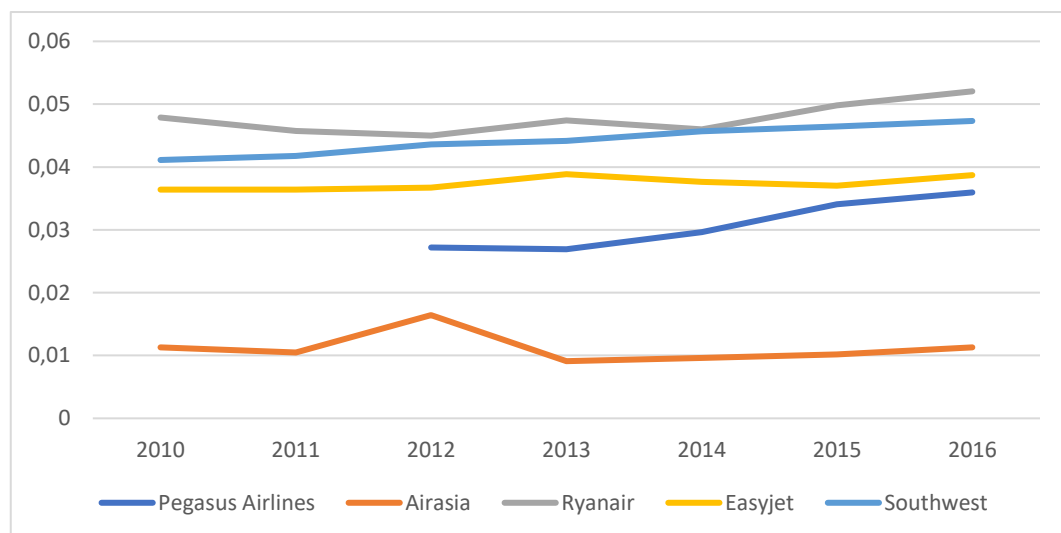


Figure 5.25: Non-fuel CASK ratios of LCC airline companies for the years between 2010 and 2016(Made by Author)

The first graph indicates that Turkish Airlines has one of the lowest non-fuel cost ratios from among the companies. However, it can also be seen that there is an increasing trend in other operating costs. This trend can be accepted as normal due to the company's growth policy which includes the expansion of some destinations and aircraft. Therefore, this expansion also increases related costs such as ground services, maintenance expenses and aircraft leasing costs. This situation is also relevant to Pegasus Airlines, and the company has the second lowest non-fuel cost ratio in the LCC segment. It seems that action plans which have been made by the management of Pegasus are beneficial to increasing the cost efficiency of the company.

In spite of the contributions of both CASK and non-fuel CASK ratios, there are some different ideas in the literature. These objections are related to calculation differences in available seat kilometres which are the denominators for CASK ratios. Different flight networks, various accounting policies and the length of flight routes might significantly affect ASK calculations. Another factor relates to seat configuration, and if companies have wide-body aircrafts rather than narrow types of aircraft, they can face higher amounts of ASKs.

5.5 Conclusion

Along with all the sections of this chapter, findings from the literature and empirical research have been used, and the importance of financial statements & financial analysis were explained in the first themes. After that, the author explained the usage of financial ratios and then the financial status of the Turkish airline industry was analysed by using fourteen different financial ratios. By the end of the chapter, some further recommendations have been made for Turkish Airline companies with the help of results from the financial ratio analysis. Hence, the third objective of the study has been completed successfully.

6 Conclusion

In this dissertation, the author has aimed to fill the literature gap which relates to the importance of financial ratio analysis in the Turkish airline industry and evaluate the performance of two companies, Turkish Airlines and Pegasus Airlines. Hence, the author identified the main research question “How could financial ratio analysis help Turkish Airline companies to evaluate their financial status in global markets?”

In order to answer the main research question of the study, the following sub-research objectives were used as checkpoints for the study:

- ✓ Reviewing the existing literature, to develop a conceptual framework which focuses on usage of financial ratios in airline companies.
 - Explaining the importance of financial ratio analysis for airline companies
 - Selecting appropriate ratios for financial analysis and explaining the usage of these ratios in the airline industry
- ✓ By using primary data to revise and validate the framework, calculating and comparing the financial ratios of selected global airline firms with the help of secondary data which consist of companies' financial figures.
- ✓ To identify the strengths and weaknesses of Turkish airline companies by comparing their financial ratios with other airline firms and producing a set of recommendations for Pegasus Airlines and Turkish Airlines.

In this chapter, the author will firstly make further suggestions for Turkish airline companies and then the achievement of sub-objectives of the study will be reviewed. Secondly, the limitation of the project will be discussed. Finally, recommendations for further suggestions will be mentioned at the end of this chapter. Figure 6.1 illustrates the structure of this chapter.

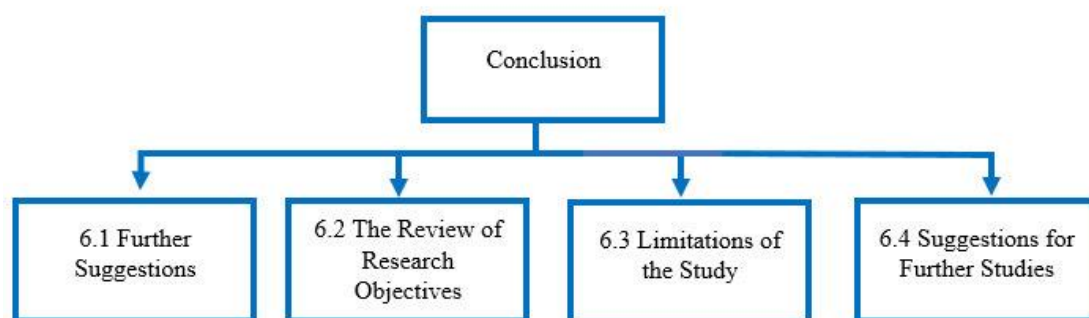


Figure 6.1: The structure of the conclusion chapter (Made By Author)

6.1 Further Suggestions for Pegasus Airlines and Turkish Airlines

As has been progressively stated in the thesis, one of the sub-purposes of this study is to identify the strengths and weaknesses of the Turkish airline companies and to make some suggestions for these companies. In order to produce some recommendations for Pegasus Airlines and Turkish Airlines, the author has benefited from the findings in the discussion section and suggestions will be divided into five different segments including liquidity, profitability, efficiency, activity and airline specific ratios.

Liquidity Aspect: The analysis has demonstrated that both Turkish Airlines and Pegasus Airlines are in a good position regarding the current ratios which measure the balance between current assets and current liabilities. However, the quick ratio of Turkish Airlines is relatively lower than both Pegasus Airlines and the industry average ratio. Hence, the company should obtain more liquid assets such as cash and cash equivalents, short term marketable securities rather than non-liquid assets inventory or prepaid expenses. In contrast, the average quick ratio of Pegasus Airlines is higher than industry averages and this means that the company can meet short-term obligations more easily than other airlines. Furthermore, managers of the company can expand their businesses by increasing the destination points, extending the flight networks or the number of aeroplanes.

Efficiency Aspect: In terms of the efficiency aspect, in other words, asset management, Pegasus Airlines is stronger than Turkish Airlines. This situation arises from ownership of aircraft rather than using a leasing method, and thus, it can be said that using a rental method for acquisition of aircraft is an efficient way to achieve better asset management. Otherwise, having own aircraft can not only mean the inefficient asset management, but it also leads to extra costs such as maintenance, depreciation. Furthermore, airlines companies need more money to acquire their own aircrafts, and thus, additional interest payments might occur at the same time.

Profitability Aspect: In this study, both empirical and theoretical research shows that all airline companies (including Turkish companies) are facing significantly low profit levels in spite of the growth in recent years in the industry; both Turkish companies have lower ratios than industry averages and they should develop additional strategies for increasing revenue and decreasing costs. For example, increasing the non-ticket revenues (ancillary revenues), such as baggage fees, on-board service revenues and travel retail revenues, might contribute to both Turkish companies. In terms of cutting the costs, employee and fuel costs are substantial segments for airline companies and, therefore, Turkish airline companies should focus on these segments by retiring old, inefficient aircraft, using fuel hedging contracts, using digital technology for ground services.

Solvency Aspect: Both Turkish companies have higher gearing ratios than other global airline firms which means that they are in a relatively safer position in terms of meeting long-term obligations. However, both companies can improve their gearing positions by using the leasing method to acquire new aircraft because the literature has demonstrated that airline companies use long-term credits to obtain new aircraft. In addition, lower borrowing facilities might help to increase their ratios as well.

Airline Specific Ratio Analysis: In fact these ratios have examined the revenue and cost positions of airline companies in the airline industry. The results of the study show that both Turkish companies should increase their passenger revenues in order to grow their shares in the global industry. Increasing the number of destinations and flight frequency and attracting more international passenger attention for their service quality are some suggestions for revenue growth.

In the study, non-fuel cost analysis shows that Turkish airline companies are at the same level and their status is more hopeful than other airline companies. However, companies should still achieve the optimum level and for this reason companies should benefit from revenue growth and cost reduction strategies which have been mentioned in the profitability aspect. In addition to these policies, airline companies should seek additional ways to decrease operational costs. For example, using cheaper airports, re-scheduling their flights for seasonal conditions and decreasing the on board costs might be useful strategies. On the other hand, fuel cost analysis demonstrates that fuel costs are substantial expenses for Turkish airline companies like other global airline firms. Furthermore, fluctuations in foreign exchange rates in Turkey are also increasing these costs. In order to overcome these problems, fuel and foreign exchange hedging contracts could be beneficial to mitigate the risks of fluctuations in both fuel and currency prices in the future.

As a result of the all financial ratio analyses have shown following outcomes for two Turkish airline companies separately;

Turkish Airlines is in a good position for both liquidity and solvency aspect which means that Turkish Airlines can meet short and long-term obligations easier than the other global airline companies. However, the company has relatively lower ratios regarding the profitability, efficiency and industry-specific aspects. Ultimately, those three issues have emerged that the company should improve its asset management and increase its profit margin by decreasing the costs or increasing the revenues.

As Turkish Airlines, Pegasus Airlines is also in a stronger position for liquidity ratios. Moreover, the company also has higher ratios for asset management comparing the other ratios. In order to develop profitability and industry-specific ratios, the company should focus on increasing the ancillary revenues and decreasing the operational costs. Pegasus Airlines has also been using some effective strategies to minimise the fuel and foreign exchange risks and eventually, the company would benefit from these policies.

6.2 The Review of Research Objectives

In this study, the achievement of the first objective set was completed with the help of the literature review. Firstly, the reviewed literature revealed the importance of financial ratio analysis in financial statements for companies and then the usage of financial ratios was emphasised in this section. Furthermore, the most appropriate financial ratios were selected and explained at the end of the section by considering the benefits and limitations of the ratio analysis. Finally, the conceptual framework (see Figure 2.6) helped to show the structure of the study.

The second objective was completed in different chapters. Firstly, the financial ratios of selected companies were presented in the results and analysis section. After that, these ratios were compared with global airline companies' financial ratios during the discussion section. Furthermore, the interview contributed to revision and validation of the theoretical framework by adding an industry perspective of the study.

The last objective was also completed in both discussion and conclusion chapters. First of all, comparing the financial ratios has also provided information on companies' strengths and vulnerabilities among the other companies. Furthermore, some suggestions have been made in the conclusion section to develop Turkish companies' financial performance within the global airline market.

As a result, the main aim of the research has also been accomplished with the achievement of these three objectives. The financial ratio analysis has showed the strengths and weaknesses of Turkish airline companies by comparing their results with the industry average and other global companies. Furthermore, some recommendations would also help Turkish Airlines and Pegasus Airlines to develop their positions in global markets despite the several limitations of the study.

6.3 Limitations of the Study

Apart from the benefits of the study to the Turkish airline industry and the current literature, there are several limitations of the thesis as well. The first limitation is related to the usage of the financial ratios. Among the hundreds of financial ratios, each ratio could help to identify the different aspects regarding the financial status of companies. In this thesis, the author selected fourteen relevant ratios according to their aspects such as liquidity, solvency or efficiency. Therefore, these ratios are limited to identifying some points in the financial management of the company. Furthermore, some ratios need to be compared to industry average ratios and the author calculated the industry averages according to ten different airline companies' ratios because of the limited time and condensed context. For this reason, the industry average may not reflect the most accurate value.

In the dissertation, the author focused on two companies which have a 75% share of the Turkish airline market, but still there are eight different companies and their financial status should also have been examined in order to reach more conclusive results for Turkish airline industry.

Moreover, the study examined the period between 2010 and 2016 to evaluate the most recent conditions for companies. However, literature suggests that analysts should not consider the years which involve unexpected events. The author also ignored the accounting period and rules differences and economic conditions of countries due to the limited availability of time. On the other hand, this factor could also impact negatively on the ratio analysis results.

In fact, the main limitations of the research arose from the primary data collection. Despite the three planned interviews with managers of Turkish airline companies, there was only one interview conducted with Pegasus Airlines. Turkish Airlines rejected the offer to take part in interviews due to its confidentiality policy. This limitation meant that the proper framework which comprehensively combines theoretical and empirical research in the study was not properly developed. Hence, the validity of the research was damaged due to an insufficient number of interviews.

6.4 Suggestions for Further Studies

As has already been stated in the limitation section, there are many ratio types that can evaluate the financial performance of companies and each ratio can examine different perspectives on airline companies. In addition, some financial ratios should be compared industry average ratios during the ratio analysis. For this reason, analysing more ratios and increasing the number of airline companies could help more meaningful results to be reached than was possible in this study.

In addition, different economic conditions, business strategies, unexpected events and different accounting rules could affect the results of the financial ratios either negatively or positively. For this reason, a more comprehensive study should take all these factors into consideration and present these factors during the analysis of financial ratios.

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Appendices

Appendix-A Ethical Approval Form

Dear Mr Harmanci,

Warwick University ID Number: 1691309

Thank you for submitting your Supervisor's Delegated Approval form to the FT Course Office for the project: How the interpretation and comparison between Turkish Airlines and global airline firm's financial ratios could help airline companies to develop better strategies in international markets?.

Your reference number is REGO-2017-WMG-0184.

You now have the appropriate approval in place to begin your study.

Please ensure you insert a copy of this email into the appendices of your project.

Best Wishes

Alexandra Jackson

WMG Full-Time MSc Course Office

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Appendix- B Interview Questionnaire

- 1- Is it fine to share all interview transcripts as appendices in this study? Are there any other restrictions for your company?
- 2- What are the main characteristic features of the financial management in the airline industry?
- 3- Could you tell me about the importance of the financial analysis for airline companies?
Which analysis techniques are being used during the financial analysis process?
- 4- What are the stages of the financial analysis in your company? Which financial analysis technique is more beneficial for airline companies and more specifically to your firm?
- 5- What about the use of financial ratios; does the company benefit from financial ratios during the analysis of financial figures?
- 6- Which financial ratios are being used in the financial analysis process for airline companies? What are the advantages and limitations of using these financial ratios in the airline industry?
- 7- According to the literature, liquidity, solvency and profitability are three important ratios for airline companies. To what extent do you agree or disagree with this statement?
- 8- What are the roles of financial ratios in the interpretation process? After analysing the financial figures, do you compare your results with other airline companies around the world?
- 9- What are the advantages and shortcomings of the Turkish airline firms in the global economy? Do you think the interpretation of financial figures can contribute to increasing their performance? If so could you explain it briefly?
- 10- Could you express about the company, Pegasus Airlines/ Turkish Airlines, what are the short and long-term plans of the company?
- 11- Could you please explain briefly why these ratios are more important for the company? How could the interpretation of ratios affect the company's strategic plans?
- 12- How can financial analysis help to accomplish the company's objectives? Do you think that financial ratios contribute to the decision-making process in the company e.g. investment decisions, developing the business plan, etc.?
- 13- What are the further suggestions to improve the company's financial indicators? Can these suggestions be valid for all airline companies or not?
- 14- After all data collection, it may require to ask further questions about the topic? Could I ask additional questions after this interview?

Appendix-C Turkish Airlines Annual Reports

(Convenience Translation of Report And Financial Statements Originally Issued in Turkish)

TÜRK HAVA YOLLARI A.O. AND ITS SUBSIDIARY
AUDITED CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 31 DECEMBER 2010
 (All amounts are expressed in Turkish Lira (TL) unless otherwise stated .)

		1 January- 31 December 2010	1 January- 31 December 2009
	Notes		
Sales Revenues	28	8.422.771.140	7.035.882.903
Cost of Sales (-)	28	(6.609.264.529)	(5.200.371.472)
GROSS PROFIT		1.813.506.611	1.835.511.431
Marketing, Selling and Distribution Expenses (-)	29	(999.770.863)	(806.503.413)
Administrative Expenses (-)	29	(352.872.407)	(266.173.785)
Other Operating Income	31	149.669.257	91.136.104
Other Operating Expenses (-)	31	(128.343.992)	(130.079.895)
OPERATING PROFIT		482.188.606	723.890.442
Share of Investments Profit / Loss Accounted for			
Equity Method	16	(36.800.970)	12.813.703
Financial Income	32	72.851.263	172.982.144
Financial Expenses (-)	33	(152.549.546)	(172.708.672)
PROFIT BEFORE TAXES		365.689.353	736.977.617
Tax Expense (-)		(79.245.992)	(177.901.337)
Current Tax Expense (-)	35	(10.387.347)	(104.523.367)
Deferred Tax Expense (-)	35	(68.858.645)	(73.377.970)
PROFIT FOR THE PERIOD		286.443.361	559.076.280
OTHER COMPREHENSIVE INCOME / (EXPENSE)			
Change in Currency Translation Differences		(1.051.704)	181.933
Change in Cash Flow Hedge Fund		21.418.876	(2.189.161)
Tax (Expense) / Income on Items in			
Other Comprehensive Income		(4.283.775)	437.832
OTHER COMPREHENSIVE INCOME / (EXPENSE) (AFTER TAX)		16.083.397	(1.569.396)
TOTAL COMPREHENSIVE INCOME		302.526.758	557.506.884
Earnings Per Share (Kr)	36	0,29	0,56

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of Report and Financial Statements Originally Issued in Turkish)

TÜRK HAVA YOLLARI A.O. AND ITS SUBSIDIARY
AUDITED CONSOLIDATED BALANCE SHEET
AS OF 31 DECEMBER 2010

(All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

ASSETS	Notes	31 December 2010	31 December 2009
Current Assets		3.491.777.500	2.798.163.528
Cash and cash equivalents	6	813.936.552	1.090.463.875
Financial assets	7	84.070.372	222.298.370
Trade receivables	10	577.622.814	443.690.225
Other receivables	11	1.649.525.777	749.041.369
Inventories	13	172.076.283	148.995.932
Other current assets	26	194.545.702	143.673.757
Non-current Assets		7.157.108.485	5.772.234.243
Other receivables	11	214.636.988	664.360.128
Financial assets	7	1.750.943	1.750.943
Investments accounted for using the equity	16	193.562.028	152.052.556
Investment property	17	49.570.000	48.810.000
Tangible assets	18	6.443.437.235	4.811.019.050
Intangible assets	19	33.099.101	10.669.612
Other non-current assets	26	221.052.190	83.571.954
TOTAL ASSETS		10.648.885.985	8.570.397.771

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of Report and Financial Statements Originally Issued in Turkish)

TÜRK HAVA YOLLARI A.O. AND ITS SUBSIDIARY
AUDITED CONSOLIDATED BALANCE SHEET

AS OF 31 DECEMBER 2010

(All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

LIABILITIES	Notes	31 December 2010	31 December 2009
Current Liabilities		2,540,819,554	1,947,551,656
Financial debt	8	493,120,594	412,266,841
Other financial liabilities	9	63,750,323	46,078,943
Trade payables	10	735,874,026	559,109,822
Other payables	11	162,798,563	156,633,381
Current tax liabilities	35	-	2,419,544
Provisions	22	20,480,602	7,287,354
Provisions for employee benefits	24	102,214,757	54,734,480
Passenger flight liabilities	26	673,843,879	586,525,279
Other current liabilities	26	288,736,810	122,496,012
Non- current Liabilities		4,360,659,447	3,177,965,889
Financial debt	8	3,684,958,785	2,575,899,283
Other payables	11	9,831,914	8,941,613
Provisions for employee benefits	24	170,505,529	151,875,562
Deferred tax liability	35	435,385,525	362,243,105
Other non- current liabilities	26	59,977,694	79,006,326
SHAREHOLDERS' EQUITY			
Equity Attributable to Shareholders of Parent		3,747,406,984	3,444,880,226
Share capital	27	1,000,000,000	875,000,000
Inflation difference on shareholders' equity	27	1,123,808,032	1,123,808,032
Restricted reserves assorted from profit differences	27	39,326,341	22,686,727
Currency translation differences	27	3,589,635	4,641,339
Cash flow hedge fund	27	15,383,772	(1,751,329)
Retained earnings	27	1,278,855,843	861,419,177
Net profit for the period	27	286,443,361	559,076,280
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		10,648,885,985	8,570,397,771

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of Report and Financial Statements Originally Issued in Turkish)

TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 31 DECEMBER 2011

(All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

	Notes	Current Period 1 January- 31 December 2011	Prior Period 1 January- 31 December 2010
Sales revenue	28	11,815,424,727	8,422,771,140
Cost of sales (-)	28	(9,787,529,272)	(6,652,115,477)
GROSS PROFIT		2,027,895,455	1,770,655,663
Marketing and sales expenses (-)	29	(1,304,775,986)	(980,877,520)
Administrative expenses (-)	29	(384,604,722)	(327,017,860)
Other operating income	31	159,756,551	141,579,534
Other operating expenses (-)	31	(397,182,482)	(122,151,211)
OPERATING PROFIT		101,088,816	482,188,606
Share of investments' profit/ (loss) accounted for using the equity method	16	10,074,016	(36,800,970)
Financial income	32	277,453,552	72,851,263
Financial expenses (-)	33	(242,727,392)	(152,549,546)
PROFIT BEFORE TAX		145,888,992	365,689,353
Tax expense		(127,372,360)	(79,245,992)
Current tax expense (-)	35	(16,770,183)	(10,387,347)
Deferred tax expense (-)	35	(110,602,177)	(68,858,645)
PROFIT FOR THE YEAR		18,516,632	286,443,361
OTHER COMPREHENSIVE INCOME / (EXPENSE)			
Change in currency translation differences		795,001,243	(1,051,704)
Change in cash flow hedge fund		(77,496,523)	21,418,876
Tax expense (-)/income (+) on items in other comprehensive income		15,499,305	(4,283,775)
OTHER COMPREHENSIVE INCOME (AFTER TAX)		733,004,025	16,083,397
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		751,520,657	302,526,758
Earnings per share (Kır)	36	0.02	0.24

(Convenience Translation of Report and Financial Statements Originally Issued in Turkish)

TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
AUDITED CONSOLIDATED BALANCE SHEET

AS OF 31 DECEMBER 2011

(All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

ASSETS	Notes	Current Period 31 December 2011	Prior Period 31 December 2010
Current Assets		4,073,526,998	3,491,777,500
Cash and cash equivalents	6	1,549,524,710	813,936,552
Financial assets	7	213,899,678	84,070,372
Trade receivables	10	760,396,929	577,622,814
Other receivables	11	811,695,889	1,649,525,777
Inventories	13	251,785,807	172,076,283
Other current assets	26	206,751,785	194,545,702
Non-current assets held for sale	34	279,472,200	-
Non-current Assets		12,331,420,131	7,157,108,485
Other receivables	11	583,806,507	214,636,988
Financial assets	7	1,767,872	1,750,943
Investments accounted for using the equity method	16	294,960,592	193,562,028
Investment property	17	54,720,000	49,570,000
Tangible assets	18	11,092,594,872	6,443,437,235
Intangible assets	19	46,962,939	33,099,101
Other non-current assets	26	256,607,349	221,052,190
TOTAL ASSETS		16,404,947,129	10,648,885,985

(Convenience Translation of Report and Financial Statements Originally Issued in Turkish)

TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
AUDITED CONSOLIDATED BALANCE SHEET
AS OF 31 DECEMBER 2011

(All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

LIABILITIES	Notes	Current Period 31 December 2011	Prior Period 31 December 2010
Current Liabilities		3,951,410,408	2,540,819,554
Financial debt	8	790,159,337	493,120,594
Other financial liabilities	9	158,483,592	63,750,323
Trade payables	10	1,001,609,621	735,874,026
Other payables	11	216,512,852	162,798,563
Current tax liabilities	35	5,368,643	-
Provisions	22	26,224,798	20,480,602
Provisions for employee benefits	24	251,298,892	102,214,757
Passenger flight liabilities	26	1,076,598,617	673,843,879
Other current liabilities	26	425,154,056	288,736,810
Non-current Liabilities		7,954,609,080	4,360,659,447
Financial debt	8	7,122,723,496	3,684,958,785
Other payables	11	11,439,394	9,831,914
Provisions for employee benefits	24	191,632,448	170,505,529
Deferred tax liability	35	574,679,843	435,385,525
Other non-current liabilities	26	54,133,899	59,977,694
SHAREHOLDERS' EQUITY			
Equity Attributable to Shareholders' of Parent		4,498,927,641	3,747,406,984
Share capital	27	1,200,000,000	1,000,000,000
Inflation difference on shareholders' equity	27	1,123,808,032	1,123,808,032
Restricted reserves assorted from profit reserves	27	39,326,341	39,326,341
Currency translation differences	27	798,590,878	3,589,635
Cash flow hedge fund	27	(46,613,446)	15,383,772
Retained earnings	27	1,365,299,204	1,278,855,843
Net profit for the year	27	18,516,632	286,443,361
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		16,404,947,129	10,648,885,985

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of Report and Financial Statements Originally Issued in Turkish)
TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
AUDITED CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 31 DECEMBER 2012
(All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

		Current Period 1 January 31 December 2012	Prior Period 1 January 31 December 2011
	Notes		
Sales revenue	28	14,909,003,818	11,812,549,908
Cost of sales (-)	28	(11,893,596,710)	(9,803,269,512)
GROSS PROFIT		3,015,407,108	2,009,280,396
Marketing and sales expenses (-)	29	(1,593,367,677)	(1,284,859,256)
Administrative expenses (-)	29	(374,221,814)	(365,283,678)
Other operating income	31	600,682,892	160,190,646
Other operating expenses (-)	31	(43,666,621)	(396,680,737)
OPERATING PROFIT		1,604,833,888	122,647,371
Share of investments' profit accounted by using the equity method	16	5,149,234	10,074,016
Financial income	32	162,136,645	264,238,277
Financial expenses (-)	33	(414,741,611)	(251,070,672)
PROFIT BEFORE TAX		1,357,378,156	145,888,992
Tax expense		(224,010,923)	(127,372,360)
Current tax expense (-)	35	(32,616,486)	(16,770,183)
Deferred tax expense (-)	35	(191,394,437)	(110,602,177)
PROFIT FOR THE YEAR		1,133,367,233	18,516,632
OTHER COMPREHENSIVE INCOME / (EXPENSE)			
Change in currency translation adjustment		(228,479,860)	795,001,243
Change in cash flow hedge reserves		1,535,719	(77,496,523)
Tax expense (-)/income (+) on items in other comprehensive income		(307,144)	15,499,305
OTHER COMPREHENSIVE (LOSS)/ INCOME (AFTER TAX)		(227,251,285)	733,004,025
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		906,115,948	751,520,657
Earnings per share (Kr)	36	0.94	0.02

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of Report and Financial Statements Originally Issued in Turkish)
TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
AUDITED CONSOLIDATED BALANCE SHEET
AS OF 31 DECEMBER 2012
 (All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

ASSETS	Notes	Current Period 31 December 2012	Prior Period 31 December 2011
Current Assets		3,899,761,429	4,042,735,398
Cash and cash equivalents	6	1,355,542,536	1,549,524,710
Short term financial investments	7	551,820,443	213,899,678
Trade receivables	10	777,402,622	764,775,891
Other receivables	11	754,126,100	792,699,876
Inventories	13	259,199,763	251,785,807
Other current assets	26	201,669,965	190,577,236
Non-current assets held for sale	34	-	279,472,200
 Non-current Assets		 14,881,141,034	 12,362,211,730
Other receivables	11	1,553,830,754	614,598,106
Financial assets	7	2,049,244	1,767,872
Investments accounted by using the equity method	16	269,069,545	294,960,592
Investment property	17	57,985,000	54,720,000
Property and equipment	18	12,693,339,589	11,092,594,872
Intangible assets	19	51,183,767	46,962,939
Other non-current assets	26	253,683,135	256,607,349
 TOTAL ASSETS		 18,780,902,463	 16,404,947,128

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of Report and Financial Statements Originally Issued in Turkish)
TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
AUDITED CONSOLIDATED BALANCE SHEET
AS OF 31 DECEMBER 2012
(All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

LIABILITIES	Notes	Current Period 31 December 2012	Prior Period 31 December 2011
Current Liabilities		4,533,667,538	3,951,410,407
Financial debt	8	866,011,394	790,159,337
Other financial liabilities	9	192,700,698	158,358,545
Trade payables	10	912,324,274	870,440,470
Other payables	11	153,494,125	151,332,850
Current tax provision	35	-	5,368,643
Provisions	22	35,516,181	26,224,798
Provisions for employee benefits	24	188,123,923	249,623,497
Passenger flight liabilities	26	1,668,475,819	1,279,313,640
Other current liabilities	26	517,021,124	420,588,627
Non- current Liabilities		8,842,191,336	7,954,609,080
Financial debt	8	7,800,982,204	7,122,723,496
Other payables	11	15,659,634	11,439,394
Provisions for employee benefits	24	234,019,405	191,632,448
Deferred tax liability	35	744,083,660	574,679,843
Other non- current liabilities	26	47,446,433	54,133,899
SHAREHOLDERS' EQUITY			
Equity Attributable to Shareholders' of Parent		5,405,043,589	4,498,927,641
Share capital	27	1,200,000,000	1,200,000,000
Inflation difference on shareholders' equity	27	1,123,808,032	1,123,808,032
Restricted profit reserves	27	39,326,341	39,326,341
Currency translation adjustments	27	570,111,018	798,590,878
Cash flow hedge reserves	27	(45,384,871)	(46,613,446)
Retained earnings	27	1,383,815,836	1,365,299,204
Net profit for the year	27	1,133,367,233	18,516,632
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		18,780,902,463	16,404,947,128

The accompanying notes form an integral part of these consolidated financial statements.

Convenience Translation to English of Consolidated Financial Statements Originally Issued in Turkish
TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
Consolidated Statement of Profit or Loss and Other Comprehensive Income
For the Year Ended 31 December 2013
 (All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

		Audited	Audited
		1 January -	(Restated) (*)
	Notes	31 December 2013	31 December 2012
<u>PROFIT OR LOSS</u>			
Sales Revenue	33	18.776.784.325	14.762.062.246
Cost of Sales (-)	34	(15.304.655.417)	(11.716.974.068)
GROSS PROFIT		3.472.128.908	3.045.088.178
General Administrative Expenses (-)	35	(434.976.154)	(371.529.589)
Marketing and Sales Expenses (-)	35	(1.947.304.294)	(1.588.790.893)
Other Operating Income	36	230.555.047	170.551.907
Other Operating Expenses (-)	36	(80.372.043)	(115.962.720)
OPERATING PROFIT		1.240.031.464	1.139.356.883
Income from Investment Activities	37	131.813.063	488.674.809
Share of Investments' Profit / Loss Accounted By Using The Equity method	4	108.973.512	5.961.253
OPERATING PROFIT BEFORE FINANCIAL INCOME/EXPENSE		1.480.818.039	1.633.992.945
Financial Income	39	50.145.542	88.516.891
Financial Expenses (-)	39	(565.719.326)	(337.397.405)
PROFIT BEFORE TAX FROM CONTINUING OPERATIONS		965.244.255	1.385.112.431
Tax Expense of Continuing Operations		(282.536.828)	(229.395.374)
Current Tax Expense	41	-	(32.616.486)
Deferred Tax Expense	41	(282.536.828)	(196.778.888)
PROFIT FOR THE PERIOD FROM CONTINUING OPERATIONS		682.707.427	1.155.717.057
<u>OTHER COMPREHENSIVE INCOME</u>			
To Be Reclassified To Profit or Loss		1.028.009.655	(227.251.285)
Currency Translation Adjustment		1.083.831.570	(228.479.860)
Gains/ (Losses) of Cash Flow Hedge Reserves		(65.561.681)	5.980.432
Actuarial Gains/(Losses) from Cash Flow Hedge Reserves of			
Investment Accounted by Using the Equity Method		(4.215.713)	(4.444.713)
Tax (Expense)/Income of Other Comprehensive Income		13.955.479	(307.144)
Not To Be Reclassified To Profit or Loss		20.010.648	(22.349.824)
Actuarial Gains/(Losses) from Defined Pension Plans		25.626.991	(26.922.256)
Actuarial Gains/(Losses) from Defined Pension Plans of			
Investments Accounted by Using the Equity Method		(613.681)	(1.015.024)
Tax Expense/(Income) of Other Comprehensive Income		(5.002.662)	5.587.456
OTHER COMPREHENSIVE INCOME		1.048.020.303	(249.601.109)
TOTAL COMPREHENSIVE INCOME		1.730.727.730	906.115.948
Earning Per Share (Kr)	42	0,49	0,84

(*)Refer to Note 2

The accompanying notes are an integral part of these consolidated financial statements.

Convenience Translation to English of Consolidated Financial Statements Originally Issued in Turkish
TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
Consolidated Balance Sheet as at 31 December 2013
 (All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

		Audited	Audited
			(Restated) (*)
ASSETS	Notes	31 December 2013	31 December 2012
Current Assets			
Cash and Cash Equivalents	6	1,338,983.835	1,355,542,536
Financial Investments	7	42,774,034	476,958,794
Trade Receivables			
-Trade Receivables From Related Parties	10	382,750	18,975,259
-Trade Receivables From Non-Related Parties	11	1,147,707,413	754,635,214
Other Receivables			
-Other Receivables from Related Parties	10	4,087,847	8,531
-Other Receivables from Non-Related Parties	13	1,376,697,906	755,052,298
Derivative Financial Instruments	45	64,279,662	74,861,649
Inventories	14	342,324,371	259,199,763
Prepaid Expenses	16	89,366,115	84,553,331
Current Income Tax Assets	41	16,507,184	19,666,261
Other Current Assets	31	112,423,952	62,045,773
TOTAL CURRENT ASSETS		4,535,535,069	3,861,499,409
Non-Current Assets			
Financial Investments	7	2,452,721	2,049,244
Other Receivables			
-Other Receivables from Non-Related Parties	13	2,680,608,826	1,584,919,109
Equity Accounted Investees	4	389,674,199	269,069,545
Investment Property	17	76,320,000	57,985,000
Property and Equipment	18	17,162,416,670	12,693,339,589
Intangible Assets			
- Other Intangible Assets	19	81,851,159	51,183,767
- Goodwill	20	58,240,802	-
Prepaid Expenses	16	412,242,181	237,886,052
TOTAL NON-CURRENT ASSETS		20,863,806,558	14,896,432,306
TOTAL ASSETS		25,399,341,627	18,757,931,715

(*)Refer to Note 2

The accompanying notes are an integral part of these consolidated financial statements

Convenience Translation to English of Consolidated Financial Statements Originally Issued in Turkish
TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
Consolidated Balance Sheet as at 31 December 2013
 (All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

		Audited	Audited
			(Restated) (*)
LIABILITIES	Notes	31 December 2013	31 December 2012
Current Liabilities			
Short-Term Portion of Long-Term Borrowings	8-21	1.188.220.823	866.011.394
Other Financial Liabilities	9	33.808.413	31.064.076
Trade Payables			
-Trade Payables to Related Parties	10	374.606.410	215.000.995
-Trade Payables to Non-Related Parties	11	1.076.575.170	693.789.816
Payables Related to Employee Benefits	12	307.983.476	183.079.678
Other Payables			
-Other Payables to Non-Related Parties	13	114.181.687	76.806.199
Derivative Financial Instruments	45	233.949.090	161.636.622
Deferred Income	16	46.629.988	41.819.652
Passenger Flight Liabilities	30	2.562.506.267	1.668.475.819
Short-term Provisions			
-Provisions for Employee Benefits	26	64.731.115	41.066.116
-Other Provisions	26	29.819.212	35.516.181
Other Current Liabilities	31	619.744.180	496.430.242
TOTAL CURRENT LIABILITIES		6.652.755.831	4.510.696.790
Non- Current Liabilities			
Long-Term Borrowings	8-21	10.364.269.509	7.800.982.204
Trade Payables			
- Trade Payables to Non- Related Parties		3.549.001	-
Other Payables			
-Other Payables to Non-Related Parties	13	30.917.704	15.659.634
Deferred Income	16	31.157.986	47.446.433
Long-term Provisions			
-Provisions for Employee Benefits	28	249.604.088	234.019.405
Deferred Tax Liability	41	1.104.597.152	744.083.660
TOTAL NON- CURRENT LIABILITIES		11.784.095.440	8.842.191.336
Equity Attributable to Equity Holders of the Parent			
Share Capital	32	1.380.000.000	1.200.000.000
Inflation Adjustment on Share Capital	32	1.123.808.032	1.123.808.032
Items That Will Never Be Reclassified to Profit or Loss			
-Actuarial Losses from Defined Pension Plans	32	(6.986.903)	(26.997.551)
Items That Are or May Be Reclassified to Profit or Loss			
-Foreign currency translation differences	32	1.653.942.588	570.111.018
-Losses from Hedging	32	(101.206.786)	(45.384.871)
Restricted Profit Reserves	32	59.372.762	39.326.341
Retained Earnings	32	2.170.853.236	1.388.463.563
Net Profit	32	682.707.427	1.155.717.057
TOTAL EQUITY		6.962.490.356	5.405.043.589
TOTAL LIABILITIES AND EQUITY		25.399.341.627	18.757.931.715

(*)Refer to Note 2

The accompanying notes are an integral part of these consolidated financial statements.

Convenience Translation to English of Consolidated Financial Statements Originally Issued in Turkish
TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
Consolidated Statement of Profit or Loss and Other Comprehensive Income
For the Year Ended 31 December 2014
 (All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

		Audited	Audited
	Notes	1 January - 31 December 2014	1 January - 31 December 2013
PROFIT OR LOSS			
Sales Revenue	33	24.157.801.405	18.776.784.325
Cost of Sales (-)	34	(19.812.624.371)	(15.304.655.417)
GROSS PROFIT		4.345.177.034	3.472.128.908
General Administrative Expenses (-)	35	(598.748.595)	(434.976.154)
Marketing and Sales Expenses (-)	35	(2.462.255.861)	(1.947.304.294)
Other Operating Income	36	178.577.444	218.962.448
Other Operating Expenses (-)	36	(104.192.122)	(82.685.160)
OPERATING PROFIT		1.358.557.980	1.226.125.748
Income from Investment Activities	37	210.887.363	145.511.240
Expenses from Investment Activities (-)	37	(52.200.322)	(2.105.578)
Share of Investments' Profit / Loss Accounted By Using The Equity Method	4	160.773.731	108.973.512
OPERATING PROFIT BEFORE FINANCIAL INCOME/EXPENSE		1.678.018.672	1.478.504.922
Financial Income	39	980.209.225	50.145.542
Financial Expenses (-)	39	(397.081.094)	(563.406.209)
PROFIT BEFORE TAX FROM CONTINUING OPERATIONS		2.261.146.803	965.244.255
Tax Expense of Continuing Operations		(441.887.267)	(282.536.828)
Current Tax Expense	41	(9.875.007)	-
Deferred Tax Expense	41	(432.012.260)	(282.536.828)
PROFIT FOR THE PERIOD FROM CONTINUING OPERATIONS		1.819.259.536	682.707.427
OTHER COMPREHENSIVE INCOME			
To Be Reclassified To Profit or Loss		380.632.122	1.033.459.675
Currency Translation Adjustment		707.977.183	1.089.281.590
Gains/ (Losses) of Cash Flow Hedge Reserves		(417.647.105)	(65.561.681)
Actuarial Gains/(Losses) from Cash Flow Hedge Reserves of Investment Accounted by Using the Equity Method		8.465.779	(4.215.713)
Tax (Expense)/Income of Other Comprehensive Income		81.836.265	13.955.479
Not To Be Reclassified To Profit or Loss		(7.978.884)	14.560.628
Actuarial Gains/(Losses) from Defined Pension Plans		(10.492.174)	18.814.466
Actuarial Gains/(Losses) from Defined Pension Plans of Investments Accounted by Using the Equity Method		518.569	(613.681)
Tax Expense/(Income) of Other Comprehensive Income		1.994.721	(3.640.157)
OTHER COMPREHENSIVE INCOME		372.653.238	1.048.020.303
TOTAL COMPREHENSIVE INCOME		2.191.912.774	1.730.727.730
Earning Per Share (Kr)	42	1,32	0,49

The accompanying notes are an integral part of these consolidated financial statements.

Convenience Translation to English of Consolidated Financial Statements Originally Issued in Turkish
TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
Consolidated Balance Sheet as at 31 December 2014
 (All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

ASSETS	Notes	Audited	Audited
		31 December 2014	31 December 2013
Current Assets			
Cash and Cash Equivalents	6	1.473.508.453	1.338.983.835
Financial Investments	7	200.932.718	42.774.034
Trade Receivables			
-Trade Receivables From Related Parties	10	628.622	382.750
-Trade Receivables From Non-Related Parties	11	1.056.706.451	1.147.707.413
Other Receivables			
-Other Receivables from Related Parties	10	7.505.738	4.087.847
-Other Receivables from Non-Related Parties	13	2.772.633.154	1.376.697.906
Derivative Financial Instruments	44	353.543.745	64.279.662
Inventories	14	452.228.491	342.324.371
Prepaid Expenses	16	138.866.880	89.366.115
Current Income Tax Assets	41	18.570.204	16.507.184
Other Current Assets	31	89.723.728	112.423.952
TOTAL CURRENT ASSETS		6.564.848.184	4.535.535.069
Non-Current Assets			
Financial Investments	7	2.664.861	2.452.721
Other Receivables			
-Other Receivables from Non-Related Parties	13	2.454.780.090	2.680.608.826
Equity Accounted Investees	4	525.582.579	389.674.199
Investment Property	17	82.560.000	76.320.000
Property and Equipment	18	21.335.501.851	17.165.656.116
Intangible Assets			
- Other Intangible Assets	19	165.458.929	113.081.412
- Goodwill	20	28.799.966	26.507.294
Prepaid Expenses	16	715.410.602	412.242.181
TOTAL NON-CURRENT ASSETS		25.310.758.878	20.866.542.749
TOTAL ASSETS		31.875.607.062	25.402.077.818

The accompanying notes are an integral part of these consolidated financial statements.

Convenience Translation to English of Consolidated Financial Statements Originally Issued in Turkish
TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
Consolidated Balance Sheet as at 31 December 2014
 (All amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

LIABILITIES	Notes	Audited	Audited
		31 December 2014	31 December 2013
Current Liabilities			
Short-Term Portion of Long-Term Borrowings	8-21	1.421.172.095	1.188.220.823
Other Financial Liabilities	9	44.261.101	33.808.413
Trade Payables			
-Trade Payables to Related Parties	10	343.039.672	374.606.410
-Trade Payables to Non-Related Parties	11	1.195.561.375	1.076.575.170
Payables Related to Employee Benefits	12	296.516.690	307.983.476
Other Payables			
-Other Payables to Non-Related Parties	13	165.560.060	114.181.687
Derivative Financial Instruments	44	990.806.416	233.949.090
Deferred Income	16	22.095.569	46.629.988
Passenger Flight Liabilities	30	3.242.625.728	2.562.506.267
Current Tax Provision	41	1.860.231	-
Short-term Provisions			
-Provisions for Employee Benefits	26	133.462.891	64.731.115
-Other Provisions	26	36.593.232	29.819.212
Other Current Liabilities	31	611.789.688	619.744.180
TOTAL CURRENT LIABILITIES		8.505.344.748	6.652.755.831
Non- Current Liabilities			
Long-Term Borrowings	8-21	12.333.917.978	10.364.269.509
Trade Payables			
- Trade Payables to Non- Related Parties		3.472.514	3.549.001
Other Payables			
-Other Payables to Non-Related Parties	13	33.177.620	30.917.704
Deferred Income	16	32.930.871	31.157.986
Long-term Provisions			
-Provisions for Employee Benefits	28	294.422.303	249.604.088
Deferred Tax Liability	41	1.517.937.898	1.107.333.343
TOTAL NON- CURRENT LIABILITIES		14.215.859.184	11.786.831.631
Equity Attributable to Equity Holders of the Parent			
Share Capital	32	1.380.000.000	1.380.000.000
Inflation Adjustment on Share Capital	32	1.123.808.032	1.123.808.032
Items Those Will Never Be Reclassified to Profit or Loss			
-Actuarial Losses from Defined Pension Plans	32	(20.415.807)	(12.436.923)
Items Those Are or May Be Reclassified to Profit or Loss			
-Foreign currency translation differences	32	2.367.369.791	1.659.392.608
-Losses from Hedging	32	(428.551.847)	(101.206.786)
Restricted Profit Reserves	32	59.372.762	59.372.762
Retained Earnings	32	2.853.560.663	2.170.853.236
Net Profit for the Period	32	1.819.259.536	682.707.427
TOTAL EQUITY		9.154.403.130	6.962.490.356
TOTAL LIABILITIES AND EQUITY		31.875.607.062	25.402.077.818

The accompanying notes are an integral part of these consolidated financial statements.

TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
Consolidated Statement of Profit or Loss and Other Comprehensive Income
For the Year Ended 31 December
 (All amounts are expressed in Million Turkish Lira (TRY) unless otherwise stated.)

	<u>Audited</u>	<u>Audited</u>
	<u>1 January- 31 December 2015</u>	<u>1 January- 31 December 2014</u>
<u>PROFIT OR LOSS</u>		
Sales Revenue	28.752	24.158
Cost of Sales (-)	(22.959)	(19.729)
GROSS PROFIT	5.793	4.429
General Administrative Expenses (-)	(740)	(599)
Marketing and Sales Expenses (-)	(3.129)	(2.462)
Other Operating Income	646	176
Other Operating Expenses (-)	(84)	(101)
OPERATING PROFIT BEFORE INVESTMENT ACTIVITIES	2.486	1.443
Income from Investment Activities	286	210
Expenses from Investment Activities	(3)	(52)
Share of Investments' Profit / Loss Accounted by Using The Equity Method	226	161
OPERATING PROFIT	2.995	1.762
Financial Income	1.450	927
Financial Expenses (-)	(534)	(428)
PROFIT BEFORE TAX	3.911	2.261
Tax Expense	(918)	(442)
Current Tax Expense	(34)	(10)
Deferred Tax Expense	(884)	(432)
PROFIT FOR THE YEAR	2.993	1.819
<u>OTHER COMPREHENSIVE INCOME</u>		
Items That May Be Reclassified Subsequently To Profit or Loss	1.946	380
Currency Translation Adjustment	2.469	708
Fair Value Gains on Hedging Instruments Entered into for Cash Flow Hedges	(657)	(418)
Fair Value Gains/(Loss) Hedging Instruments of Investment Accounted by Using the Equity Method Entered into for Cash Flow Hedges	3	8
Income Tax Relating to Items That May Be Reclassified Subsequently to Profit or Loss	131	82
Items That Will Not Be Reclassified Subsequently To Profit or Loss	(3)	(8)
Actuarial Gains/(Losses) on Retirement Pay Obligation	(4)	(10)
Income Tax Relating to Items That Will Not Be Reclassified Subsequently to Profit or Loss	1	2
OTHER COMPREHENSIVE INCOME FOR THE YEAR	1.943	372
OTHER COMPREHENSIVE INCOME FOR THE YEAR	4.936	2.191
Basic Earning Per Share	2,17	1,32

The accompanying notes are an integral part of these consolidated financial statements.

TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
Consolidated Balance Sheet as at 31 December
 (All amounts are expressed in Million Turkish Lira (TRY) unless otherwise stated.)

	<u>Audited</u>	<u>Audited</u>
	<u>31 December 2015</u>	<u>31 December 2014</u>
ASSETS		
Current Assets		
Cash and Cash Equivalents	2.617	1.474
Financial Investments	180	201
Trade Receivables		
-Trade Receivables From Related Parties	1	1
-Trade Receivables From Non-Related Parties	1.051	1.057
Other Receivables		
-Other Receivables from Related Parties	7	7
-Other Receivables from Non-Related Parties	4.019	2.773
Derivative Financial Instruments	290	353
Inventories	628	452
Prepaid Expenses	215	139
Current Income Tax Assets	35	18
Other Current Assets	105	90
TOTAL CURRENT ASSETS	9.148	6.565
Non-Current Assets		
Financial Investments	3	3
Other Receivables		
-Other Receivables from Non-Related Parties	3.078	2.454
Investments Accounted by Using Equity Method	715	526
Investment Property	2	83
Property and Equipment	33.191	21.336
Intangible Assets		
- Other Intangible Assets	258	165
- Goodwill	36	29
Prepaid Expenses	1.207	715
TOTAL NON-CURRENT ASSETS	38.490	25.311
TOTAL ASSETS	47.638	31.876

The accompanying notes are an integral part of these consolidated financial statements.

TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
Consolidated Balance Sheet as at 31 December
 (All amounts are expressed in Million Turkish Lira (TRY) unless otherwise stated.)

	Audited	Audited
	31 December 2015	31 December 2014
LIABILITIES		
Current Liabilities		
Short Term Borrowings	727	-
Short-Term Portion of Long-Term Borrowings	2,218	1,421
Other Financial Liabilities	44	44
Trade Payables		-
-Trade Payables to Related Parties	383	343
-Trade Payables to Non-Related Parties	1,566	1,196
Payables Related to Employee Benefits	351	296
Other Payables		
-Other Payables to Non-Related Parties	245	166
Derivative Financial Instruments	1,650	991
Deferred Income	37	22
Passenger Flight Liabilities	3,172	3,243
Current Tax Provision	29	2
Short-Term Provisions		
-Provisions for Employee Benefits	150	133
-Other Provisions	44	37
Other Current Liabilities	632	612
TOTAL CURRENT LIABILITIES	11,248	8,506
Non- Current Liabilities		
Long-Term Borrowings	19,294	12,334
Trade Payables		
- Trade Payables to Non-Related Parties	-	3
Other Payables		
-Other Payables to Non-Related Parties	34	33
Deferred Income	46	33
Long-Term Provisions		
-Provisions for Employee Benefits	348	295
Deferred Tax Liability	2,578	1,518
TOTAL NON- CURRENT LIABILITIES	22,300	14,216
Equity		
Share Capital	1,380	1,380
Inflation difference on shareholders' equity	1,124	1,124
Items That Will Not Be Reclassified to Profit or Loss		
-Actuarial (Losses) on Retirement Pay Obligation	(23)	(20)
Items That Are or May Be Reclassified to Profit or Loss		
-Foreign Currency Translation Differences	4,836	2,367
-Fair Value (Losses) on Hedging Instruments		
Entered into for Cash Flow Hedges	(952)	(429)
Restricted Profit Reserves	59	59
Previous Years Profit	4,673	2,854
Net Profit for the Year	2,993	1,819
TOTAL EQUITY	14,090	9,154
TOTAL LIABILITIES AND EQUITY	47,638	31,876

The accompanying notes are an integral part of these consolidated financial statements .

TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
Consolidated Statement of Profit or Loss and Other Comprehensive Income
For the Year Ended 31 December 2016
(All amounts are expressed in Million Turkish Lira (TRY) unless otherwise stated.)

	Audited	Audited
	1 January - 31 December 2016	1 January - 31 December 2015
<u>PROFIT OR LOSS</u>		
Sales Revenue	29,468	28,752
Cost of Sales (-)	(26,051)	(22,959)
GROSS PROFIT	3,417	5,793
General Administrative Expenses (-)	(948)	(740)
Marketing and Sales Expenses (-)	(3,493)	(3,129)
Other Operating Income	439	646
Other Operating Expenses (-)	(280)	(84)
OPERATING (LOSS)/PROFIT BEFORE INVESTMENT ACTIVITIES	(865)	2,486
Income from Investment Activities	420	286
Expenses from Investment Activities	(59)	(3)
Share of Investments' (Loss) / Profit Accounted by Using The Equity Method	130	226
OPERATING (LOSS)/PROFIT	(374)	2,995
Financial Income	1,074	1,450
Financial Expenses (-)	(698)	(534)
(LOSS)/PROFIT BEFORE TAX	2	3,911
Tax Income (Expense)	(49)	(918)
Current Tax Expense	(65)	(34)
Deferred Tax Income / (Expense)	16	(884)
(LOSS)/ PROFIT FOR THE PERIOD	(47)	2,993
 <u>OTHER COMPREHENSIVE INCOME</u>		
Items That May Be Reclassified Subsequently To Profit or Loss	3,870	1,946
Currency Translation Adjustment	2,849	2,469
Fair Value Gains on Hedging Instruments Entered into for Cash Flow Hedges	1,262	(657)
Fair Value Gains /(Losses) Hedging Instruments of Investment Accounted by Using the Equity Method Entered into for Cash Flow Hedges	14	3
Income Tax Relating Items That May Be Reclassified Subsequently to Profit or Loss	(255)	131
Items That Will Not Be Reclassified		
Subsequently To Profit or Loss	(14)	(3)
Actuarial Gains on Retirement Pay Obligation	(18)	(4)
Income Tax Relating Items That Will Not Be Reclassified Subsequently to Profit or Loss	4	1
OTHER COMPREHENSIVE INCOME FOR THE PERIOD	3,856	1,943
TOTAL COMPREHENSIVE (EXPENSE) / INCOME FOR THE PERIOD	3,809	4,936
Basic (Loss) Earning Per Share (Full US Cents)	(0,03)	2,17

TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES**Consolidated Balance Sheet as at 31 December**

(All amounts are expressed in Million Turkish Lira (TRY) unless otherwise stated.)

	Audited	Audited
	31 December 2016	31 December 2015
ASSETS		
Current Assets		
Cash and Cash Equivalents	5.159	2.617
Financial Investments	1.228	180
Trade Receivables		
-Trade Receivables From Related Parties	-	1
-Trade Receivables From Non-Related Parties	1.334	1.051
Other Receivables		
-Other Receivables from Related Parties	9	7
-Other Receivables from Non-Related Parties	2.968	4.019
Derivative Financial Instruments	694	290
Inventories	763	628
Prepaid Expenses	346	215
Current Income Tax Assets	79	35
Other Current Assets	93	105
TOTAL CURRENT ASSETS	12.673	9.148
Non-Current Assets		
Financial Investments	165	3
Other Receivables		
-Other Receivables from Non-Related Parties	1.815	3.078
Investments Accounted by Using Equity Method	869	715
Investment Property	2	2
Property and Equipment	47.422	33.191
Intangible Assets		
- Other Intangible Assets	259	258
- Goodwill	44	36
Prepaid Expenses	1.825	1.207
TOTAL NON-CURRENT ASSETS	52.401	38.490
TOTAL ASSETS	65.074	47.638

TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES
Consolidated Balance Sheet as at 31 December
(All amounts are expressed in Million Turkish Lira (TRY) unless otherwise stated.)

	Audited	Audited
	31 December 2016	31 December 2015
LIABILITIES		
Current Liabilities		
Short Term Borrowings	4.776	727
Short-Term Portion of Long-Term Borrowings	3.746	2.218
Other Financial Liabilities	13	44
Trade Payables		
-Trade Payables to Related Parties	455	383
-Trade Payables to Non-Related Parties	1.714	1.566
Payables Related to Employee Benefits	504	351
Other Payables		
-Other Payables to Non-Related Parties	326	245
Derivative Financial Instruments	514	1.650
Deferred Income	2.803	3.209
Current Tax Provision	8	29
Short-Term Provisions		
-Provisions for Employee Benefits	155	150
-Other Provisions	60	44
Other Current Liabilities	758	632
TOTAL CURRENT LIABILITIES	15.832	11.248
Non- Current Liabilities		
Long-Term Borrowings	27.526	19.294
Other Payables		
-Other Payables to Non-Related Parties	39	34
Deferred Income	20	46
Long-Term Provisions		
-Provisions for Employee Benefits	397	348
Deferred Tax Liability	3.361	2.578
TOTAL NON- CURRENT LIABILITIES	31.343	22.300
Equity		
Share Capital	1.380	1.380
Inflation Adjustment on Share Capital	1.124	1.124
Items That Will Not Be Reclassified to		
Profit or Loss		
-Actuarial (Losses) on Retirement Pay Obligation	(37)	(23)
Items That Are or May Be Reclassified to		
Profit or Loss		
-Foreign Currency Translation Differences	7.685	4.836
-Fair Value (Losses) on Hedging Instruments		
Entered into for Cash Flow Hedges	69	(952)
Restricted Profit Reserves	59	59
Previous Years Profit	7.666	4.673
Net (Loss) / Profit for the Period	(47)	2.993
TOTAL EQUITY	17.899	14.090
TOTAL LIABILITIES AND EQUITY	65.074	47.638

Appendix-D Pegasus Airlines Annual Reports

(Convenience Translation of Report and Financial Statements Originally Issued in Turkish)

PEGASUS HAVA TAŞIMACILIĞI A.Ş. AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS OF 31 DECEMBER 2013

(Amounts are expressed in TL unless otherwise stated.)

		Current period (Audited) 31 December 2013	(Revised) Prior period (Audited) 31 December 2012
	Notes		
ASSETS			
Current assets		1.191.494.023	339.329.147
Cash and cash equivalents	4	877.401.671	210.150.238
Trade receivables	7	191.391.666	43.985.353
Other receivables	8	40.525.685	34.588.337
Derivative financial instruments	5	25.401.932	14.898.232
Inventories	11	4.035.669	1.882.592
Prepaid expenses	9	41.115.109	33.606.729
Other current assets	18	11.622.291	217.666
Non-Current assets		2.306.710.614	1.869.681.888
Other receivables	8	67.085.279	43.412.916
Investments accounted for using the equity method	12	1.376.792	1.512.211
Property and equipment	13	2.120.627.943	1.730.317.522
Intangible assets	14	11.447.742	5.013.650
Prepaid expenses	9	98.170.170	89.425.589
Deferred tax asset	25	8.002.688	-
TOTAL ASSETS		3.498.204.637	2.209.011.035

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of Report and Financial Statements Originally Issued in Turkish)

PEGASUS HAVA TAŞIMACILIĞI A.Ş. AND ITS SUBSIDIARIES

**CONSOLIDATED STATEMENT OF FINANCIAL POSITION
AS OF 31 DECEMBER 2013**

(Amounts are expressed in TL unless otherwise stated.)

		Current period (Audited) 31 December 2013	(Revised) Prior period (Audited) 31 December 2012
	Notes		
LIABILITIES			
Current liabilities		677.597.387	538.075.762
Short term financial liabilities	6	3.980.899	50.722.463
Short term portion of long term financial liabilities	6	181.171.887	135.232.251
Trade payables	7	167.294.824	129.649.974
<i>Trade payables to third parties</i>	7	167.179.253	126.170.626
<i>Trade payables to related parties</i>	27	115.571	3.479.348
Employee benefit obligations	17	6.805.756	4.916.097
Other payables	8	17.079.784	6.827.091
Derivative financial instruments	5	10.939.103	3.006.145
Deferred revenue	10	248.254.755	171.171.085
Short term provisions		41.697.458	28.550.186
<i>Short term provisions for employee benefits</i>	17	30.864.026	24.044.479
<i>Other short term provisions</i>	15	10.833.432	4.505.707
Other current liabilities	18	372.921	8.000.470
Non-Current liabilities		1.674.380.165	1.343.583.125
Long term financial liabilities	6	1.441.206.556	1.240.919.331
Deferred revenue	10	6.423.264	1.546.783
Long term provisions		65.577.108	28.936.038
<i>Long term provisions for employee benefits</i>	17	6.018.849	4.149.445
<i>Other long term provisions</i>	15	59.558.259	24.786.593
Deferred tax liabilities	25	161.173.237	72.180.973
SHAREHOLDERS' EQUITY		1.146.227.085	327.352.148
Equity attributable to shareholders' of the parent		1.145.684.240	327.352.148
Paid-in share capital	19	102.272.000	75.000.000
Effects of business acquisition		29.504.957	29.504.957
Share premium on capital stock		455.687.025	-
Other comprehensive income/expense to be reclassified to profit or loss			
Currency translation differences		308.022.092	72.735.810
Hedge fund		20.321.546	11.918.586
Retained earnings		138.192.795	11.889.279
Net profit for the year		91.683.825	126.303.516
Non-controlling interest		542.845	-
TOTAL LIABILITIES AND EQUITY		3.498.204.637	2.209.011.035

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of Report and Financial Statements Originally Issued in Turkish)

PEGASUS HAVA TAŞIMACILIĞI A.Ş. AND ITS SUBSIDIARIES

**CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND
OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2013**

(Amounts are expressed in TL unless otherwise stated.)

		Current period (Audited) 1 January - 31 December 2013	(Revised) Prior period (Audited) 1 January - 31 December 2012
Profit or loss	Notes		
Sales	20	2.404.060.243	1.919.446.126
Cost of sales (-)	20	(1.953.544.819)	(1.600.787.909)
Gross profit		450.515.424	318.658.217
General administrative expenses (-)	21	(69.776.244)	(50.250.429)
Marketing expenses (-)	21	(105.089.686)	(80.353.989)
Other operating income	22	6.488.899	14.578.703
Other operating expenses (-)	22	(24.047.246)	(831.638)
Operating profit		258.091.147	201.800.864
Income from investing activities	23	108.327	126.988
Expenses from investing activities	23	(4.216.608)	(7.577.464)
Share of investments' loss accounted for using equity method	12	(515.547)	(1.513.990)
Operating profit before financial income/(expense)		253.467.319	192.836.398
Financial income	24	50.762.349	12.898.711
Financial expense (-)	24	(149.556.533)	(50.415.510)
Profit before tax		154.673.135	155.319.599
Tax expense			
Current tax expense		-	-
Deferred tax expense	25	(66.361.129)	(29.016.083)
Profit for the period		88.312.006	126.303.516
Net profit attributable to:			
Shareholders' of the parent		91.683.825	126.303.516
Non-controlling interest		(3.371.819)	-
		88.312.006	126.303.516
Earnings per share (TL)	26	0,98	1,68
Other comprehensive income/(loss):			
Items to be reclassified to profit or loss			
Currency translation differences		233.296.976	3.555.138
Cash flow hedge		8.402.960	8.727.235
Loss on derivative contracts		10.503.700	10.909.044
Deferred tax effect		(2.100.740)	(2.181.809)
Other comprehensive income		241.699.936	12.282.373
Total comprehensive profit		330.011.942	138.585.889
Total comprehensive profit attributable to:			
Shareholders' of the parent		335.373.067	138.585.889
Non-controlling interest		(5.361.125)	-
		330.011.942	138.585.889

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of The Report and Financial Statements Originally Issued in Turkish)

PEGASUS HAVA TAŞIMACILIĞI A.Ş. AND ITS SUBSIDIARIES**CONSOLIDATED BALANCE SHEET
AS OF 31 DECEMBER 2014**

(Amounts are expressed in TL unless otherwise stated.)

	Notes	Current year (Audited) 31 December 2014	Prior year (Audited) 31 December 2013
ASSETS			
Current assets		1.508.849.889	1.226.547.159
Cash and cash equivalents	53	856.890.769	877.401.671
Trade receivables	7	233.180.223	191.073.066
<i>Trade receivables from related parties</i>		-	-
<i>Trade receivables from third parties</i>	7	233.180.223	191.073.066
Other receivables	9	289.309.942	40.844.285
<i>Other receivables from related parties</i>	6	301.172	318.600
<i>Other receivables from third parties</i>		289.008.770	40.525.685
Derivative financial instruments	46	6.576.885	31.733.900
Inventories	10	7.663.964	4.035.669
Prepaid expenses	12	106.102.556	63.593.533
Current income tax assets	40	6.934.519	6.242.744
Other current assets	29	2.191.031	11.622.291
Non-Current assets		2.025.868.636	2.277.989.446
Other receivables	9	41.943.524	67.085.279
<i>Other receivables from related parties</i>		-	-
<i>Other receivables from third parties</i>	9	41.943.524	67.085.279
Investment accounted by using the equity method	4	2.458.775	1.376.792
Property and equipment	14	1.931.512.646	2.120.627.943
Intangible assets	17	11.471.044	11.447.742
Prepaid expenses	12	25.081.645	69.449.002
Deferred tax assets	40	13.401.002	8.002.688
TOTAL ASSETS		3.534.718.525	3.504.536.605

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of The Report and Financial Statements Originally Issued in Turkish)

PEGASUS HAVA TAŞIMACILIĞI A.Ş. AND ITS SUBSIDIARIES

**CONSOLIDATED BALANCE SHEET
AS OF 31 DECEMBER 2014**

(Amounts are expressed in TL unless otherwise stated.)

	Notes	Current year (Audited) 31 December 2014	Prior year (Audited) 31 December 2013
LIABILITIES			
Current liabilities		862.779.698	683.929.355
Short term financial liabilities	47	4.504.480	3.980.899
Short term portion of long term financial liabilities	47	162.765.963	181.171.887
Trade payables	7	196.386.561	167.294.824
<i>Trade payables to related parties</i>	6	85.569	115.571
<i>Trade payables to third parties</i>		196.300.992	167.179.253
Employee benefit obligations	27	8.641.269	6.805.756
Other payables	9	13.236.652	17.079.784
<i>Other payables to related parties</i>		-	-
<i>Other payables to third parties</i>	9	13.236.652	17.079.784
Derivative financial instruments	46	182.607.585	17.271.071
Deferred income	12	264.344.800	248.254.755
Short term provisions		30.061.681	41.697.458
<i>Short term provisions for employee benefits</i>	27	27.240.263	30.864.026
<i>Other short term provisions</i>	25	2.821.418	10.833.432
Other current liabilities	29	230.707	372.921
Non-Current liabilities		1.510.778.611	1.674.380.165
Long term financial liabilities	47	1.186.991.297	1.441.206.556
Derivative financial instruments	46	62.316.092	-
Deferred income	12	7.725.108	6.423.264
Long term provisions		125.104.840	65.577.108
<i>Long term provisions for employee benefits</i>	27	6.192.649	6.018.849
<i>Other long term provisions</i>	25	118.912.191	59.558.259
Deferred tax liabilities	40	128.641.274	161.173.237
SHAREHOLDERS' EQUITY		1.161.160.216	1.146.227.085
Equity attributable to shareholders' of the parent		1.161.283.251	1.145.684.240
Paid-in share capital	30	102.272.000	102.272.000
Effects of business acquisition		29.504.957	29.504.957
Share premiums on capital stock		455.687.025	455.687.025
Other comprehensive income/expense to be reclassified to profit or loss			
Currency translation differences	38	258.696.079	308.022.092
Hedge fund	38	(58.095.258)	20.321.546
Retained earnings		229.876.620	138.192.795
Net profit for the year		143.341.828	91.683.825
Non-controlling interest		(123.035)	542.845
TOTAL LIABILITIES AND EQUITY		3.534.718.525	3.504.536.605

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of The Report and Financial Statements Originally Issued in Turkish)

PEGASUS HAVA TAŞIMACILIĞI A.Ş. AND ITS SUBSIDIARIES**CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER
COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2014**

(Amounts are expressed in TL unless otherwise stated.)

		Current year (Audited) 1 January - 31 December 2014	Prior year (Audited) 1 January - 31 December 2013
	Notes		
Sales	31	3.081.727.739	2.393.583.737
Cost of sales (-)	31	(2.618.267.190)	(1.944.855.540)
Gross profit		463.460.549	448.728.197
General administrative expenses (-)	33	(82.933.933)	(67.989.017)
Marketing expenses (-)	33	(133.117.559)	(105.089.686)
Other operating income	34	82.330.954	6.488.899
Other operating expenses (-)	34	(5.038.160)	(24.047.246)
Operating profit		324.701.851	258.091.147
Income from investing activities	35	7.426.984	108.327
Expenses from investing activities (-)	35	-	(4.216.608)
Share of investments income/(loss) accounted by using the equity method	4	1.169.612	(515.547)
Operating profit before financial income/(expense)		333.298.447	253.467.319
Financial income	37	51.162.355	50.762.349
Financial expense (-)	37	(248.786.906)	(149.556.533)
Profit before tax		135.673.896	154.673.135
Tax income expense		7.632.694	(66.361.129)
Current tax expense	40	(3.958.644)	-
Deferred tax income/(expense)	40	11.591.338	(66.361.129)
Net income for the year		143.306.590	88.312.006
Net income attributable to:			
Shareholders' of the parent		143.341.828	91.683.825
Non-controlling interest		(35.238)	(3.371.819)
		143.306.590	88.312.006
Profit per share (TL)	41	1,40	0,98
Other comprehensive (loss) / income			
Items to be reclassified to profit or loss			
Currency translation differences		(49.187.920)	233.296.976
Cash flow hedge		(78.416.804)	8.402.960
(Loss) / gain on derivative contracts	38	(98.021.005)	10.503.700
Taxes related to other comprehensive (loss)/income items to be reclassified to profit or loss			
Deferred tax effect	38	19.604.201	(2.100.740)
Other comprehensive (loss) / income		(127.604.724)	241.699.936
Total comprehensive income		15.701.866	330.011.942
Total comprehensive income attributable to:			
Shareholders' of the parent		15.599.011	335.373.067
Non-controlling interest		102.855	(5.361.125)
		15.701.866	330.011.942

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of The Report and Financial Statements Originally Issued in Turkish)

PEGASUS HAVA TAŞIMACILIĞI A.Ş. AND ITS SUBSIDIARIES**CONSOLIDATED BALANCE SHEET
AS OF 31 DECEMBER 2015**

(Amounts are expressed in TL unless otherwise stated.)

	Notes	Current year (Audited) 31 December 2015	Prior year (Audited) 31 December 2014
ASSETS			
Current assets		1.833.732.173	1.488.893.568
Cash and cash equivalents	36	954.974.093	856.890.769
Trade receivables	7	294.629.623	233.180.223
<i>Trade receivables from related parties</i>		-	-
<i>Trade receivables from third parties</i>	7	294.629.623	233.180.223
Other receivables	8	189.515.187	269.353.621
<i>Other receivables from related parties</i>	6	278.844	1.460.792
<i>Other receivables from third parties</i>		189.236.343	267.892.829
Derivative financial instruments	31	2.341.144	6.576.885
Inventories	9	13.364.708	7.663.964
Prepaid expenses	10	347.664.779	106.102.556
Current income tax assets	28	29.034.468	6.934.519
Other current assets	20	2.208.171	2.191.031
Non-Current assets		2.264.365.079	2.025.868.636
Other receivables	8	29.274.800	41.943.524
<i>Other receivables from related parties</i>		-	-
<i>Other receivables from third parties</i>	8	29.274.800	41.943.524
Investment accounted by using the equity method	4	20.745.960	2.458.775
Property and equipment	11	2.113.308.165	1.931.512.646
Intangible assets	12	14.568.673	11.471.044
Prepaid expenses	10	77.827.374	25.081.645
Deferred tax assets	28	8.640.107	13.401.002
TOTAL ASSETS		4.098.097.252	3.514.762.204

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of The Report and Financial Statements Originally Issued in Turkish)

PEGASUS HAVA TAŞIMACILIĞI A.Ş. AND ITS SUBSIDIARIES

**CONSOLIDATED BALANCE SHEET
AS OF 31 DECEMBER 2015**

(Amounts are expressed in TL unless otherwise stated.)

	Notes	Current year (Audited) 31 December 2015	Prior year (Audited) 31 December 2014
LIABILITIES			
Current liabilities		991.845.572	842.823.377
Short term financial liabilities	32	6.826.527	4.504.480
Short term portion of long term financial liabilities	32	201.887.265	162.765.963
Trade payables	7	245.899.093	176.430.240
<i>Trade payables to related parties</i>	6	1.013.200	85.569
<i>Trade payables to third parties</i>		244.885.893	176.344.671
Employee benefit obligations	18	12.636.938	8.641.269
Other payables	8	12.043.950	13.236.652
<i>Other payables to related parties</i>		-	-
<i>Other payables to third parties</i>	8	12.043.950	13.236.652
Derivative financial instruments	31	178.165.534	182.607.585
Deferred income	10	300.686.908	264.344.800
Short term provisions		29.034.306	30.061.681
<i>Short term provisions for employee benefits</i>	18	26.058.356	27.240.263
<i>Other short term provisions</i>	16	2.975.950	2.821.418
Other current liabilities	20	4.665.051	230.707
Non-Current liabilities		1.653.520.051	1.510.778.611
Long term financial liabilities	32	1.206.722.990	1.186.991.297
Derivative financial instruments	31	-	62.316.092
Deferred income	10	9.831.545	7.725.108
Long term provisions		232.991.886	125.104.840
<i>Long term provisions for employee benefits</i>	18	10.664.601	6.192.649
<i>Other long term provisions</i>	16	222.327.285	118.912.191
Deferred tax liabilities	28	203.973.630	128.641.274
SHAREHOLDERS' EQUITY		1.452.731.629	1.161.160.216
Equity attributable to shareholders' of the parent		1.455.437.269	1.161.283.251
Paid-in share capital	21	102.272.000	102.272.000
Effects of business acquisition		29.504.957	29.504.957
Share premiums on capital stock		455.687.025	455.687.025
Restricted profit reserves		9.806.631	-
Other comprehensive income/expense not to be reclassified to profit or loss			
Actuarial gains/(losses) on defined benefit plans	27	(3.172.494)	-
Other comprehensive income/expense to be reclassified to profit or loss			
Currency translation differences	27	406.940.383	258.696.079
Hedge fund	27	(22.138.754)	(58.095.258)
Retained earnings		363.411.817	229.876.620
Net profit for the year		113.125.704	143.341.828
Non-controlling interest		(2.705.640)	(123.035)
TOTAL LIABILITIES AND EQUITY		4.098.097.252	3.514.762.204

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of The Report and Financial Statements Originally Issued in Turkish)

PEGASUS HAVA TAŞIMACILIĞI A.Ş. AND ITS SUBSIDIARIES

**CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER
COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2015**

(Amounts are expressed in TL unless otherwise stated.)

		Current year (Audited) 1 January- 31 December 2015	Prior year (Audited) 1 January- 31 December 2014
Profit or loss	Notes		
Sales	22	3,488,271,223	3,081,727,739
Cost of sales (-)	22	(3,057,267,802)	(2,618,267,190)
Gross profit		431,003,421	463,460,549
General administrative expenses (-)	23	(104,211,873)	(82,933,933)
Marketing expenses (-)	23	(149,815,601)	(133,117,559)
Other operating income	24	69,703,759	82,330,954
Other operating expenses (-)	24	(3,144,484)	(5,038,160)
Operating income		243,535,222	324,701,851
Income from investing activities	25	17,619,167	7,426,984
Share of investments income accounted for using the equity method	4	2,610,196	1,169,612
Operating income before financial expense		263,764,585	333,298,447
Financial income	26	86,092,003	51,162,355
Financial expense (-)	26	(167,477,218)	(248,786,906)
Income before tax		182,379,370	135,673,896
Tax (expense)/income		(70,515,497)	7,632,694
Current tax expense	28	(17,908,212)	(3,958,644)
Deferred tax (expense)/income	28	(52,607,285)	11,591,338
Income for the year		111,863,873	143,306,590
Net income attributable to:			
Shareholders' of the parent		113,125,704	143,341,828
Non-controlling interest		(1,261,831)	(35,238)
		111,863,873	143,306,590
Earnings per share (TL)	29	1,11	1,40
Other comprehensive income/(expense)			
Items not to be reclassified to profit or loss			
Actuarial gains/(losses) on defined benefit plans	27	(3,965,618)	-
Deferred tax effect	27	793,124	-
Items to be reclassified to profit or loss			
Currency translation differences		146,923,530	(49,187,920)
Cash flow hedge	27	44,945,630	(98,021,005)
Deferred tax effect	27	(8,989,126)	19,604,201
Other comprehensive income/(expense)		179,707,540	(127,604,724)
Total comprehensive income		291,571,413	15,701,866
Total comprehensive income attributable to:			
Shareholders' of the parent		294,154,018	15,599,011
Non-controlling interest		(2,582,605)	102,855
		291,571,413	15,701,866

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of The Report and Financial Statements Originally Issued in Turkish)

PEGASUS HAVA TAŞIMACILIĞI A.Ş. AND ITS SUBSIDIARIES**CONSOLIDATED BALANCE SHEET
AS OF 31 DECEMBER 2016**

(Amounts are expressed in TL unless otherwise stated.)

	Notes	Current year (Audited) 31 December 2016	Prior year (Audited) 31 December 2015
ASSETS			
Current assets		1.459.825.834	1.833.732.173
Cash and cash equivalents	35	692.270.625	954.974.093
Trade receivables	6	212.269.499	294.629.623
<i>Trade receivables from third parties</i>	6	212.269.499	294.629.623
Other receivables	7	118.760.830	189.515.187
<i>Other receivables from related parties</i>	5	1.097.807	278.844
<i>Other receivables from third parties</i>		117.663.023	189.236.343
Derivative financial instruments	30	1.127.368	2.341.144
Inventories	8	24.361.722	13.364.708
Prepaid expenses	9	399.994.707	347.664.779
Current income tax assets	27	3.586.742	29.034.468
Other current assets	19	7.454.341	2.208.171
Non-Current assets		4.158.192.161	2.264.365.079
Other receivables	7	21.031.698	29.274.800
<i>Other receivables from third parties</i>	7	21.031.698	29.274.800
Investments accounted by using the equity method	3	23.969.467	20.745.960
Property and equipment	10	3.848.615.403	2.113.308.165
Intangible assets	11	20.357.729	14.568.673
Prepaid expenses	9	237.363.891	77.827.374
Deferred tax assets	27	6.853.973	8.640.107
TOTAL ASSETS		5.618.017.995	4.098.097.252

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of The Report and Financial Statements Originally Issued in Turkish)

PEGASUS HAVA TAŞIMACILIĞI A.Ş. AND ITS SUBSIDIARIES

**CONSOLIDATED BALANCE SHEET
AS OF 31 DECEMBER 2016**

(Amounts are expressed in TL unless otherwise stated.)

	Notes	Current year (Audited) 31 December 2016	Prior year (Audited) 31 December 2015
LIABILITIES			
Current liabilities		1.038.827.055	991.845.572
Short term financial liabilities	31	-	6.826.527
Short term portion of long term financial liabilities	31	338.293.216	201.887.265
Trade payables	6	317.877.743	245.899.093
<i>Trade payables to related parties</i>	5	<i>1.455.390</i>	<i>1.013.200</i>
<i>Trade payables to third parties</i>		<i>316.422.353</i>	<i>244.885.893</i>
Employee benefit obligations	17	24.600.271	12.636.938
Other payables	7	32.220.476	12.043.950
<i>Other payables to third parties</i>	7	<i>32.220.476</i>	<i>12.043.950</i>
Derivative financial instruments	30	-	178.165.534
Deferred income	9	302.378.913	300.686.908
Short term provisions		23.243.506	29.034.306
<i>Short term provisions for employee benefits</i>	17	<i>12.166.104</i>	<i>26.058.356</i>
<i>Other short term provisions</i>	15	<i>11.077.402</i>	<i>2.975.950</i>
Other current liabilities	19	212.930	4.665.051
Non-Current liabilities		3.009.869.595	1.653.520.051
Long term financial liabilities	31	2.338.272.374	1.206.722.990
Deferred income	9	6.660.918	9.831.545
Long term provisions		431.155.469	232.991.886
<i>Long term provisions for employee benefits</i>	17	<i>8.875.253</i>	<i>10.664.601</i>
<i>Other long term provisions</i>	15	<i>422.280.216</i>	<i>222.327.285</i>
Deferred tax liabilities	27	233.780.834	203.973.630
SHAREHOLDERS' EQUITY		1.569.321.345	1.452.731.629
Equity attributable to shareholders' of the parent		1.575.439.911	1.455.437.269
Paid-in share capital	20	102.272.000	102.272.000
Share premiums on capital stock		455.687.025	455.687.025
Effects of business acquisition		29.504.957	29.504.957
Other comprehensive income/expense not to be reclassified to profit or loss			
Actuarial gains/(losses) on defined benefit plans	26	(3.305.232)	(3.172.494)
Other comprehensive income/expense to be reclassified to profit or loss			
Currency translation differences	26	638.375.994	406.940.383
Hedge fund	26	291.850	(22.138.754)
Restricted profit reserves		5.016.306	490.332
Retained earnings		481.327.846	372.728.116
Net income/(loss) for the year		(133.730.835)	113.125.704
Non-controlling interest		(6.118.566)	(2.705.640)
TOTAL LIABILITIES AND EQUITY		5.618.017.995	4.098.097.252

The accompanying notes form an integral part of these consolidated financial statements.

(Convenience Translation of The Report and Financial Statements Originally Issued in Turkish)

PEGASUS HAVA TAŞIMACILIĞI A.Ş. AND ITS SUBSIDIARIES

**CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER
COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2016**

(Amounts are expressed in TL unless otherwise stated.)

		Current year (Audited) 1 January- 31 December 2016	Prior year (Audited) 1 January- 31 December 2015
Profit or loss	Notes		
Sales	21	3.707.471.135	3.488.271.223
Cost of sales (-)	21	(3.511.301.803)	(3.054.983.806)
Gross profit		196.169.332	433.287.417
General administrative expenses (-)	22	(150.565.126)	(106.495.869)
Marketing expenses (-)	22	(182.641.780)	(149.815.601)
Other operating income	23	56.376.669	95.525.619
Other operating expenses (-)	23	(25.293.898)	(3.144.484)
Operating (loss)/income		(105.954.803)	269.357.082
Income from investing activities	24	25.860.568	17.619.167
Share of investments income accounted for using the equity method	3	2.580.188	2.610.196
Operating (loss)/income before financial expense		(77.514.047)	289.586.445
Financial income	25	34.584.113	60.270.143
Financial expense (-)	25	(100.739.642)	(167.477.218)
(Loss)/profit before tax		(143.669.576)	182.379.370
Tax income/(expense)		7.486.578	(70.515.497)
Current tax expense	27	-	(17.908.212)
Deferred tax income/(expense)	27	7.486.578	(52.607.285)
(Loss)/income for the year		(136.182.998)	111.863.873
Net (loss)/income attributable to:			
Non-controlling interest		(2.452.163)	(1.261.831)
Shareholders' of the parent		(133.730.835)	113.125.704
		(136.182.998)	111.863.873
(Loss)/gain per share (TL)	28	(1,31)	1,11
Other comprehensive income			
Items not to be reclassified to profit or loss			
Actuarial gains/(losses) on defined benefit plans	26	(165.923)	(3.965.618)
Deferred tax effect	26	33.185	793.124
Items to be reclassified to profit or loss			
Currency translation differences		230.474.848	146.923.530
Cash flow hedge	26	28.038.256	44.945.630
Deferred tax effect	26	(5.607.652)	(8.989.126)
Other comprehensive income		252.772.714	179.707.540
Total comprehensive income		116.589.716	291.571.413
Total comprehensive income attributable to:			
Non-controlling interest		(3.412.926)	(2.582.605)
Shareholders' of the parent		120.002.642	294.154.018
		116.589.716	291.571.413

The accompanying notes form an integral part of these consolidated financial statements.