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COMPARATIVE PERFORMANCE ANALYSES OF AIRLINE COMPANIES: EVIDENCE FROM EASYJET AND NORWEGIAN DURING 2014-2018

Bachelor's thesis

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I hereby declare that I have compiled the paper independently
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ABSTRACT

The aim of this study is to find out how two airline companies with same business plan and operating region differ based on their financial performance for the past five years and try to explain the reasons causing the differences. To conduct that part of the research, theoretical part reveals how the airline industry has developed to its current state and its special characteristics. The study indicates that EasyJet's financial performance is good even on the industry standards, while Norwegian has struggled on almost every aspect of their business and if they cannot turn their operation profitable, the company will go bankrupt without external financial help. The study also indicates that over aggressive growth-strategy can be financially life-threatening as the Norwegian's example shows.

Keywords: Airline industry, Low-cost carrier (LCC), key financial ratios, comparative analysis.

INTRODUCTION

Low-cost carriers carry nowadays nearly as much passengers as traditional legacy airlines and at the same time, the airline industry is making highest profits ever, for successive years from 2010 onwards. Still, there has been many airline companies struggling financially or went bankrupt at the same time. Air Berlin, Monarch and Germania just to name a few airlines that have ceased operations during this period of high profitability to the industry. As the low-cost carriers account for 40% of the seats filled in Europe, which makes the selection of EasyJet and Norwegian to this research justified. Additionally, EasyJet could be described as a textbook example of a well-managed airline and in the other hand Norwegian, based on its latest financial results, the opposite of EasyJet. There has been little or no research on the differences between well managed, profitable airlines and the financially struggling airlines.

The aim of thus bachelor's thesis will therefore analyse the differences between the two companies operating in the same region and with same business plan with substantially different financial results and use the key financial indicators to execute the research. The aim will be fulfilled through answering the following research questions:

1. How has the airline industry developed to the point where it is now?
2. How the selected airline companies differ in terms of financial ratios?
3. What decisions have caused the difference?

To be able to answer these research questions, a literature review is conducted to establish the theoretical background and then the comparative analysis based on the financial statements will be executed using key financial ratios and airline specific ratios. The result and analysis will be presented in the third chapter along with graphs.

In Chapter 1, the theoretical background and the important characteristics of the airline industry will be presented. Short overview of the development of the markets, characteristics and factors affecting the operations of the selected companies.

Chapter 2 clarifies the methodology of the research, including the description of the ratios used to analyse and comparing the two companies, data collection and once more the objectives of the research.

In Chapter 3, the results of the financial ratio calculations will be presented and analysed, and the two companies will be compared. Discussion part in the end of chapter 3 will present author's opinions and the synopsis of the analysis in chapter 3. The last part of the paper will be the conclusion.

1. THEORETICAL FRAMEWORK & BACKGROUND

In order to answer the research questions of this thesis, background information of the industry will be presented in this chapter. The information is gathered from various sources of literature. It is essential to have the knowledge about the development of the industry, in order to understand how the current markets and airline companies work.

1.1. Airline industry and its development

Airline industry provides service to practically every country in the world. The development of commercial aviation has given the world the chance to globalize as it has. The impact of airline industry to the world economy is significant, for example each day, $17.5 billion of goods travel by air, which is 35% of all world trade. In 2017, 4.1 billion passengers were carried by over 1300 airlines of the world. Additionally, 10.2 million people work directly in aviation industry only to name few numbers to visualize the size of the industry (ATAG, 2019). The modern globalized world simply could not operate without the airline industry. Between years 1973 and 2017, the average growth of the number of airline passengers has been 5.43% per year (IATA, 2019).

1.1.1. Early airlines

The first airline, DELAG, Deutsche Luftschiffahrts-Aktiengesellschaft was founded with government assistance on November 16, 1909. It operated with airships and their headquarters were in Frankfurt, Germany. First airline operating the traditional fixed wing aircraft started operating on January 1, 1914 and the route was a short domestic flight in Florida (Michaels, 2012). The oldest airlines still existing are KLM (Netherlands, 1919), Avianca (Colombia, 1919) and Qantas (Australia, 1921). In the early days, there were many small airline companies which struggled to compete with the airlines that had government subsidies and many of them merged in to the bigger ones, and thus is how for example the Imperial Airways, the predecessor of British Airways, was formed. Airline industry continued its growth even through the great depression and remained profitable until the second world war (Grant, 2017).

1.1.2. Post war development

The jet technology along with the pressurization of the cabin, which were developed during the second world war, were the next big steps in the airline industry. Jet airplanes became to

commercial use in the 1950's and this allowed the travel times to decrease significantly. The technological development also meant that the airplanes became not only faster, but they could also travel longer distances and for example enabled the non-stop services from London to New York in the late 1950's (Rouvinen et al, 2009). At the time, airline companies in the United States were publicly listed companies, in contrast to the most European companies, which were owned by the governments and based on the old airlines. Airline industry became highly regulated and the industry was highly subsidized, which made the industry distorted and for the smaller companies difficult to compete. The high regulatory made flying safer but kept it also expensive. In 1957, there was 2790 commercial airplanes and 87 million passengers. In the 1960's there became many new innovations to the industry, even faster and more efficient planes and most notably the Jumbo jet, Boeing 747 was introduced. At this time, also the first low-cost airlines were introduced. The development was not parallel in the Soviet Union and the developing countries, soviet planes were not as efficient as the western counterparts and lacked reliability, which in aviation is vital to the safety. Oil crisis in the 1970's made the fuel expenses higher, which lead to higher ticket prices for the consumers (Grant, 2017).

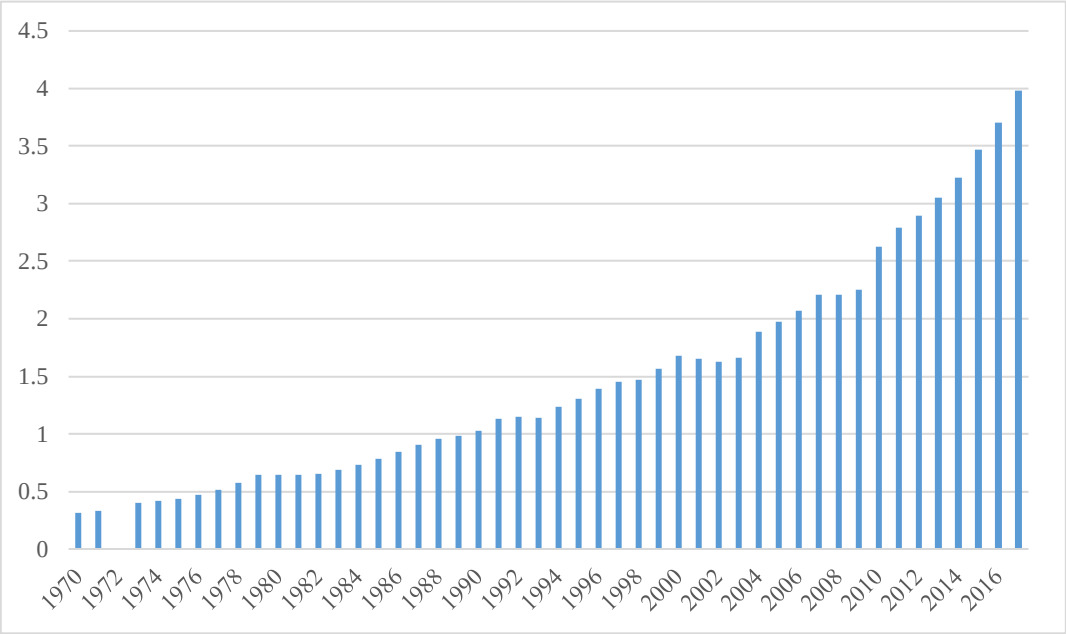

Figure 1. Growth of the airline passengers between 1970-2016 in billions.

Source: The World Bank (2017)

1.1.3. Deregulation and higher competition

In the 1980's, decreasing oil prices and liberalisation of the regulatory in the United States lead to tighter competition between the companies and they were desirable in the eyes of investors,

although the dividend yields were known to be low compared to other industries. European airline industry started its deregulation in the 1990's and the number of airlines started to rise and the low-cost airlines such as Irish Ryanair became more competitive. The western aircraft manufacturing had become a race of three big companies, Boeing, Airbus and McDonnel-Douglas and after the merger of Boeing and McDonnel-Douglas in 1997 there has been two main manufacturers in the commercial aircraft market (Niiranen,2010). In 2000's major airlines in Europe improved their financial states by mergers, for example KLM and Air France became one company in 2004 and by subsidies from the governments (Alitalia). Many companies went bankrupt because of the tightening competition, for example Swissair, but started operating with a new name Swiss with the financial help of Swiss government. Especially traditional American companies have suffered from increasing labour expenses and the terrorist attacks in 2001. Between 2000 and 2005 US airlines lost $30 billion. More than 60 airlines have filed for the Chapter 11 bankruptcy protection and most of them have ceased operations since. US government bailed out the biggest airlines such as American Airlines and United with large subsidies (Morrison, 2010).

1.2. Development of airline market

Two main characteristics of airline industry, which makes it dynamic and exciting and are important in understanding the economies of airline companies, are: very homogeneous product and it cannot be stored. Airline industry has evolved significantly during the time. The development of the market was driven by the technological innovations up to 1970's as there were no significant recessions or changes in the regulatory. The oil crisis in the 1970's slowed down the growth of passenger numbers and the companies suffered financially from the increasing expenses. After United States started the deregularisation and liberalisation of airline industry, most of the world followed. Number of airline passenger grew and more importantly to the consumers, the average real fare of tickets has declined significantly, and the real cost of air travel has fallen by 1.7% per year after 1970 (IATA, 2015). In 2013 ticket fares were 40% below the level of 1978 in constant prices (Airlines for America, 2014). Also, the entry on low-cost carriers (LCC) have impacted the pricing strategies of the traditional airlines as well. (Doganis, 2001)

As it can be seen from the Figure 1, relative drops in passenger traffic have been the deepest after the IT-bubble in 2000-2001 combined with the terrorist attacks in 2001 and the 2008 financial

crisis, but after both cases the traffic has returned to trend level within 4 years. The impact of these occurrences, as well as the recession in the early 1990's, can be seen from the world airline net profits (Figure 2), as the cumulative losses have been over 20 billion in each downturn. These statistics show that the airline industry is cyclical and highly volatile, and it follows the state of the general state of the economy and often the impacts are even more severe than in other industries (Niiranen, 2010).

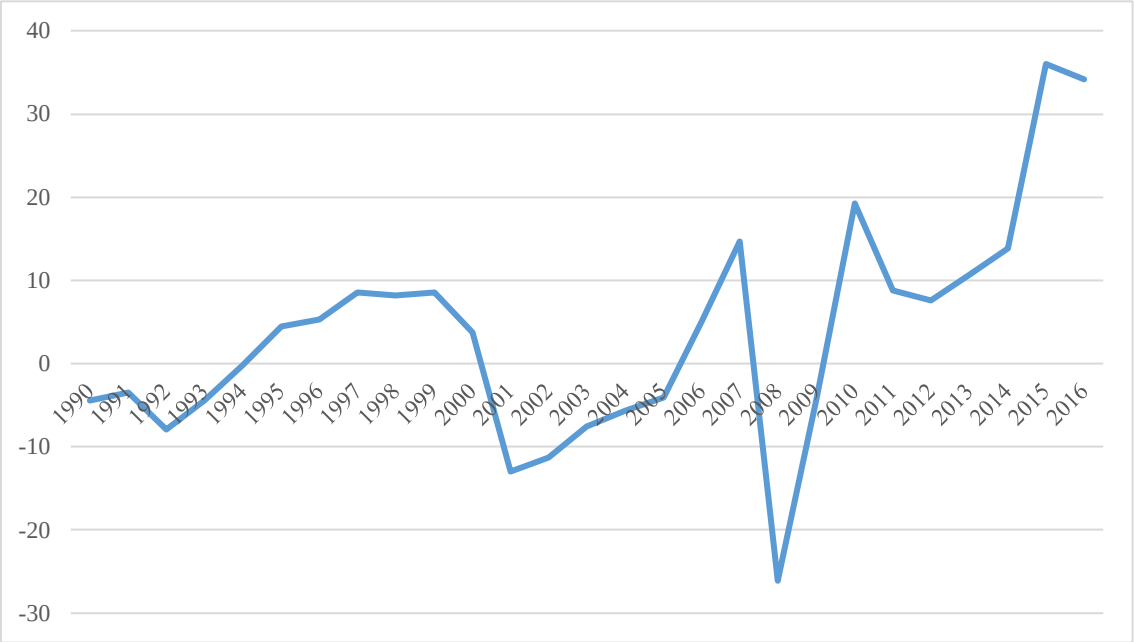

Figure 2. Net profits of the world's airline between 1990-2016 in US$ billions.

Source: IATA (2018)

1.2.1. Different airline business models

Airline companies have generally operated according to certain principles which have differed from each other significantly. There are four different business models which are used in passenger airlines.

Full Service Network Carrier (FSNC) or "legacy airline", is an airline that focuses on providing great variety of pre-flight and in-flight services. They offer also different service classes, such as first class, business class, etc. and connecting flights. In most countries, the national carrier or former national carrier operate as an FSNC. For example, Finnair, Lufthansa and British Airways are FSNC carriers. In most of the countries, the (former) national carriers are at least for some extent privatized and in the larger countries often fully, except Africa and Asia, where in many countries only one government-owned FSNC operates. FSNCs are typically operating with

different aircraft types, varying from small regional jets to large wide-body long range aircraft. Other characteristics include domestic, continental and worldwide flights, hub-and-spoke network (feeder flights from smaller airports to main airports), wide range of origin and destinations with high frequencies, 2-4 different service classes and complex pricing strategies and almost all of them have a frequent flyer program (Doganis, 2019).

Low Cost Carriers (LCC) are airline companies which focus on cost reduction in order to have the cheapest tickets on the markets they operate. LCC's typically use young and homogenous fleet of medium sized aircraft to keep the costs of fuel, maintenance, staff, overheads and in some cases capital costs, as low as possible. They use dense seating in their aircraft to have as many passengers as possible on each flight with low level of specialisation and conveniences in order to lower unit costs of all categories as the fixed costs are divided between higher number of passengers. Other characteristics include minimization of ground times and delays by serving smaller and more remote airports with lower traffic and lower airport fees and flying only point-to-point flights without connections to maximize the aircraft utilization (DLR, 2008). Tickets are sold directly online, and all in-flight services are cut out to lower expenses. Pricing strategies used by LCCs are very dynamic, with significant discounts when tickets are booked very early in advance and they also sell other products and on-board services in their websites. Typically, LCCs have flown short- or medium-haul routes, but recently there have been expansions in the routes, for example Norwegian started to fly from Europe to multiple destinations in United States with varying financial results. LCCs are the best example how consumers have benefitted from the deregulated markets, as there is more competition and thus the prices are low, which has generated a new customer segment as consumers that could not have afforded to fly on FSNC's (Doganis, 2019).

Holiday Carriers are airline companies that fly only holiday flights and have tourists as passengers and are often scheduled flights albeit typically seasonal services. Before, holiday flights were included to the holiday packages sold by tour operators and were then operated by so called "charter airlines". Typically, holiday carriers focus on LCC-like operations by lowering the costs per seat by direct point-to-point services using homogeneous fleets with high-density seating, but unlike LCCs, holiday carriers have also large wide-body aircraft in their fleets. Holiday carriers also have onboard services, such as meals, newspapers and entertainment systems. Holiday carriers generally charge average cost prices with seasonal surcharges or discounts (Pels, 2008).

Regional airlines, called also feeder airlines, have typically restricted their flight routes to geographically limited area usually serving as feeder airlines to FSNCs as their partner- or subsidiary. Regional airlines use small aircraft with maximum of 100 seats and thus the unit costs are typically higher than in the other business models and that is why they often fly on behalf and/or use the brand of the FSNC they fly for. Good example is Cityjet, which flies in northern Europe feeder flights for SAS and use the SAS brand in their aircraft (DLR, 2008).

Business model which combines strategies from the models mentioned above, is called hybrid carrier. Because airline market is dynamic many smaller airlines are looking for market niches with business models which cannot be categorized to the traditional models. Now disbanded airline Air Berlin, was a so-called hybrid carrier (Halpern, Graham, 2017). In the past all-charter carrier started its EuroShuttle, a low-cost service from numerous of German airports to destinations like London, Rome and Milan, to protect them from seasonal peaks and lows in the leisure market (DLR, 2008).

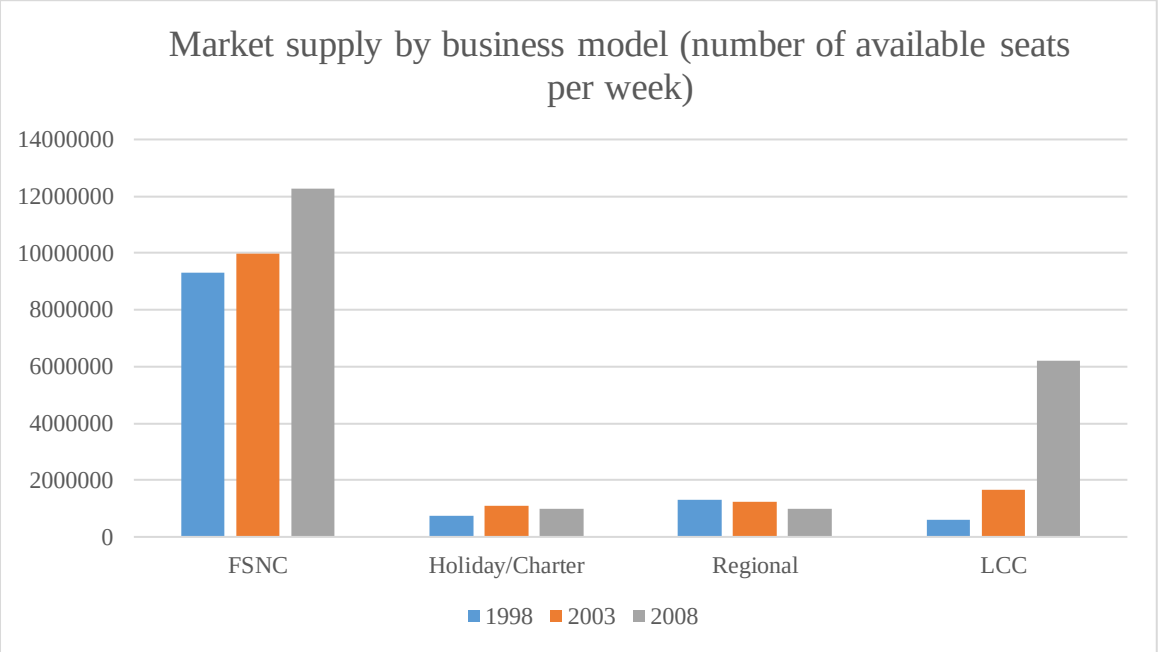

Figure 3. Market supply by business model by the number of available seats per week in European Union.

Source: IATA (2010)

As figure 3 indicates, airline market has developed more towards two main business models; full service network carriers and low-cost carriers. Especially the number of available seats by LCCs was ten times larger in 2008 than it was ten years earlier. The number of seats offered by hybrid

carriers is not shown in the graph because of the difficulties in categorizing such airlines (Doganis, 2019).

1.2.2. Airline alliances and frequent flyer-programs

One of the special features in the airline industry are the airline alliances, which is an important part of the industry and its development in the past 20 years. The trend of airline mergers to create bigger companies has started basically from the creation of airline alliances in the late 1990's, when the leading executives of airlines had a common will to increase the cooperation between companies and have alliances between them. The consolidation of the industry has been the trend for longer time now, and the mergers (for example KLM and Air France) and alliances demonstrate this trend. Star Alliance, SkyTeam and Oneworld are the three biggest and only global alliances in the world (Niiranen, 2010).

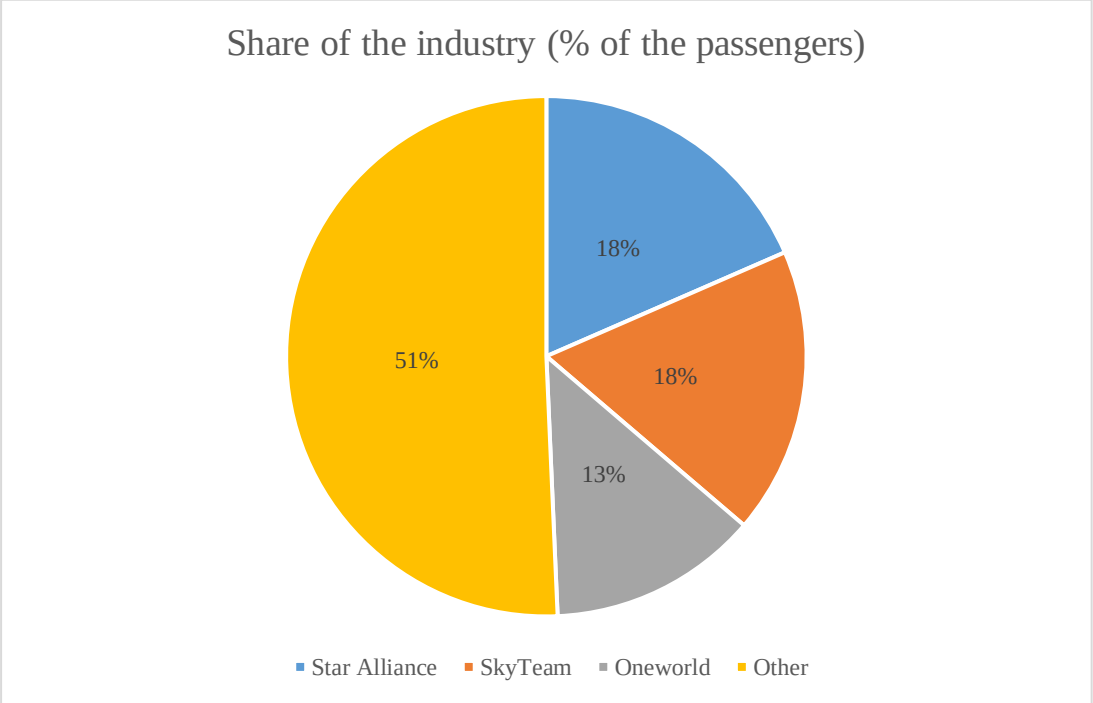

Figure 4. Share of the industry per alliance by the passenger volumes in 2017.

Source: Star Alliance (2019), SkyTeam (2019), Oneworld (2019), Author's calculations

As it can be seen from the figure 4, the three global alliances had almost half of the market share in terms of number of passengers in 2017. Almost all legacy airlines belong to one of the three

alliances, only few airline companies from the middle-east are operating on their own, for example Emirates. Benefits of airline alliances have been disputed on, but at least on some extent the partner airlines benefit from access to new market via the network of the alliance, increased number of destinations, increased marketing power, cost advantages achieved by sharing property at the airports, increased efficiency from shared scheduling and common use of sales channels and ground personnel. For the airlines that belong into an alliance, there is also less competition compared to the ones operating alone. For passengers, the development of alliances is most notable by frequent flyer-programs and the code sharing the partner airlines exercise (Bows et al, 2009). Frequent flyer-programs are essentially loyalty programs that increase customer loyalty by rewarding customers for flying with the same airline or with partner airlines from the same alliance. The more you fly, the more rewards you get from the airline. Rewards usually consist of free upgrades from economy class to business, free-flights and access to airport lounges. Code sharing is a business agreement usually between the airlines of the same alliance, which allows the members of the alliance to market and sell a flight under their own airline designator and flight numbers. One airline from the alliance operates the flight, while all airlines from the alliance can market and sell the seats as their own (Doganis, 2001)

1.3. Characteristics of airline finance

In this chapter, the main characteristics of airline finance and the main reasons behind profitability will be presented. This information makes the analysis of financial data easier to execute. Information is gathered from various sources of literature and data from the administrative organizations such as The International Air Transport Association (IATA) and International Civil Aviation Organization (ICAO).

1.3.1. Airline's cost structure

Just like in any other industry, airline companies have to use numerous inputs such as labour, fuel capital expenditures and materials to produce their services. Of these costs mentioned, fuel is the largest cost for airlines, depending on airline business model, fuel costs account for 20-50% of the total cost the airlines have. For LCC's such as Ryanair and EasyJet, fuel costs are between 40-50% percent of total costs and for FSNC's like British Airways and Finnair fuel cost account for 20 to 30 percent of the total costs. The decline of oil prices after 2014 has improved the financial results of airlines in the recent years but the price has started to trend upwards in the 2 months of 2019

(Barbot et al, 2008). As the fuel costs differ between countries, some airlines may have some competitive edge on others depending on the fuel price of their base country. Although fuel prices are not controllable by the airlines, they can save on fuel costs by operating with newer and more fuel-efficient aircrafts (Gillen, Morrison, 2015). Some airlines use fuel hedging to reduce the exposure to sudden fluctuations in fuel prices. Purchased materials and services are categorised as catch-all expenses (Berghöfer, Lucey, 2014).

When fuel prices are at low levels, labour costs may represent the largest single cost element for many airlines with a share of 35 to 40 percent of total operating costs and even with high to normal fuel prices, it may still be so for North-American carriers. For airlines operating in Asia, labour costs are on average 15 to 25 percent of the operating costs (Vasigh et al. 2008).

Aircraft cause not only capital- but also operating costs for the airline. Airline managers have to consider if the airline will operate with a heterogeneous fleet, which causes bigger costs on maintenance and pilot training or to have only few different models in their fleet. Also, the age of the fleet has an impact on the maintenance costs and older aircraft are also less fuel efficient and so they are more expensive to operate while they are cheaper to purchase or lease (Holloway, 2008).

Capital input in aircraft and ground equipment and property are the two components of which the airlines capital input consists. Aircraft lease rates are the same to all airlines and therefore the differences in aircraft capital costs between different airlines are caused by the structure of their fleets (Halpern, Graham, 2017).

Table 1. Structure of airlines' operating costs in 2017.

Structure of costs- IATA member airlines, 2017	
Direct operating costs	
1. Flight operations-total	47,1%
Flight crew-salaries,expenses, training	(8,8%)
Fuel and oil	(22,8%)
Airport and en-route charges	(6,7%)
Aircraft rental, insurance, etc.	(7,0%)
Other flight operations expenses	(1,8%)
2. Maintenance	9,0%
3. Depreciation-aircraft	7,0%
Total:	63,1
Indirect operating costs	
4. Station/ground expenses	7,8%
5. Passenger services (including cabin crew)	8,2%
6. Ticketing, sales and promotion	6,7%
7. Administrative and other operating costs	14,2%
Total:	36,9%
Total operating costs:	100%

Source: IATA (2018)

1.4. External economic factors affecting EasyJet and Norwegian

In this chapter, the main factors affecting the operations of the two companies are discussed. Both companies operate in Europe, and the importance of their home markets is not as important as the

economic situation of Europe, as most of their flight routes are between cities in whole Europe, not only for example in Norwegian's case from Norway to Germany.

For air travel, the main demand driver, according to EU Report (2017), is the economic growth and there is clear correlation between GDP growth and Available Seat Kilometres (ASK) growth, which is measure of "production" for airlines, as it measures the available seats multiplied by the flight distance. As the GDP growth rate increased from 0,257% in 2013 to 1,784% in 2014, the growth rate of ASK of European carries followed at nearly same rates (World Bank, 2019). Since then, the GDP growth has been between 2,5% to 1,8 % and the ASK growth rates have fluctuated a little above the growth of GDP . (Pearce, 2019)

For both companies, UK is an important base, as Norwegian has numerous routes to and from UK and over 1000 UK based cabin- and flight crew personnel (Norwegian, 2019). EasyJet has its headquarters in London Luton Airport and most of its nearly 11000 employees are based in UK, although they have employees also across Europe. Brexit will have, regardless if it's "hard" or "soft" Brexit, and already has, affected the operations of both companies. EasyJet announced in 2017 that they will open new headquarters in Austria to enable its operations after Brexit. EasyJet announced earlier this year, that the uncertainty caused by Brexit will decrease their profitability in 2019 from the previous years. According to EasyJet's CEO Johan Lundgren (2019), the questions without answers in the Brexit situation reduce the demand of flights and prices. At the same time the company expects their costs to increase by over 18 percent from 2018 (Arvopaperi, 2019). Both of the companies have and will have to plan their strategies all over again, after the outcome of the Brexit clarifies. (Pearce, 2019)

One of the biggest individual factors to airline company's profitability is the price of fuel, as it accounts on average for over 20% of the operating costs for the airlines (IATA, 2018)

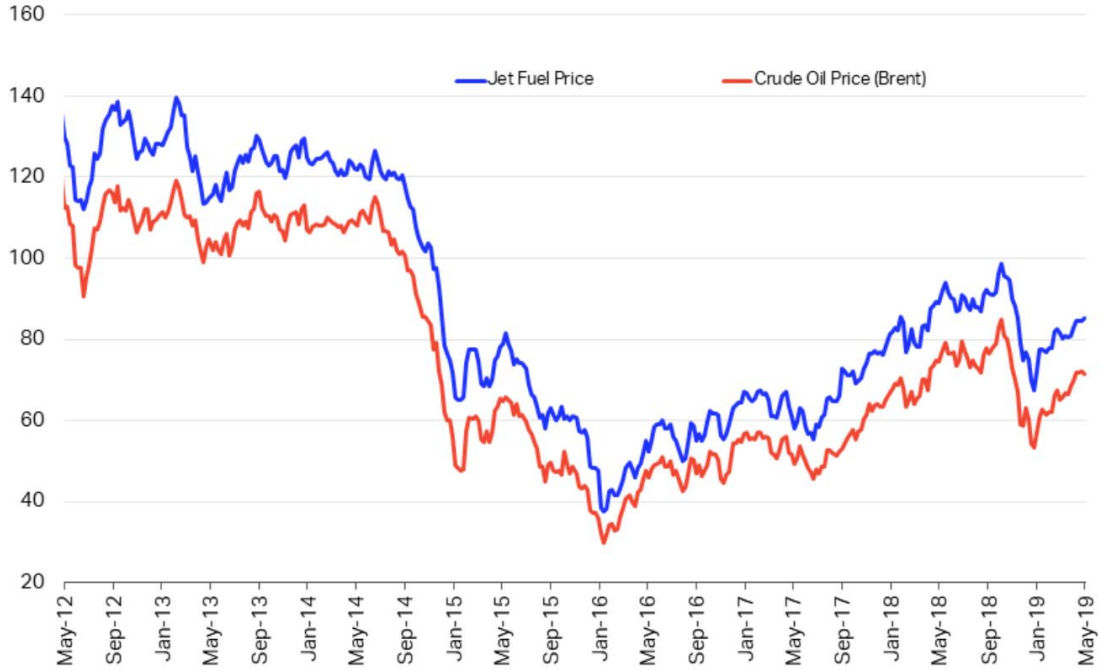

Figure 5. Development of fuel prices in dollars per barrel

Source: IATA, 2019

As it can be seen from figure 5, price of one barrel of jet fuel decreased significantly during 2014 and beginning of 2016. This helped both companies significantly regarding their profitability. After 2016, fuel prices rose steadily until the end of 2018 after they have sharply dropped. During the time period of this study, EasyJet has managed to make profits regardless of the fuel price, which indicates of good cost management, as Norwegian has had difficulties during the whole time. (IATA, 2019)

2. Research methodology

In this chapter, the main objectives, methods and execution of the research are presented promptly. The two companies chosen to this comparative analysis are Norwegian and EasyJet, because both of them are low-cost carriers (LCC) so their business plan is fairly similar and therefore the financial data is comparable. By selecting these two airlines, the research question, "Why certain airline companies are struggling financially, while the airline industry is making largest profits ever and other airlines are profitable?" could be answered, because Norwegian has struggled financially in recent years and EasyJet has been profitable while both operate mainly in Europe and offer same kind of services. Although both are big airlines, EasyJet is bigger of the two with fleet size over 300 aircraft and over 60 million passenger per year compared to Norwegians 165 aircraft and 30 million passengers per year.

2.1. Objective of the research

The objective of this research was to find reasons why certain airline companies (Norwegian) are struggling financially, while the airline industry is making largest profits ever and other airlines (EasyJet) are profitable, find out how the airline market has developed and to analyse the differences between the two companies based on the financial information and ratios calculated based on the financial data.

2.2. Research methods

Research method used in this research were both quantitative and qualitative: literature, studies, statistics and financial data. The finacial data is gathered from Morningstar webpage and companies financial reports, which offers second-hand financial data from previous 5 years, which is extensive enough to make analysis for this research. Industry averages are from IATA webpages.

2.2.1. Comparative financial ratio analysis

Financial ratio analysis is a quantitative method to study selected companies' liquidity, operational efficiency, profitability and valuation by calculating the needed ratios from the financial statements. Comparative ratio analysis is an efficient way to compare the performance of

companies between them, and also to the industry averages (Salmi, Martikainen, 1994). The data can be from current- or historical financial statements and it gives insight to different interest groups whether the company is improving its performance, or vice versa. Comparative ratio analysis should be done within the industry or peer groups, as the companies in the same industries typically have similar capital structures and investments in assets, and because of this, the ratios are comparable between them. (Koen, Oberholster, 1999)

To compare the two companies, following ratios are used:

RETURN ON ASSETS

Return on assets (ROA) indicates the company's profitability in relation to its total assets. ROA indicates how efficiently the company is using its assets to generate revenue or earnings. ROA is presented as a percentage. It has to be remembered, that companies could have done substantial investments that may not started to generate income in the time period ROA is being calculated. When analysing ROA, it has to be remembered that it may vary substantially depending on the industry (Kallunki, Kytönen 2007).

Return on assets is calculated as follows:

$$Return\ on\ assets = \frac{Net\ Income}{Total\ Assets}$$

(Horngren et al. 2012, 739)

NET PROFIT MARGIN

Net profit margin is one of the most used profitability ratios to measure profitability of business activities to companies. It represents how much percentage of the sales has turned into profits. As all for-profit organizations aim to make profit from their business, a positive profit margin is essential to continue operations in the long-term and profit margin is a good ratio to measure profitability and it can be used for comparing companies against its competitors (Kitces et al. 2015).

Profit margin is calculated as follows:

$$Net\ Profit\ Margin = \frac{Net\ Income}{Net\ Sales}$$

(Horngren et al. 2012, 739)

RETURN ON EQUITY

As equity generally means ownership, ROE represents how well the company rewards its shareholders for their investments into the company. As shareholders usually expect rewards for their investments, usually paid as dividends in listed companies, ROE tells how well the management have generetad profits with the investments of the shareholders (Salmi, 2000). ROE essentially indicates how much profit the company is able to generate on one dollar invested as well as the amount of solvency risk. For financially healthy companies, ROE should always be positive and the higher it is, the better. ROE should always be compared to the industry averages, as the percentages may vary substantially between different industries (Kallunki, Kytönen 2007).

Return on equity is calculated as follows:

$$Return\ On\ Equity = \frac{Net\ Income}{Stockholders\ Equity}$$

(Horngren et al. 2012, 740)

PROFIT MARGIN PER SEAT FLOWN

Profit margin per seat flown measures how much profit per seat airlines generate with the fleet of aircraft they have. As the costs of one flight are about the same whether the plane is full or only half filled, profit margin per seat measures how much profit the airline makes per every seat of all flights they have flown in a certain time span, regardless if all seats are sold or not. Higher the profit margin per seat flown is, the better the airline has managed to exceed their break-even load-factor, either with correct price setting or by managing to keep the costs per flight low enough to make profit with lower number of passengers. This ratio essentially tells how well the management of the airline has succeeded in choosing the right sized planes to every flight, keeping the number of flights optimal, setting ticket prices and managing to keep the expenses as low as possible.

Profit margin per seat flown is calculated as follows:

$$Profit\ margin\ per\ seat = \frac{Profit\ per\ seat}{Revenue\ per\ seat}$$

CURRENT RATIO

Current ratio is a widely used liquidity ratio and it measures how well the company is able to meet its current liabilities with the current assets the company has. Cash, inventory and receivables and other assets that can be converted into cash in 12 months are classified as current assets.

It depends on the industry what kind of current ratio is considered acceptable or good, but general rule is that a current ratio of 2:1 is good. Current ratio below 1 may indicate that the company has difficulties to meet their creditors obligations but a current ratio which is way higher than the industry average, may indicate from an ineffective use of assets, but in the airline industry, current ratios are often on close to 1. As airline companies don't have inventories, their current assets tend to be lower than many other industries, which then lowers the current ratio of the airline companies. (Palepu *et al.* 2004)

Current ratio is calculated as follows:

$$Current\ ratio = \frac{Current\ Assets}{Current\ Liabilites}$$

(Horngren et al. 2012, 733)

QUICK RATIO

Quick ratio is a measure of liquidity that indicates whether the company is able to pay its current liabilities with its most liquid, near-cash assets. Quick ratio can also be called acid test ratio, because it is a test for instant results. A quick ratio of 1 or above means that the company is able to get instantly rid of its current liabilities and the higher the ratio, the better the company's liquidity and financial health. (Ross *et al.* 1994).

In most industries, a quick ratio from 0,8 to 1 is generally thought to be acceptable (Horngren et al. 2012).

Quick ratio is calculated as follows:

$$Quick\ ratio = \frac{Cash + Short - term\ investments + Net\ current\ receivables}{Current\ liabilities}$$

(Horngren et al. 2012, 735)

DEBT TO EQUITY RATIO

The debt-to-equity (D/E) ratio is metric used to evaluate a company's financial leverage, which means the degree to which a company is financing its activities through debt compared to wholly owned funds. In other words, D/E measures the ability of shareholder equity to cover all of the outstanding debts the company has, in case of a business recession or downturn (Kharatyan *et al.*). A high D/E is not always bad, but it indicates that the company is aggressively financing its growth with debt, which is always risky. An acceptable D/E varies substantially between industries and airline industry is one of the industries with highest debt-to-equity ratios, caused by the capital intensity of the industry as large part of the aircraft are financed with debt. (Kallunki, Kytönen 2007).

Debt-to-equity is calculated as follows:

$$Debt - to - Equity = \frac{Total\ liabilities}{Total\ Shareholder's\ Equity}$$

(Horngren et al. 2012)

PRICE TO EARNINGS RATIO

The price-to-earnings ratio is a ratio which is used to measure a company's share price to its earnings per share (EPS). P/E ratio is used to determine if the company's shares are overvalued or undervalued and to compare companies of the same industry against each other. Shortly, P/E ratio presents what the market is willing to pay for one share based on the earnings per share. A high P/E ratio indicates that the company's share is overpriced compared to its earnings and investors are estimating higher growth in the future. A low P/E ratio compared to the industry indicates that the company's share is undervalued (Laitinen, 2003). Average P/E ratio in the airline industry is currently at 12,7, which is lower than for example the S&P 500's average P/E which is 22,11 (Yahoo Finance, 2019).

P/E ratio is calculated as follows:

$$Price - to - earnings = \frac{Market\ value\ per\ share}{Earnings\ per\ share}$$

(Horngren et al. 2012)

PRICE TO BOOK RATIO

Price-to-book ratio compares the company's share's market price to its book value. P/B ratio indicates, how markets value the company compared to the company's book value. Companies which have relatively poor growth estimations and low return on equity (ROE), the P/B ratio is usually low and vice versa. A high P/B ratio may also indicate that the role of equity is not vital to the company to make profit (Laitinen, 2003). P/B ratio is more relevant in industries which are capital intensive, like airline industry, because the equity of the company does not vary as much as the financial results do, which makes the P/B ratio a good indicator of the expensiveness or cheapness of the investment. An acceptable P/B ratio is dependent on the industry and the companies should be compared with companies in the same industry, as the capital structure may alter the P/B ratio, so it is incomparable. (Kinnunen et al, 2002)

Price-to-book ratio is calculated as follows:

$$Price - to - Book\ ratio = \frac{Market\ price\ per\ share}{Book\ value\ per\ share}$$

(Horngren et al. 2012)

ASK, RPK AND LOAD FACTOR

Available seat kilometers (ASK), is a metric of "production" for an airline as it is measure of available seat kilometers. It is calculated by multiplying the number of available passenger seats by flight distance. Revenue passenger kilometers (RPK) is basically a metric of how much of the available production is sold (Scheraga, 2004). RPK is calculated by multiplying the number of sold seats by flight distance. Load factor is just the relation of these two, it measures how much of the "production" is sold and it is presented as a percentage. Load factor is calculated by dividing RPK with ASK. (Norwegian, 2019)

2.3. Execution of the research

After gathering sufficient amount of financial data, the key financial indicators and ratios are calculated for each airline, EasyJet and Norwegian. This is followed by the comparison of the two airlines by using the ratios and making analysis based on the ratios and making conclusions based on the analysis.

3. Comparative analysis: EasyJet & Norwegian

In this chapter, the key performance indicators and financial ratios are presented for both companies and compared and analysed. The objective is to find differences and interpret the results. Also, the efficiency of operations is calculated and analysed. In airline industry, there are some specific ratios to compare the companies, such as revenue per seats flown, which is used in this comparative analysis to compare the two airlines.

3.1. Comparative profitability ratio analysis

In this chapter the most important profitability ratios will be presented and analysed based on the calculations made from companies' financial statements and visualized with graphs. The following ratios has been chosen as they present profitability of the companies and are commonly used in the airline industry. According to Bernstein (1983) profitability and sales revenues are most used metrics of companies' financial performance. These measures are important indicators to the investors and other interest groups of the financial state of the company and the ratios affect to their decision making.

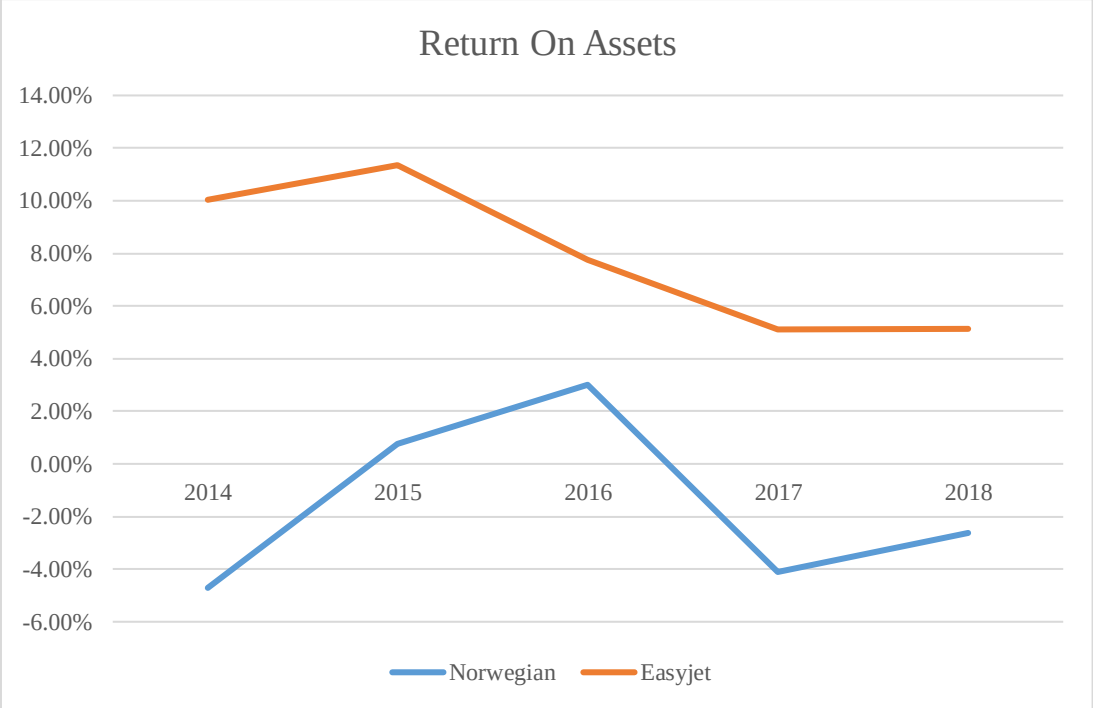

Figure 6. Return on assets

Source: Financial Statements

As it can be seen from Figure 6, EasyJet's ROA has been at a good level through the five-year period, although it has declined from over 10% in 2015 to 5% in 2018. Part of the declining ROA can be explained with the increase in fuel prices in the past two years, but they still managed to keep their ROA positive, which is financially crucial in the long term. Norwegian managed to increase their ROA from -4,71% to positive in 2015 and 2016 but have since struggled to generate revenue with their assets, which indicates poor asset management and difficulties in efficient use of aircraft and other assets. The negative ROA may also indicate that Norwegian has not been able to set their prices correctly or the load factor has been too low.

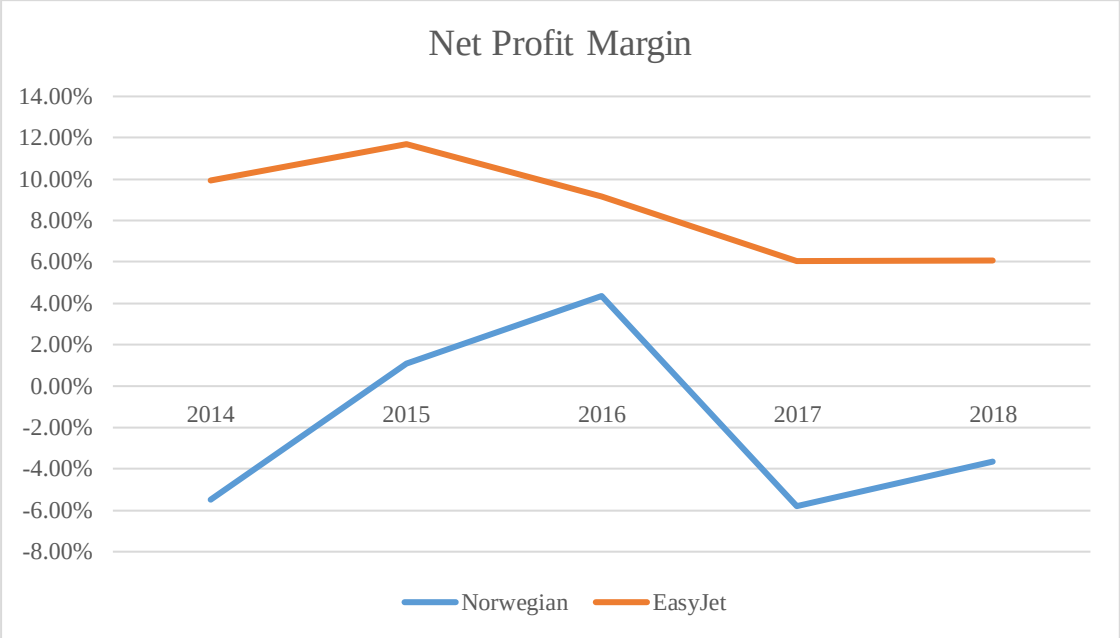

Figure 7. Profit margins

Source: Financial Statements

EasyJet's profit margins have been at a good level since 2014, as the average profit margin of the industry has been around 2% during this time (IATA, 2019). Between years 2014 and 2016, EasyJet's profit margins were around 10% and have since declined to 6% in the past two years, which still is a good profit margin compared to the industry and especially to Norwegian. Norwegians profit margin was -5,48% in 2014, which is extremely low, but they were able to make the company barely profitable in 2015 and 2016, but they have since had negative profit margins by -5,8% and -3,63% which in the long-term leads to inevitable bankruptcy if they are not able to increase their revenues or cut costs to make their profit margin positive.

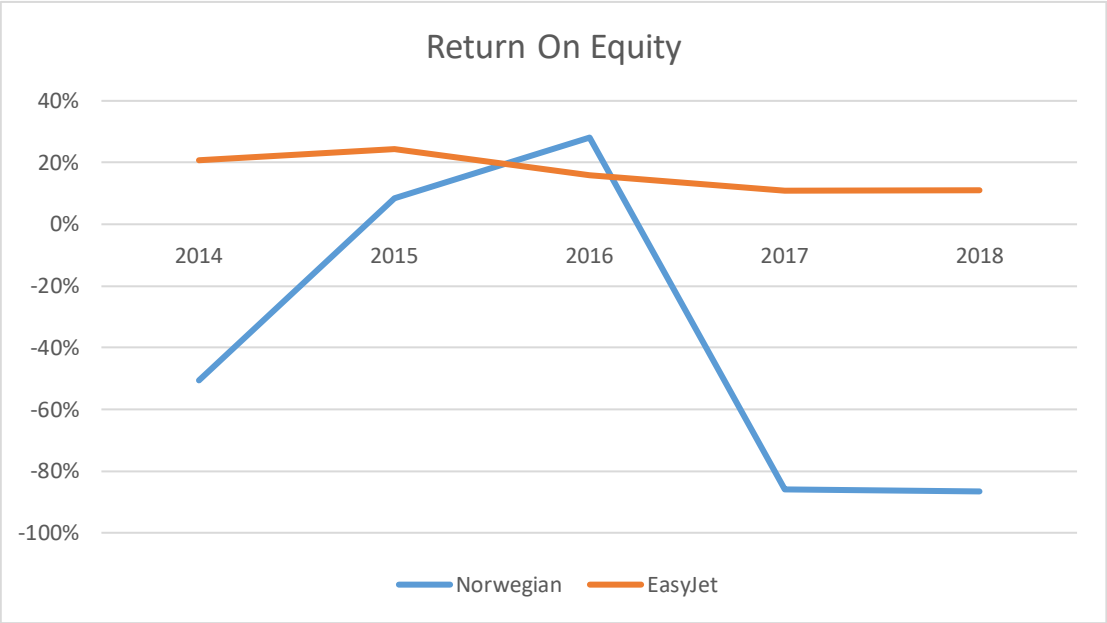

Figure 8. Return on equity

Source: Financial Statements

EasyJets return on equity has been on a exceptional level compared to the industry, and especially Norwegian. In 2014 and 2015 EasyJets ROE increased up to 24,37% which is a high return on equity in most industries and certainly in airline idustry. Again, the increase in fuel prices ans other expenses has increased EasyJet's expenses, which then leads to lower ROE as they have not been able to increase their net income in the same proportion and therefore EasyJets ROE has declined to 10,98% in 2018, which still is considered as good ratio in the airline industry. In the other hand, Norwegians return on equity for the past 5 years has been critically low, excluding years 2015 and 2016 when they managed to increase their ROE to 28,11%, as a ROE below 10% is considered poor (Kallunki, Kytönen 2007). Norwegians shareholders equity has dropped over 58% since 2016 which is caused at least partially by the dramatic rise of their total debt, which has more than doubled in the 5-year time span. At least at the moment, Norwegian return on equity for the past two years, which has been -86,05% and -86,60% respectively, indicates that they have serious issues on turning their operations profitable and earning profits for their shareholders. Norwegians extremely low ROE may complicate their financing by limiting external equity because the company does not seem to be a good investment according to their recent financial results.

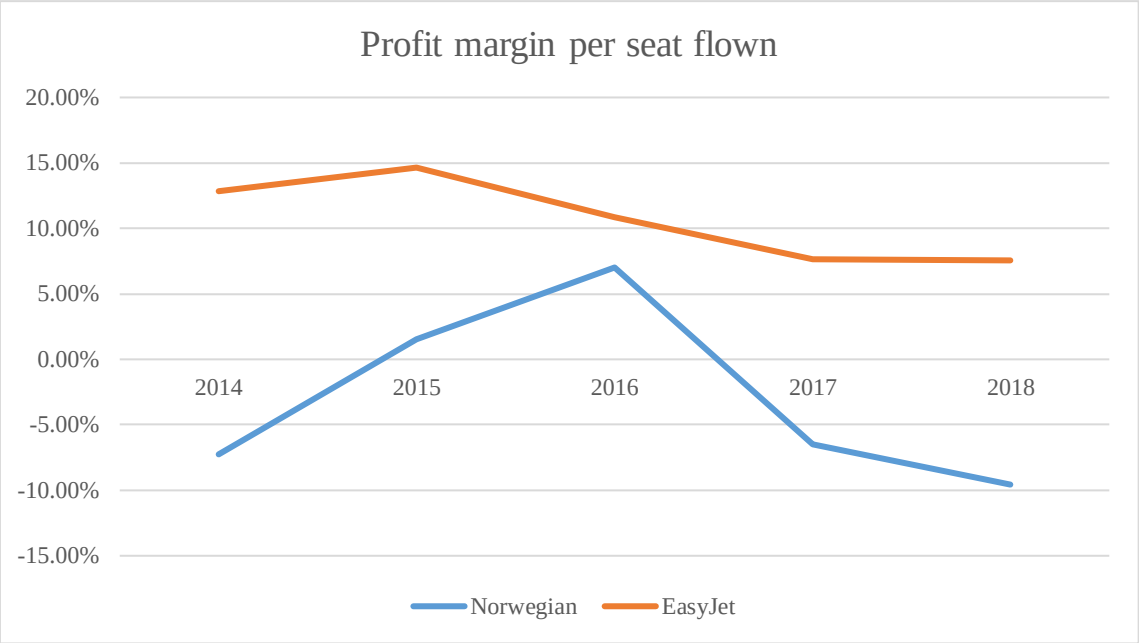

Figure 9. Profit margin per seat flown

Source : Financial statements

EasyJet has managed to keep its profit margin per seat flown at a high level in years 2014 and 2015, the latter being as high as 14,68%. According to EasyJet's financial reports, its load factor has been at good level in the past 5 years, being over 90% each year, which with successful price setting has been a positive factor in EasyJet's good financial performance. From 2016 onwards, the increase in the fuel price has increased also the expenses and as a consequence, the profit margin per seat has declined although EasyJet load-factors stayed at 91,6% and 92,6% in the past two years. This development shows the importance of keeping all the costs in which airlines can affect themselves as low as possible to maintain the operations profitable. Norwegian managed to increase their profit margin per seat flown from -7,23% in 2014 to positive in year 2015 and even higher to 7,02% in 2016 but since then the profit margin has plummeted to -6,47% in 2017 and even worse -9,56% in 2018. As Norwegian's load factor have been fairly competitive during the five-year examination period, increased from 80,9% in 2014 to 85,8% in 2018 and being over 87% in 2016 and 2017, while the average load factor for airlines in this time span, according to IATA, has been around 80%. The negative profit margin per seat flown originates from either too high expenses for an LCC airline or the price setting has not been successful, and the break-even load-factors and estimations have not been correct, which usually is the fault of the management of the company.

3.2. Liquidity ratio and financial health analysis

In this chapter the liquidity ratios and long-term financial health measures of the two companies are presented and analysed. Liquidity ratios are an important type of financial ratios as they determine the ability of the debtor to meet its current debt obligations without raising any additional external capital (Kharatyan *et al.* 2016). Liquidity ratios measure also the margin of safety for companies by calculating the metrics as quick ratio, current ratio and operating cash flow ratio. Liquidity ratios are also known as short-term solvency ratios and these ratios take the company's' current liabilities and current assets into account. (Ross *et al.* 1994).
Debt-to-equity ratio is a good metric to measure the company's long-term sustainability, as it measures the debt against shareholders equity (Palepu *et al.* 2004).

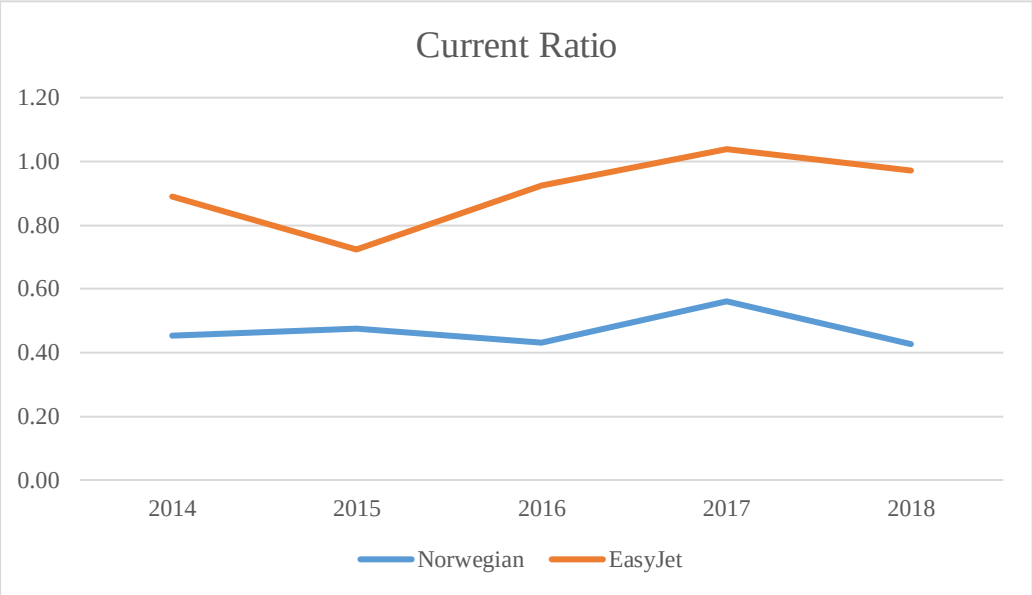

Figure 10. Current ratios

Source: Financial Statements

As it can be seen from figure 10, EasyJet's current ratio has been 0,89 and 0,72 in years 2014 and 2015 but they managed to increase it to 1,04 in 2017 and 0,97 in 2018 which can be considered as an acceptable ratio for an airline company. EasyJet should not have difficulties in meeting their creditors obligations and they did not have any short-term debt in the end of 2018. Norwegian's current ratio indicates that they may face serious difficulties to meet their creditors obligations, as their current ratio has been between 0,43 and at the highest in 2017 0,56 in the five-year time period and their current liabilities increased almost three times over from the level in 2014. These

metrics are concerning to Norwegian and they have to decrease the amount of current liabilities or they will fail to pay their short-term obligations.

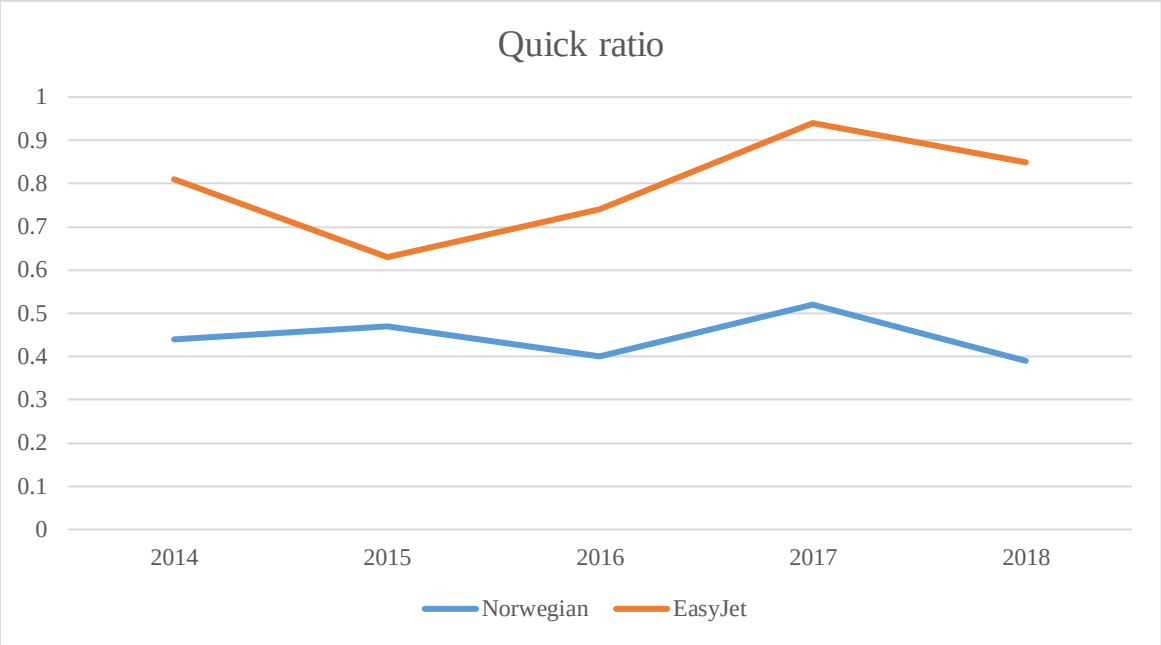

Figure 11. Quick ratios

Source: Financial Statements

EasyJet's quick ratio has been on a satisfactory level through the five-year time period, except for the years 2015 and 2016 when their quick ratio dropped to 0,63 and 0,74, respectively. Even in those two years the quick ratio was not far from acceptable level, and EasyJet has since managed to increase its quick ratio to 0,85 in 2018, which is acceptable independent of the industry. Norwegian's quick ratio has stayed under 0,5 except in 2017 and again 2018 it declined to as low as 0,39 which is an indication of difficulties of possible problems to meet their short-term creditors' obligations. EasyJet's liquidity is much higher than Norwegian's and they are in substantially better financial position.

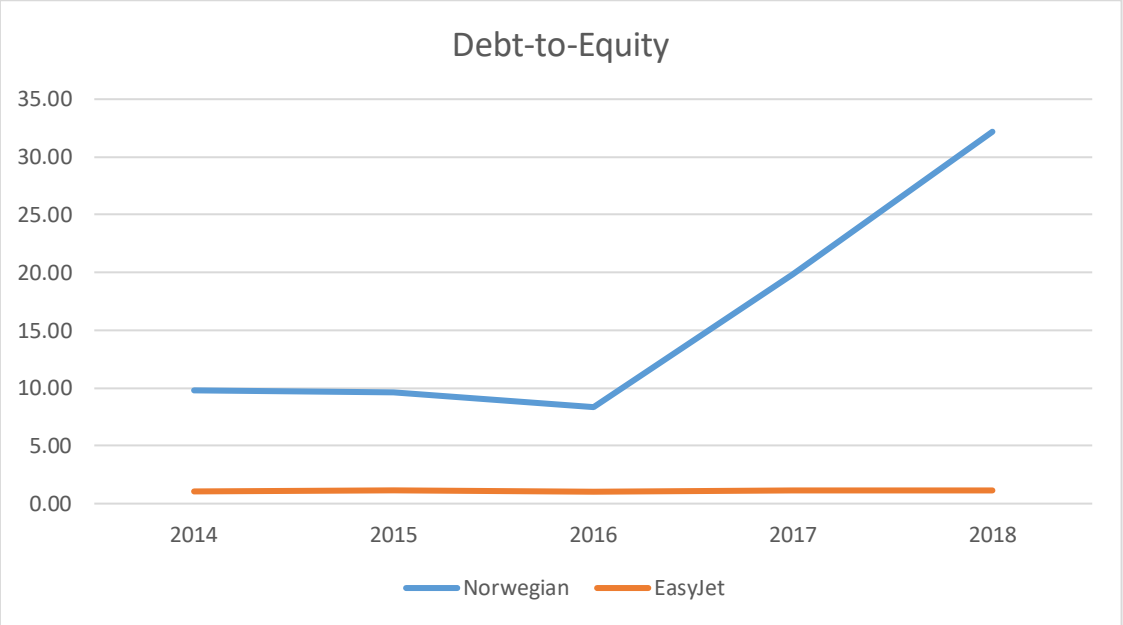

Figure 12. Debt-to-Equity ratios

Source: Financial statements.

Figure 12 shows that EasyJet has been quite cautious with financing through debt and over the five-year time span their D/E ratio has stayed between 1,03 and 1,15, the latter being EasyJet's latest D/E ratio. Still, EasyJet's revenue has increased in the same time by over 30% and the value of their assets by over 56%, which means that EasyJet has been able to grow without taking too much debt and risks. Norwegian's D/E stayed below 10 until 2017, when it increased to 19,86 and in 2018 to as high as 32,19. Norwegian's fleet has increased from 95 aircraft to 165 aircraft in the same time and it is the main factor in the increase of Norwegian's debt. Revenue of Norwegian has also doubled in the five-year time period but the problem in Norwegian's growth with high leverage is that they have not been able to make their operations profitable, which has to be their main objective to be able to reduce the proportion of debt in the company.

3.4. Valuation ratios

In this chapter, ratios which measure the companies' value, will be presented and visualized by graphs. These ratios are used to estimate the value of the companies and they also measure the attractiveness of the companies to invest in.

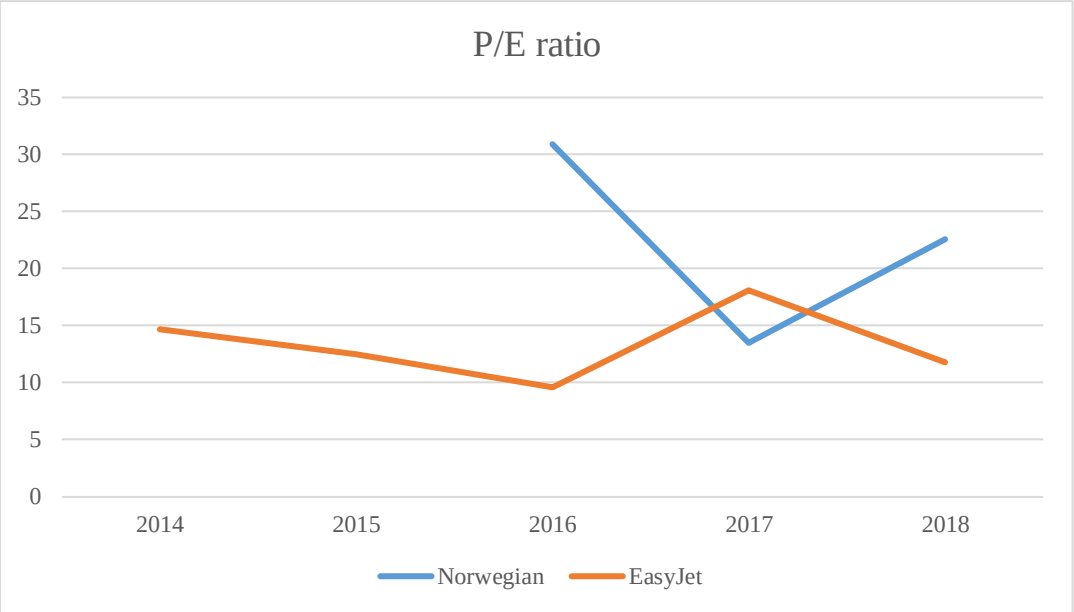

Figure 13. Price-to-earnings ratio

Source: Financial Statements

The P/E ratios of the two companies are presented in figure 13. EasyJet's P/E ratio has fluctuated between 9,6 and 18,1 during the examination period, ending at 11,8 at the end of 2018. EasyJet's P/E ratio has been quite stable and near the average of the industry which indicates that the markets think that the share price is correct relative to the earnings, meaning that EasyJet's share is not under- or overvalued, nor a higher growth is expected in the future. Norwegian's P/E ratio from years 2014 and 2015 is not available because of their negative earnings per share, so the chart only presents the years 2016-2018. Norwegian's P/E ratio in 2016 was 30,9 which is above all averages and indicates that the Norwegian's share price was substantially overvalued. Norwegian's P/E dropped in 2017 to 13,5 but increased to 22,6 in 2018 which means that the company has been overpriced during the 3 years the information has been available and that Norwegian is not an attractive investment possibility.

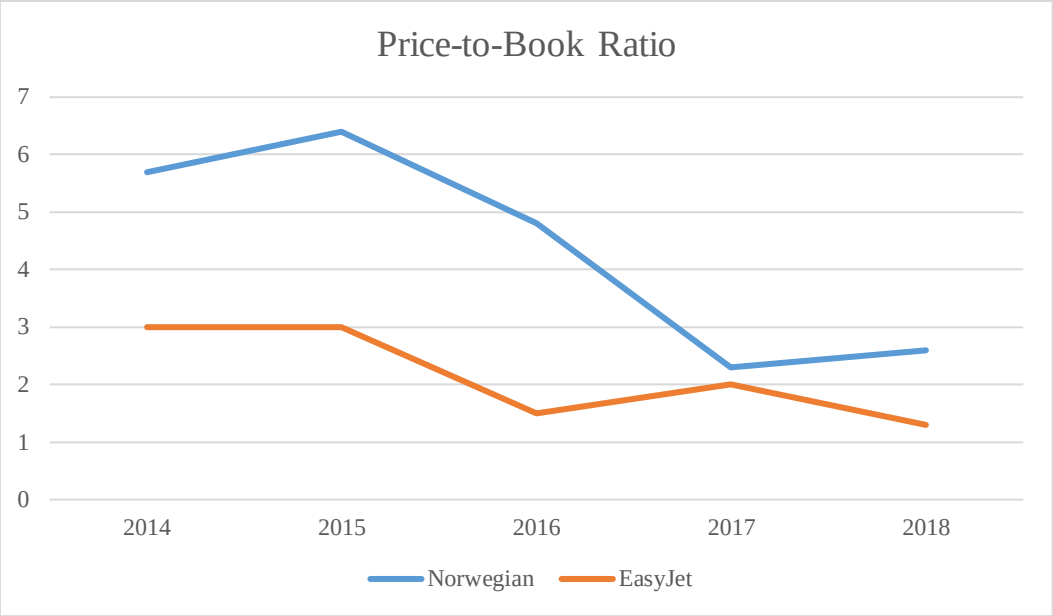

Figure 14. Price-to-book ratios

Source: Financial Statements

EasyJet's P/B ratio has been quite stable over the 5 year time period, from P/B of 3 in 2014, it has decreased to 1,3 in 2018 which indicates that the company might be undervalued, as EasyJet's ROE is at a good level. For value investors, EasyJet is a potential investment possibility as it seems to be undervalued and in a good financial state, although growth is moderate. Norwegian's P/B ratio was substantially higher, 5,7 and 6,4 in 2014 and 2015, which is a clear indication of overvaluation, as Norwegian has not been profitable and been a risky investment. Norwegian's P/B has declined to 2,6 in 2018, which still indicates of an overvaluation as at the same time their return on equity has dropped to -87% and their financial health is far from good according to the metrics presented previously.

3.5. Airline industry specific metrics

In this chapter the performance by the two companies is compared and analysed with three airline industry specific metrics, available seat kilometres (ASK), revenue passenger kilometres (RPK) and the load factor, which is the division of the previous two metrics, and arguably the most important metric of an airline company, as it often determines whether the airline is utilizing its assets efficiently and is able to make the operations profitable. (Morrell, 2013)

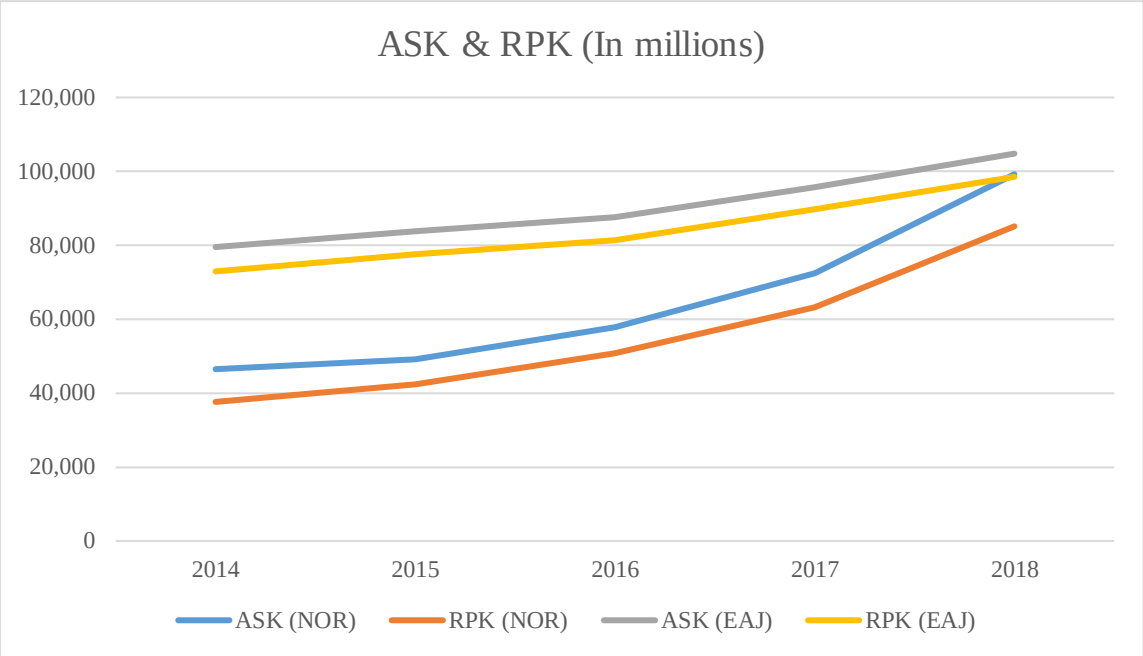

Figure 15.EasyJet's and Norwegian's ASK and RPK in millions
Source: Financial Statements

As it can be seen from figure 15, Norwegian has been growing aggressively during the five-year period and has increased their available seat kilometres (in millions) from 46 479 in 2014 to 99 220 in 2018. The growth has been quite fast, and as it shows, the RPK of Norwegian has not followed at the same rate, which indicates that Norwegian has grown too fast and have not enough passengers to pay back their debts with which they have mostly financed their growing number of aircraft and partially also the employees.

Figure 15 shows that EasyJet has managed to grow their ASK (in millions) from 79 525 in 2014 to 104 800 in 2018, but unlike Norwegian, they have managed to grow also their RPK in the same proportion. EasyJet's growth during the five-year period is much lower than Norwegian's, and because the growth is usually financed with debt, especially in the airline industry, EasyJet's financial health is far better than Norwegian's and they have still managed to grow steadily over this time period.

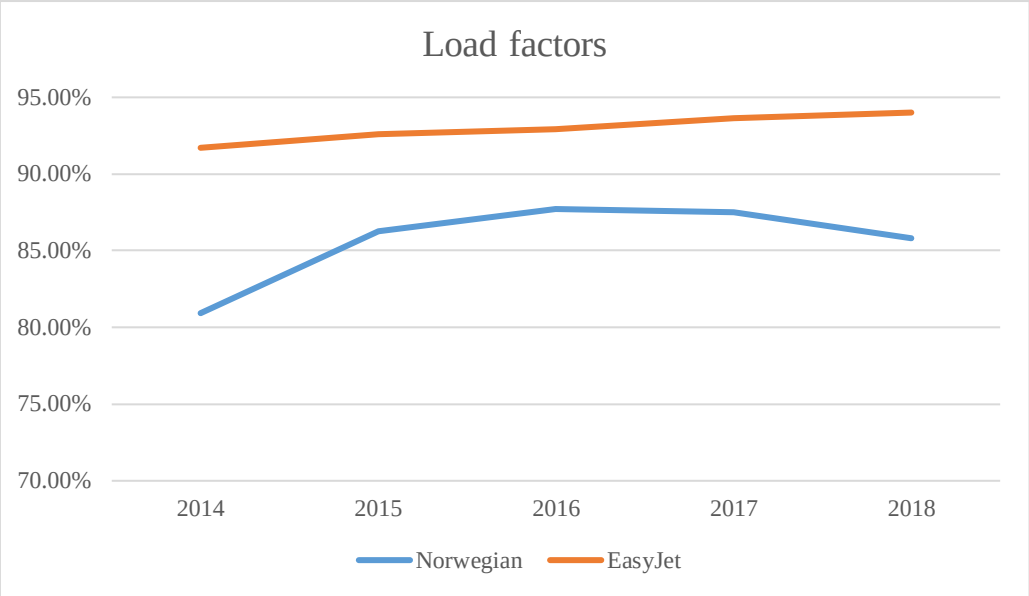

Figure 16. Load factors in percentages

Source: Financial Statements

As it is crucial to airlines to keep their load factor as high as possible, figure 16 shows that EasyJet has managed very well in this matter. From 91,71% in 2014 they have been able to steadily increase their load factor to 94,01% in 2018 as the average load factor during this time period has been 80,7 percent, at the lowest in 2014 at 79,9 and highest in 2018 at 81,7 percent. This indicates that EasyJet has been exceptional compared to Norwegian and even the whole industry at filling their each flight almost full. Norwegian's load factors have been much lower than EasyJet's, but still every year over the average of the industry. This indicates that the problem for Norwegian is not only the load factor, as it still has been above the industry averages, but also the managing expenses and setting correct ticket prices, as other companies have made profits with lower load factors than Norwegian's.

3.6. Discussion

As the results and graphs show, the financial state of Norwegian is currently quite weak and without correct decision and turning the operations profitable, the inevitable consequence will be bankruptcy. While EasyJet has managed to keep their expenses in all areas low enough and succeeded to fill their planes at an exceptional level, at the same time they have steadily managed to grow their operations in fleet size as well as in number of routes without weakening the financial state of the company with too much debt. Both companies benefitted of the decreased fuel prices during 2015 to 2018, but because of the unsustainable level of other expenses, Norwegian could not turn this period profitable.

Based on the financial statements, it could be said that the cause of the financial struggles of Norwegian are the over aggressive attempts to grow the company and financing it with expensive debts, and at the same time opening trans-atlantic routes with wide-body jets, differing from the traditional business plan of low-cost carriers which typically means that the fleet is homogeneous and consists of medium sized aircraft to keep the expenses as low as possible. Norwegian's gamble to offer low-cost intercontinental flights, has not been successful financially and could cause the bankruptcy of the company, which remains to be seen.

CONCLUSION

The aim of the current study was to: 1) answer the question how the airline markets have developed to the current state they are now; 2) compare EasyJet and Norwegian based on their financial results and airline specific metrics; and 3) answer to the question what has caused the difference between the two companies. In order to fulfil the aims, set to the study, the current study presented the theoretical background for analysing the companies in this specific industry and then the research was executed by calculating the ratios and analysing them along with presenting the results as graphs.

The airline industry has changed during the last two decades rather significantly, liberalisation and tightening competition has made the industry far more dynamic than before, started the rapid rise of the low-cost carriers to the industry. There appeared substantial differences in almost every ratio that was used in this study and almost all of them indicated that EasyJet was performing better than Norwegian. EasyJet has succeeded especially in filling each of their flight, which is one of the most important issues to airlines, whereas Norwegian managed to keep their load factors above the industry averages as well, but not high enough to cover the expenses they had from operations and financing the growth of the company with debt. It is crucial to Norwegian to lower their expenses and increase their load factor or prices to make the company profitable.

Based on the findings and the conclusion, the current study presents these main points

1. The rapid rise of low-cost carriers during the last 2 decades has tightened the competition in the whole airline industry and forced also the traditional airline companies to restructure their operations and pricing policies. Many legacy airlines have cut their in flight and before flight services to cut costs.
2. During the last five years, Norwegian's aggressive growth strategy by using high proportions of debt have been unsuccessful at least from the financial point of view, and their profitability has been negative. Norwegian's strategy of using low ticket prices to increase their load factors has not worked, and that has caused the cumulative losses to be substantial and possibly leading the company to bankruptcy unless major cost-cutting and restructuring is made successfully.
3. Because of the cyclical and rather unpredictable nature of airline industry, the more conservative growth strategy with lower levels of debt is more financially sustainable and

a certain level of cautiousness should be used when making decisions. Because of the cyclical nature, even financially healthy airlines may suffer in economic downturns and airlines which are already in a poor financial state are the first to fail, as could happen to Norwegian.

As the high number of failed airlines in the present history indicates, it is recommended to conduct further research on the topic, as there appears to be small number of studies which are focused on European airline companies having financial struggles while the industry as a whole is making highest profits ever.

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