



**BS Thesis
In Business Administration**

Mergers and Acquisition in Aviation Industry

Pidsinee Dísa Einarsdóttir

Advisor: Haukur Camillus Benediktsson, Lektor
June 2019



HÁSKÓLI ÍSLANDS
FÉLAGSVÍSINDASVIÐ

VIÐSKIPTAFRÆÐIDEILD

Mergers and Acquisition in Aviation Industry

Pidsinee Dísá Einarsdóttir

BS-Thesis in Business Administration

Advisor: Haukur Camillus Benediktsson, Lektor

Faculty of Business Administration

University of Iceland, School of Social Sciences

June 2019

Mergers and Acquisition in Aviation Industry.

This thesis is a 6 ECTS final assignment to BS-degree from the Faculty of Business and Administration of the University of Iceland.

© Pidsinee Dísá Einarsdóttir

This thesis cannot be copy without the author's permission

Printing: Haskolaprent

Reykjavik, 2019

Abstract

Mergers and acquisition (M&A) activities take place in the market actively, it started initially started in 1890, and since that time six waves have been identified. The thesis consists of an explanation of the theoretical background of M&A along with the principal of the activity and risk management. The center of focus is M&A in the aviation industry, concentrating on the WOW air and Icelandair event that occurred from 2018 to 2019. The mentioned years have been remarkable years for WOW air due to financial losses. To keep business and survive the company had attempted many solutions, and one of them was to merge with Icelandair. Since these two companies shared the most significant market share in the Keflavik International Airport, or over 70% of the total, if the two airlines had happened to merge it would have increased their market power among international carriers. Moreover, they would benefit from economies of scale and cost reductions, but due to them operating with different types of aircraft, it would have been difficult for the airlines to merge.

Table of Contents

1	<i>Introduction</i>	6
2	<i>Mergers and Acquisition</i>	9
2.1	Horizontal	9
2.2	Vertical	9
2.3	Congeneric	10
2.4	Conglomerate	10
3	<i>Motives</i>	11
3.1	Synergy	11
3.2	Agency	11
3.3	Hubris	12
4	<i>Gains and losses</i>	12
4.1	Payment method	12
4.2	Unlisted stock exchange	13
4.3	Agency problem	13
4.4	Market timing	14
4.5	Hubris	14
5	<i>M&A in the aviation industry in the last decade</i>	14
6	<i>Aviation Industry</i>	19
6.1	Cost efficiencies	19
6.2	Economies of scales	19
6.3	Marker power	20
7	<i>Icelandic Aviation Companies</i>	20
7.1	History of Icelandair	20
7.2	History of WOW air	21
7.3	Merger between Icelandair and WOW air	22
8	<i>Conclusion</i>	26

List of figures

Figure 1: Annual seat capacity in Icelandic Airlines from 2012 to 2018 (CAPA, 2018).....	22
Figure 2: Market share of airlines operated to Iceland (Sigurjonsson, 2018-a).....	24
Figure 3: Overlap network of Icelandair and WOW air in July 2018 (CAPA, 2018).	24

List of tables

Table 1. List of merger and acquisition in the aviation industry in the last decade.....	16
--	----

1 Introduction

Mergers refer to the transaction between two or more companies, often of similar size, when they decide to merge their assets, liabilities, and equity in their companies or to form a new company with the merged assets of the two companies. The acquisition happens when one company purchases another company with the purpose to take it over and to continue operations with the acquired capital (Ionescu, 2015). When looking at the timeline of initial Mergers and acquisition (M&A), this has been active in the market since 1890. Moreover, six waves of mergers have been defined and these happened mostly in the USA (Yaghoubi, Yaghoubi, Locke, and Gibb, 2016).

The first wave occurred in 1890 which represents a horizontal consolidation of industrial production. Extreme changes happened within technology after the electrification of industries making the decade before 1900 an era of economic and innovation expansion. The mergers issued at this time created monopolistic power among the big firms within their specific industries, which was rendered illegal in 1904 by anti-trust law (Yaghoubi et al., 2016).

The second wave occurred in 1990 after the First World War. It was considered to be oligopoly mergers; the reason for these takeovers was largely attributed to second class firms that sought to reduce anti-trust policies to minimize the market power of leading firms in almost every industry. Due to the transformation from monopoly mergers to oligopoly mergers, it appears there was an obstacle to leading firms gaining their capital requirement. In addition, with the increased number of competitors making difficulty for them to seek a place in the market, this may have guided them back to the monopoly merge (Yaghoubi et al., 2016).

The third wave appeared to be conglomerate mergers, which happened in the 1960s. The purpose was to target benefits and growth opportunity including the diversification of products. However, the target reduced earning's volatility, increasing risks for the firms, which caused the internal market to be damaged for the external market. The wave ended in the 1970s (Yaghoubi et al., 2016).

In 1981 the fourth wave started, which was designated to be leveraged and hostile. Necessity drove the new financial methods based upon bank debt and junk bonds. This wave was very different from the previous one as the bids did not have target

management's approval and the size of the targets were bigger than the previous ones which meant the dominant source of financing shifted from equity to debt or cash investment. Even though these mergers were designated to be hostile, the use of leverage was so high that about \$500 billions of equity was eliminated as firms repurchased their share, borrowing to finance takeovers which were private leverage buyout (Yaghoubi et al., 2016).

The fifth wave started in the 1990s when companies within similar industries merged and negotiated favorable stock swaps. During this time many industries became more consolidated related to the acquisition which was paid for by stock transfers. Hostile mergers were no longer needed in this new wave of mergers as companies volunteered to develop shareholder value. This left their managements in an awkward position as they were required to ensure the shareholders' welfare by observing the success of the leveraged buyouts and takeovers which happened in the fourth wave. However, the struggles of the managements were fixed with the help of general stock option programs which managed to affirm shareholder value in this wave (Yaghoubi et al., 2016).

The last wave begins in 2003 as cross border acquisitions which grew impressively along with international consolidations. Transactions in this wave were mostly made by friendly agreement and a cash payment generated by corporate cash-holding and debt. The sixth wave ended in 2008 with the start of economic recessions (Yaghoubi et al., 2016).

M&A in the transportation industry are described as the attempting to gain economies of scale and scope by sharing principal physical assets, organizational structures and facilities saving costs. M&A in aviation have been increasing enormously over the last decade. By integrating, airlines benefit from better market power over a specific route and hubs, along with developing company structures and increasing bargaining power (James, Pamela and John, 2014).

The thesis provides an explanation of the necessary theoretical background to mergers and acquisitions. Four different types of M&A will be examined, demonstrating the ways companies can be motivated by these, and the benefits and losses that they can be subjected to. There are many influences and reasons motivating M&A activity, and the reasoning and ideas behind this will vary depending on the company. The reason can be that the business is trying to expand its market share or to benefit from international

advantages. There are also many advantages and disadvantages that can be important in generating benefits or losses from a consolidation, and these include the payment method(s), the status in the stock market, the agency problem, marketing time, and lastly, hubris. The central focus of this thesis is M&A in the aviation industry. Events that have happened in the last decade, including advantages and gains for the acquirer and the target company, will be concentrated on. Lastly, it will look into the case of the WOW air financial crisis in 2018 to 2019, researching the implications this could have had if an M&A of Icelandair and WOW air took place.

2 Mergers and Acquisition

2.1 Horizontal

A horizontal merger occurs when two firms, one bidding and the target company, who share the same area in the market or the same line of business, are integrated. Both companies had the same product or service line and formed a whole new company under the new entity (Ionescu, 2015). The horizontal merger could benefit from the rise in production or distribution, or both companies could have better results due to the economics of scale.

This type of merger has a significant effect on competition both on the internal and external markets. This merger tends to decrease competition and create a monopoly which has an impact on the market as a whole, leading to a raising of the initial market price because of the high concentration in the market. Theoretical studies have shown that horizontal mergers can be useful in terms of real costs, profitability, relative labor productivity, and financial ratios. However, the results are not fixed and these will differ depending on the industry (Yanna, n.d.).

2.2 Vertical

The vertical merger arises when a company has acquired its own supplier (Brigham and Daves, 2010). Thus, this refers to firms whose output was in one industry, and they then integrated with a firm or firms that produce the distribution channel designed initially for another industry (Sudarsunam, 2003). The vertical merger can be anticompetitive in the market in some situations. The merged firm may have an advantage on the input price, and benefits more on the downstream than their competitors since they gain profit aggressively in the input market. The research by Yumin Chen shows that equilibrium will only occur when one of the upstream producers is more efficient than the others. She explained that therefore the vertical merger would lead to both efficiencies gains and dishonest behavior in some competition areas depending on the switch of supplies and the differentiation of the product. However, downstream firms can change supplier when the relationship-specific investment is small or when the input market is similar to the spot market, making the vertical merger beneficial to the consumer. However, the vertical merger tends to benefit consumers only when the downstream products are

different, on the other hand it will harm the consumer if the products are close substitutes (Chen, 2001).

2.3 Congeneric

Congeneric means "allied in nature or action". It occurs when companies who may have been participating in related industries, markets, suppliers, or sharing the same distribution channel or in synergetic relationship merged. Due to high market power making the acquirer firm incompatible, or having less competition in the market because the competitor is being brought out, the firm can better manage its profits, so the acquirer benefits more from a greater market share than the seller firm following the merger activity. The government and its regulatory frameworks may hinder the market power element. For instance, in the United States, the Department of Justice inspect all mergers, and regulatory agencies are assigned to take care of particular industries, such as the Federal Communications Commission in the television and radio industry (Cox, 2006).

2.4 Conglomerate

Congeneric means "allied in nature or action". This kind of merger occurs when companies who have a related supplier, industry or market are acquired, but in conglomerate they do not share a producer (horizontal) with the same product, nor are they in a producer supplier relationship (vertical) (Bringham et al., 2010). Because of high market power making the acquirer firm incompatible or having less competition in the market due to the competitor being bought out, the firm can better manage its profits, enabling the acquirer to benefit from a greater market share than the seller firm as a result of the merger activity (Cox, 2006).

3 Motives

Many motives refer to the reason behind M&A, but three significant motives have been specifically identified, and these are synergy, agency, and hubris (Berkovitch and Narayanan, 1993).

3.1 Synergy

Synergy motives occur when economic gain is sought through merging the resources of two firms. The synergy motive focuses on increasing value for shareholders. Merger activity happens only when the expected result will ensure optimized shareholder gains in respect of both the target and bidder firms. If the target has bargaining power, either it can deny the total acquire, or there is a participation from another bidder, then target gains will increase with total gains (Berkovitch and Narayanan, 1993). The concept of synergistic gains comes from the theory of corporate diversification. This explains the assumption that large businesses can gain benefits from blending the different assets which can be coordinated between two parties. One asset may benefit from extensive access to multiple sources, products, and activities that allow the company to provide various services and output, instead of utilizing its full capacity on one production output that may face downward demand. (Alezander and Richard, 1991).

3.2 Agency

Agency motives are driven by the self-interest of the management of an acquirer firm towards a company that is likely to increase their own company's welfare. They will seek to takeover another company in their business area to support the specific skills and gains in the competition stakes against their rivals. In this case, the target shareholder has power in the bargaining process, share values will increase due to the amount the acquiring company can appropriate. The greater the amount that is acquired by the appropriating firm, the lower the total gain and this may result in negative total gains. This management decrease the total value of the combined company (Berkovitch and Narayanan, 1993).

3.3 Hubris

Hubris hypothesis refers to management decisions to acquire, even though the synergy motive does not exist. Since there is no synergy, the transaction to acquire the target company relates to a transfer between the target and acquirer companies (Berkovitch and Narayanan, 1993).

The research of Berkovitch and Narayanan concluded that the correlation should be positive when the motivation is not synergy, and only when the motivation for takeover is with positive total gains. The correlation is negative with agency motives and an agency motive is usually used with negative total gains. Despite everything the correlation remains at zero when the motivation is hubris (Berkovitch and Narayanan, 1993).

4 Gains and losses

Information concerning mergers and acquisitions can have a significant influence on the market. Positive news can increase trading and raise activity in the firms involved in the merger. Therefore, underrated firms use this advantage to share new bids in the merger and to gain investor and shareholder attention. By providing further information, underrated firms may gain more reassuring positions in the market, with increased share prices through reevaluation which leads to more significant gains for the bidders (Sharma, 2016).

4.1 Payment method

Increases in the trading activities of bidding and target companies can differ depending on the method of payment, considering the payment during the transaction process can be made through a cash deal, a share deal or a combination of both. Studies have shown that when acquiring, a cash deal gives a better return than a stock deal, and in addition the acquirer, through stock return, usually makes a smaller investment than is made using another method of payment (Sharma, 2016)

When payment is not made amicably the transaction is called a hostile takeover, especially when the target company wants to be acquired (Ionescu, 2015).

4.2 Unlisted stock exchange

Whether the company is listed in the stock market or unlisted can affect the value of the bidder and target company (Sharma, 2016). The acquisition has been demonstrated to increase the shareholder value of the acquiring firm a little when the takeover is made with a company that is listed in the stock market (Nguyen, Pascal., Rahman, Nahid., and Zhao, Rupyun., 2017). This advantage is increased if the acquirer firm focuses mostly on a firm that is listed publicly (Sharma, 2016). On the other hand, target companies with unlisted security are likely to gain when M&A take place. A study by Draper and Paudyal has shown that listed companies face no massive change in share price during the time around the announcement of takeover bids. This is in contrast with unlisted companies which gain a gigantic change around the time a takeover bid is announced (Draper and Paudyal, 2006). This study has also proved that a deal will help to create gains from acquisition if the company is unlisted, however, it will lead to losses if the company is listed (Sharma, 2016).

4.3 Agency problem

Due to the individual parties involved in merger activity being driven by self-interest, attention needs to be given to staying aware of this threat. The company that is merged with agency often have a complex requirement that it is necessary to complete the goal and be able to compete with competitors. However, due to different interests and approaches, either party will often reveal a different objective, and conflicts of interest appear, and this is referred to as an agency problem. This can also take the form of an informational conflict, an agent who manages the company may have more comprehensive information such as information about financial matters, or other sensitive information than the principal, and the agent may use this, within legal limits, to gain an advantage over shareholders. On the other hand, a principal who received information shared by the agent may have more limited knowledge. This can result in wrong conclusions and wrong decision making, and eventually both parties will have different methods of handling risk management and problem-solving, leading to a decrease in value (Socha, 2009).

4.4 Market timing

The term 'market timing' is based on the assumption that market valuation predictions periodically depart from the fundamental valuation and a rational manager should be able to distinguish and act on the mis-valuation. The ability to see the opportunities in the market will allow a new public trade firm to predict acquisition related to a period of high value for their shares, and to know when a stock-based acquisition might look especially attractive. When compared to the private firm, this opportunity will give an advantage to the public firm, allowing them to acquire their target firm at a lower cost. Moreover, by paying the target firm in overvalued equity and at a lower acquisition cost the public trade firm will acquire targets that are themselves overvalued. This method will be especially advantageous when the target firm is valued to be wealthier, and the opposite risks are high. The benefits of this method for initial public offering (IPO) are that public firms are able to acquire the overvalued target and are able to compete with other acquirers on the highly competitive merger market (Hovakimian and Hutton, 2010).

4.5 Hubris

The hubris hypothesis happens when acquirer firms spend more than usual for the target firms (Roll, 1986). Promising bids are ignored when the target firm measures the valuation at less than the current market price leading to loss stating, the issue is the higher the target gain, the lower the acquirer will get, with the total gains remaining at zero (Berkovitch and Narayanan, 1993) because being strong-form efficient influences the whole market to be strong-form efficient (Roll, 1986).

5 M&A in the aviation industry in the last decade

M&A in the transportation sector, especially in the airline industry have increased intensely in the last decade. An inevitable outcome of deregulation has been for airline companies to merge and acquire one another to survive and gain a better place in the competitive market environment (Merkert, Rico., and Morrell, Peter S., 2012), along with trying to capture economies of scope and scale (James et al., 2014).

Airline companies may enter this activity to expand their market place, since sometimes growth is happening slowly in their home market when compared to the other country, and most of the time the Air Services Agreements set boundaries on outside growth. For example, US airlines often cannot pursue another growing market such as China. Perhaps the purpose is only to gain access to a really major airport such as Heathrow Airport, with even the hope to leverage synergies and the chance to extend their network (Merkert et al., 2012). The efficiency and return of scale estimates for airlines who operate exclusively in the US have been considered in numerous studies. Older studies suggest that there were few economic of scale, which indicated as airlines increased in size they also happened to gain economically from route diversity. Later studies have provided the same evidence, providing clarification that M&A activity will create gains in network size (James et al., 2014).

In the US airlines are focusing on gaining size but at the same time they are also aware of competition in the market (James et al., 2014). Sometimes a takeover is necessary to save an airline from a financial crisis, when the antitrust policy allowed this activity even though there was no competition in the market at all (Merkert et al., 2012)

M&A activity was focused mostly in the US because of the consideration of different levels of deregulation and the existence of more direct domestic flight data in comparison to Europe. However, when the low-cost carriers (LCC) appeared on the market, such as Ryanair, this highlighted the need to focus on international comparison efficiency and returns of scale in the industry (James et al., 2014).

Over the past decade the world aviation industry has been through several shocks, the most notable one is the September 11 attacks which evoked the implementation of increased air security worldwide (Merkert et al., 2012). There have been significant changes in the airline industry due to bankruptcy and the growth of LCC in Europe and America. M&A in the airline industry has increased a lot during the last decade as presented in Table 1, showing which took place by merger, acquisition, sale or creation. The term 'creation' refers to circumstances when a parent company forms subsidiaries. However, both acquisition mergers and sales may require a long negotiation period before there is agreement between the two partners because of legal aspects and policies, however, most of the time the date of the public announcement will be the valid date of the agreement. During this time there could be changes in operations since the

company may then operate as a combined entity (acquisition/merger) or separately (sale/divestiture). When things happen this way, the date noted for the activity should be the date when the financial report incorporated the impact, instead of the public announcement date (Merkert et al., 2012). The table shows the change in the aviation industry from 1998 to 2017.

Table 1. List of merger and acquisition in the aviation industry in the last decade

Year	Airline	Activity	Entity
1998	SAS/Air Botnia	Acquisition	separate brands
	British Airways/Deutsche BA	Acquisition	Go Fly
1999	British Airways/City Flyer Express	Acquisition	separate brands
	British Airways/Iberia	9% acquired	separate brands
2000	Air Canada / Canadian Airlines	Acquisition	Air Canada
	Air New Zealand / Ansett Australia	Acquisition	separate brands
	British Airways/Comair	18.3% acquired	separate brands
	British Airways/Air Liberty	Sold	separate brands
2001	American Air/Transworld Airlines	Acquired	American Airlines
	British Airways /GO	Sold	separate brands
	Qantas/Eastern, Southern, Airlink and Sunstake	Creation	Qantaslink
	SAS/Braathens	Acquisition	separate brands
2002	Qantas/Australian Airlines	Creation	LCC
2003	British Airways / Deutsche BA	Sold	separate brands
	Delta	Creation	Song
	Lufthansa/Air Dolomiti	Acquisition	separate brands
	Qantas	Creation	Jetstar
	Ryanair/Buzz	Acquisition	Ryanair
	SAS/Estonian Air	Sold 49%	separate brands
	easyJet/GoFly	Merger	easyJet
2004	Air France/KLM	Merger	separate brands
2005	Lufthansa/Swiss International	Acquisition	separate brands

	Republic Airways/Shuttle America	Merger	Republic Airways
	US Airways/America West Airlines	Merger	US Airways
	SkyWest/Atlantic Southeast Airlines	Merger	separate brands
	Lufthansa/Swiss International	Acquisition	separate brands
	Lufthansa/Condor	Sold	separate brands
	Copa/Aero Republica	Merger	separate brands
2006	Lufthansa/SN Brussels	Merger	Separate brands
2007	British Airways	Creation	Open Skies
	Air Berlin /LTU	Merger	Air Berlin
	Air India/Indian Airlines	Merger	National Aviation Co.
2008	Delta/Northwest Air	Merger	separate brands
	Lufthansa/Austrian	Acquisition	separate brands
	Lufthansa/British Midland	Acquisition	separate brands
	Lufthansa/Brussels	Acquired 45%	separate brands
	Southwest Air/ATA	Acquisition	separate brands
	SAS/Air Baltic	Sold	separate brands
	Kingfisher/Air Deccan	Merger	Kingfisher
2009	Air Berlin/Belair	Merger	Air Berlin
	Air Berlin /LGW	Merger	Air Berlin
	Avianca / TACA	Merger	Avianca- TACA
	Republic Airways Holdings/Midwest Airlines	Merger	Republic Airways
	Republic Airways Holdings/Frontier Airlines	Merger	Republic Airways
	Lufthansa/Germanwings	Acquisition	Lufthansa
	Delta Air Lines/Northwest Airlines	Merger	Delta Air Lines
	Lufthansa/bmi	Merger	separate brands
	Lufthansa/Austrian Airlines	Merger	separate brands
	Vueling/Clickair	Merger	separate brands
	China Eastern/Shanghai Airlines	Merger	separate brands
2010	Air Jamaica/Caribbean Airlines	Merger	Caribbean Airlines

	United Airlines/Continental Airlines	Merger	United Airlines
	Bulgaria Air/Hemus Air	Merger	Bulgaria Air
	Caribbean Airlines/Air Jamaica	Merger	Caribbean Airlines
	Continental Airlines/United Airlines	Merger	United Airlines
			International Airlines
	British Airways/Iberia	Merger	Group
	Lan Airlines/TAM	Merger	LATAM Airlines
2011	Air Berlin/FlyNiki	Merger	Air Berlin
	Southwest Airlines/AirTran Airways	Merger	Southwest Airlines
			International Airlines
	British Airways/Iberia	Merger	Group (IAG)
	Skyways/City Airlines	Merger	Skyways
	GOL/Webjet	Merger	GOL
	Delta/Aeromexico	Acquired 3.5%	separate brands
2012	Alaska Airlines/Virgin America	Merger	Alaska Airlines
2013	American Airlines/ US Airways	Merger	US Airways
	American Airlines / US Airways	Merger	American Airlines
	SAT Airlines/Vladivostok Air	Merger	Aurora
2014	Avianca/AeroUnion	Merger	Separate brands
2016	S7 Airlines/Perm Airlines	Merger	S7 Airlines
	Alaska Airlines/Virgin America	Merger	Alaska Airlines
	Lufthansa/Brussels Airlines	Merger	Brussels Airlines
2017	Lufthansa/Air Berlin	Merger	Lufthansa

Note. Adapted from International Mergers and Acquisition in the Airline Industry from James, Nolan., Pamela, Ritchit. And John Rowcroft. (2014) and “Mergers and acquisition in aviation management and economic perspectives on the size of airlines” from Rico Merkert and Peter s. Morrell (2012).

6 Aviation Industry

The motives behind M&A in aviation are complicated and change with time. The success and failure of a merger depends on the logic of the motivation behind the takeover activity. Often a merger will bring benefits both for the company and the manager, but it can also severely challenge an overconfident manager, leading to failure (Evripidou, 2012).

Over the past 20 years, many factors have been attributed to be the cause of merger motivation, but three factors were actively identified with merger and acquisition in the aviation industry, and these are cost efficiencies, economies of scale, and market power (Evripidou, 2012).

6.1 Cost efficiencies

A merger of two airline companies can improve cost efficiency for the company. They can reduce costs in operation and labor by increasing employee productivity, thus reducing staff costs. A merger company can utilize the unification of technology to reduce the cost of ineffective hubs and routes, and they can also lower fuel costs and reduce excess capacity. An example from table 1 is the merger of America West and US Airways in 2005 which saved \$750 million, achieved with the combining of technology and reduced overheads (Evripidou, 2012).

6.2 Economies of scales

Economies of scale refer to proportionate advantages in cost results when a product is produced in a large volume on an automated production line. It can be successful in a merger when companies reduce fixed costs, such as costs in administration, accounting, research, and development. However, this can only be successful when companies have a similar environment, culture, and equal workforce. An example is the merger of KML and Air France from table 1 which has combined two networks and hubs and had acquired a growing proportion of the European market share, especially among business travelers on long haul flights (Evripidou, 2012).

6.3 Marker power

A merger can earn profits more efficiently with an increase in the market share of combined firms. It can be disapproved of by the authorities' based on the fact that the new company may have excessive market power, leading to an adverse effect on consumers, both in terms of the service provided and the price offered (Evripidou, 2012). Looking at the overall situation, routes affected by mergers shows a significant increase in airfares relative to control groups. However, the increase in cost has not delivered a proven improvement in service quality. The fare changes also differ according to the route, and the market power will be higher on longer routes for which there are fewer substitutes than there are for short routes. However, the merger of different hubs or overlapping hubs does not offer efficiency gains, unlike the acquisition of a competitor. When acquired, the competitor will increase a company's strength in the market, enabling it to create new routes where the merged firm is operating (E and Vijay, 1993). Huschelrath and Muller examined the competitive effect of the merger between Delta and Northwest which is referred to in table 1. The result stated that the merger led to a short term real price increase on the overlapping routes of about 11 percent, and around a 10 percent increase on the routes that had to switch operating carriers. This resulted in a long period when consumers on the overlapping route experienced only a 3 percent increase in the real price. Additionally, the analysis showed that a merger between competitors will start a downward trend in real-prices, and they conclude the way to reduce market power in the US airline industry is to avoid massive consolidations (Huschelrath and Kathrin, 2012)

7 Icelandic Aviation Companies

7.1 History of Icelandair

The Icelandair Group was founded in 1937 in Akureyri on the north coast of Iceland, operating its business as Flugfelag Akureyri, and initially the company concentrated on domestic flights. In 1943 the company relocated its headquarters to Reykjavik and switched its name to Flugfelag Islands. During 1943 another important step had happened to the company when the three young Icelandic pilots who founded Loftleidir

returned home from Canada after their pilot training. Loftleidir was also concentrating on Icelandic domestic flights, and later on they were renamed Icelandic Airlines. In 1945 Flugfelag Islands started its first international routes with flights to Scotland and Denmark. Not long after, in 1947, Flugleidir also started offering international flights, beginning a low-cost service across the North Atlantic in 1993. Flugleidir took over both businesses in 1973, when both Flugfelag and Loftleidir were merged under Loftleidir's name. They decided to use Icelandair as their international trade name, leaving Flugleidir to cover the Icelandic domestic market. Icelandair started to renew its aircraft in 1987. They agreed with Boeing to use more modern aircraft to service their international flights, with a new route network and new Boeing 757-200 and 737-400 aircraft were used to replace their old fleet following a contract with Boeing 757 that was established in 2003. Flugleidir changed its name to FL Group in 2005 which divided its subsidiaries into three groups, with the Icelandair Group being the largest of them. In 2006 Icelandair Group was listed as ICEAIR on the Iceland Stock Exchange. Icelandair completed their contract with Boeing in 2013, with an agreement to order sixteen 737 MAX 8 and 737 MAX9 aircraft, with an option to buy an additional eight airplanes. The deal amounted to USD 1.6 billion (Icelandair Group, n.d.). Boeing 737 MAX has been developed to minimize fuel use, and it will use 37% less per trip when compared to a Boeing 757-200. The aircraft will create less noise even though it has a stronger engine, and it also has a revolutionary redesign of the passenger space (Icelandair, n.d.). Tragically, with the accident of Ethiopian Airlines flight ET 302 and Lion Air Flight JT 610 that killed over 346 passengers and all crew onboard, the Boeing 737 MAX has been grounded, and the Icelandair Group has decided to suspend this aircraft until further notice (Icelandair, 2019; Boeing, 2019).

7.2 History of WOW air

WOW air was founded in November 2011 and completed its first flight to Paris in May 2012. In October the same year, WOW air acquired Iceland Express which was the low-cost airline and officially received its air operating license in 2013. The airline was founded by Skuli Mogensen, who has strong knowledge and a lot of experience in business, especially within the technology and telecommunication sectors in Iceland, Europe, and North America. The airline grew very fast and in 2013 WOW air serviced over 400.000 passengers, and it was recognized as the most punctual airline in Iceland. Unlike

Icelandair, WOW air operated its service using Airbus, which the company claimed reduced maintenance costs and noise and was eco-friendly (Wow air, n.d.). Additionally, as is shown in figure 1 below, the airline had developed its seat capacity, a projected increase of over 28% would provide 3.8 million seats to service their passengers in the year 2018 (CAPA, 2018).

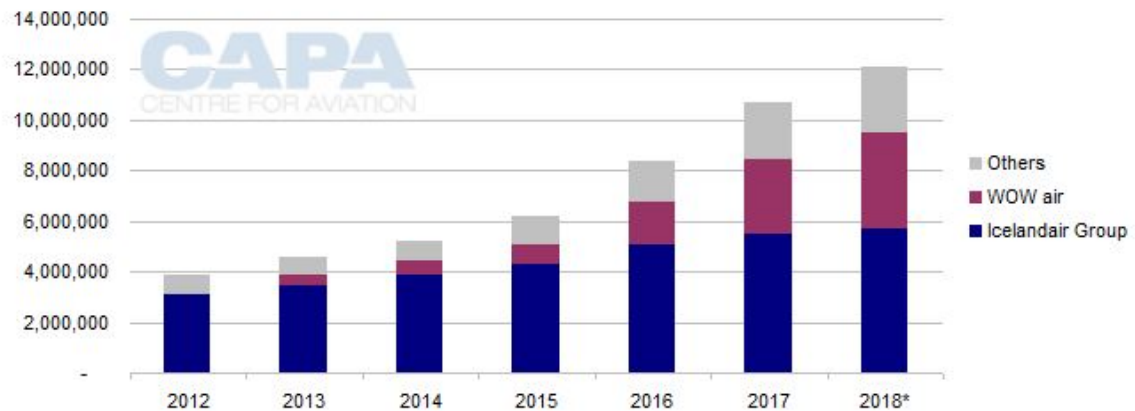


Figure 1: Annual seat capacity in Icelandic Airlines from 2012 to 2018 (CAPA, 2018).

2017 was an obstacle year for WOW air as a result of decreasing profits. According to the financial report for June 30, 2018, the company announced losses which amounted to USD 47 million (WOW air, n.d.). WOW air had lost more than double its profit when compared to the Consolidated Financial Report of 2017, which the company reported losses of USD 22 million (WOW air, n.d.).

In 2018 Wow air sought investment since the company EBIT (earnings before interest and tax) reported a loss of about USD 45 million between the period of July 2017 and June 2018. Furthermore, the airline business plan for 2018 was also very uncertain. It assumed a loss of USD 28 million. The airline faced a high decrease in owner's equity, as by the end of June 2018 the company's owner announced equity of USD 14 million. This meant the drop was more than double when compared to figures at the end of 2017, when the airline's owner reported equity of USD 40 million (Iceland Monitor, 2018).

7.3 Merger between Icelandair and WOW air

Icelandair Group hf. entered into a share purchase agreement to purchase all shares of WOW air on November 5. In consideration of the shares, the shareholders of WOW air

would receive a total of 272.341.867 shares or an equivalent 5.4% of Icelandair Group's shares after the deal. Thereof, 278.066.520 shares, or 3.5% of the shares, would be taken into consideration for the sold shares. However, the consideration can rise to 4.8% or drop to zero percent depending on the condition of the share purchase agreement. 94.274.327 of the shares were to be paid due to the conversion of the subordinate loan into equity. Also, all of the sellers' shares in Icelandair Group would be subjected to a restrictive covenant for six months and half of the shares would be covered by a restrictive convenient for a further six months („Icelandair group acquires WOW air", 2018). The acquisition needed to be approved by the shareholders of Icelandair group and the Icelandic competition authorities before the end of November 2018 (Icelandair Group, 2018-a).

The merge of Icelandair and WOW air was defined as a horizontal merger and many factors can make such a merger complicated for the two airlines. Firstly, the two carriers shared about 80% of the market share at Keflavík International Airport as shown in figure 2. Icelandair offered over 45 destinations and WOW air offered over 37 destinations, with both airlines operating to 19 destinations, if the two airlines merged there would be less competition in the market as international airlines companies will have a hard time entering the Icelandic market. As shown in figure 3, the 19 common routes were accounted to be about 42% of Icelandair's total destinations and 56% of WOW air destinations. When you look at the total seat capacity overlap, 49% of Icelandair's seats are also operated by WOW air, and Icelandair also operated 70% of WOW air's seats.

Rank	Airlines	Market share in %
1.	Icelandair	44.7%
2.	WOW air	32.2%
3.	Wizz air	3.8%
4.	easyjet	2.3%
5.	SAS	2.1%
6.-7.	Delta	2.0%
6.-7.	Norwegian	2.0%
8.	Lufthansa	1.3%
9.	Primera	1.2%
10.-11.	United	1.0%
10.-11.	British Aiways	1.0%

Figure 2: Market share of airlines operated to Iceland (Sigurjonsson, 2018-a)

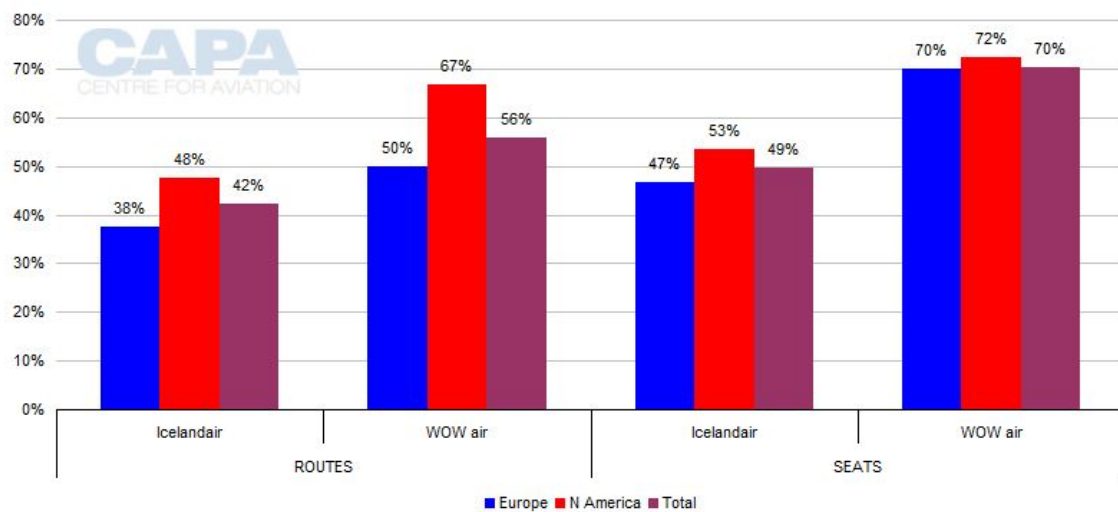


Figure 3: Overlap network of Icelandair and WOW air in July 2018 (CAPA, 2018).

Secondly, the airlines operated with different aircraft. Icelandair serviced their routes with Boeing and WOW air with Airbus. The two aircraft had different systems, and most of the pilots prefer one over the other, making it impossible for them to swap over. It was, therefore, not suitable for the airlines to share their aircraft. Lastly, Icelandair had their own service company while WOW air use services from Airport Associates (Icelandic National Radio, 2018). Furthermore, Kristjan Sigurjonsson, the editor of Turisti.is, shared his opinion on the proposed merging of the two airlines. He stated he did not see how Icelandair and WOW air could operate with their differences and all of the changes if they had happened to merge. He expressed the view that both Icelandair and WOW air are considered to be LCC when compared to other European and American carriers. Even though the ticket fare of Icelandair is higher than WOW air, the airline is still categorized as an LCC due to the low number of first-class seats. In addition, Icelandair targeted passengers who flew between Europe and North America, and the group is considering to be a low-budget group. Moreover, Keflavik Airport was known to be an unpunctual airport when compared to the neighboring countries, so if Icelandair wanted to be a standard airline the national airport would need to improve in quality to fit the standard (Petursson, 2018).

If the two companies had happened to merge, they would have increased their market power as the majority of passengers who arrived and departed from the Keflavik International Airport were using either Icelandair or WOW air. The merger activity could benefit from economies of scale, by reducing fixed costs, but reduced cost efficiency could not be delivered since the two companies operated their services with different types of aircraft. It was also possible that ticket prices would be more expensive due to predicted higher fuel prices in the upcoming year (Sigurjonsson K. , 2018-b).

Unfortunately, the agreement between the parties was not successful, as Icelandair issued a stock exchange release on November 26th stating that the company estimated the purchase agreement conditions were unlikely to be approved by the shareholders. Also, the Board of Directors of Icelandair Group were unlikely to recommend the agreement to their shareholder and would not postpone further decision-making to the shareholder meeting. Due to this situation, both parties agreed to abandon the aforementioned purchase agreement (Icelandair Group, 2018-b). After the failed agreement with Icelandair, WOW air received some interest from an American investor, Indigo Partners, but unfortunately, the hoped for partnership was not achieved. WOW air then returned to discussions on the previous agreement with the Icelandair Group again, but no agreement was possible. To attempt to save the business, WOW air tried to convince their bond holders and other creditors to convert their debt into equity, thus funding the company towards long term sustainability. Sadly this proved to be impossible for the company and WOW air ceased their operations on 28th March 2019 after eight years of service („Saga Wow air frá upphafi til endaloka”, 2019).

8 Conclusion

Mergers and acquisitions have been active in the market since the 1980s and most of the motivation has been for companies to attempt to implement their business in a way which gains wider space in the market. The companies may have different motivations but the common one is to increase shareholder welfare. Companies will face gains or losses when merged. The best payment transaction to process merger activity is a cash deal. When a firm is interested in acquiring another company they should seek a company that has their stock listed publicly, but on the other hand, the target company is in a better position if it is unlisted.

Merger and acquisition in the aviation industry in the past decade has increased enormously as firms seek to internationalize their businesses. Three factors drive M&A in this industry. Airline firms are often merged to raise cost efficiency, since by combining they can reduce fixed costs and cut unnecessary hubs and utilize the benefits of common routes. They can additionally increase economies of scale by reducing staffing costs and the cost of research and development. Lastly, they can benefit from market power, but at the same time, this can be denied them by anti-trust laws.

Icelandair and WOW air are Icelandic airlines that share a large market share in Keflavik International airport. Airline industries are considered to be very important for Icelanders and the nation because one of the leading industries in Iceland is tourism. The years of 2017 to 2019 have been troublesome ones for WOW air as they needed to seek new investors to save the airline, but no partnership could be arranged and the company ceased its operations after several obstacles resulted in passengers being left stranded.

If the merger between the two companies had happened, the airlines would have increased their market power, yet difficulties would have arisen because it is very hard for international airlines to enter the market. The airlines could have benefitted from economies of scale by reducing the cost of staffing and carrying out research. Moreover, they could have benefitted from shared routes, but due to the use of different aircraft, this might have been too difficult with these airline companies.

9 References

- Alezander, R, Slusky. and Richard, E, Caves. (1991). Synergy, Agency, and the Determinants of Premia Paid in Mergers. *The Journal of Industrial Economics*, 277-296.
- Annual Report 2017*. (n.d.). Retrieved from Icelandair Group: <https://www.icelandairgroup.is/servlet/file/store653/item1183376/version3/ICG%2086693%20Arsskyrsla%20FINAL.pdf>
- Berkovitch, Elazar. and Narayanan, M,P. (1993, September). *Proquest*. Retrieved from Motives for takeovers: An empirical investigation: <https://search.proquest.com/docview/211942951?accountid=28822>
- Boeing 737 MAX*. (n.d.). Retrieved from Icelandair: <https://www.icelandair.com/about/our-fleet/boeing-737-max/>
- Boeing CEO Dennis Muilenburg addresses the Ethiopian Airlines Flight 302 preliminary report*. (2019, 4 4). Retrieved from Boeing: <https://www.boeing.com/commercial/737max/737-max-update.page>
- Brigham, F, Eugene. and Daves, R, Phillip. (2010). *Intermediate Financial Management*. Mason: South- Western Cengage Learning.
- Chen, Y. (2001). On Vertical Mergers and Their Competitive Effects. *The RAND Journal of Economics*, 667-685.
- Consolidated Financial Statements*. (n.d.-b). Retrieved from Wow air: <http://wowair-web-files.s3.amazonaws.com/Consolidated%20Financial%20statement/WOW%20air%20Consolidated%20Financial%20Statements%202017%20%28Signed%29.pdf>.
- Cox, R. A. (2006). Mergers and Acquisitions: A review of the literature. *Corporate Ownership & Control*, 55-56.
- Draper, Paul. and Krishna, Paudyal. (2006). Acquisition: Private versus Public. *European Financial Management*, 57-80.
- E, Han, Kim. and Vijay, Singal. (1993). Mergers and Market Power: Evidence from the Airline Industry. *American Economic Association*, 549-569.

- Evripidou, L. (2012, October). *M&As in the airline industry: Motives and systematic risk*. Retrieved from ResearchGate: https://www.researchgate.net/publication/263604893_MAs_in_the_airline_industry_Motives_and_systematic_risk
- History*. (n.d.). Retrieved from Icelandair Group: <https://www.icelandairgroup.is/about/history/>.
- Hovakimian, Armen. and Hutton, Irena. (2010). Merger-Motivated IPOs. *Financiam Management*, 1547-1573.
- Huschelrath, Kai. and Muller Kathrin. (2012, November). *Market Power, Efficiencies, and Entry Evidence from an Airline Merger*. Retrieved from Centre of European Economic Research: <http://ftp.zew.de/pub/zew-docs/dp/dp12070.pdf>
- (2018, November 5). *Icelandair group acquires wow air*. New Delhi : Contify Aviation News. Retrieved from ProQuest: <https://search.proquest.com/docview/2138335618?accountid=28822>
- Icelandair Group acquires Wow air*. (2018, November 5). Retrieved from globenewswire: <https://www.globenewswire.com/news-release/2018/11/05/1644890/0/en/Icelandair-Group-acquires-Wow-air.html?print=1>
- Icelandair Group's acquisition of Wow air cancelled*. (2018-b, November 29). Retrieved from globenewswire: <https://www.globenewswire.com/news-release/2018/11/29/1658711/0/en/Icelandair-Group-s-acquisition-of-Wow-air-cancelled.html?print=1>
- Icelandair Statement on Boeing 737 MAX Operations*. (2019, 3 13). Retrieved from Icelandair: <https://www.icelandair.com/blog/statement-boeing-max-operations/>
- Icelandic aviation: Icelandair vs WOW air*. (2018-a, July 09). Retrieved from CAPA: <https://centreforaviation.com/analysis/reports/icelandic-aviation-icelandair-vs-wow-air-424077>
- Interim Financial Statements*. (n.d.-a). Retrieved from Wowair: Interim Financial Statements

- Ionescu, R. (2015, July). *Mergers and Acquisition - Ways of Developing Business*. Retrieved from ProQuest: <https://search.proquest.com/docview/1694670680?accountid=135705>
- James, Nolan., Pamela, Ritchit. and John, Rowcroft. (2014, August). *International Mergers and Acquisitions in the Airline industry*. Retrieved from ResearchGate: https://www.researchgate.net/publication/282787126_International_Mergers_and_Acquisitions_in_the_Airline_Industry
- Merkert, Rico., and Morrell, Peter S. (2012, July). *Mergers and acquisitions in aviation – Management and economic perspectives on the size of airlines*. Retrieved from ScienceDirect: <https://www.sciencedirect.com/science/article/pii/S1366554512000178>
- Mueller, D. C. (2969, November 1). *A Theory of Conglomerate Mergers*. Retrieved from Oxford Acedemic: <https://doi.org/10.2307/1885454>
- Nguyen, Pascal., Rahman, Nahid. and Zhao, Rupyun. (2017). *Returns to acquirers of listed and unlisted targets: an empirical study of Australian bidders*. Retrieved from ProQuest: <https://search.proquest.com/docview/1874630584?accountid=28822>
- Petursson, Mar, Heimir. (2018, November). *Spáir breytingar um rekstri Icelandair og WOW air*. Retrieved from Visir: <https://www.visir.is/g/2018181129932>
- Roll, R. (1986, April). *The Hubris Hypothesis of Corporate Takeovers*. Retrieved from ProQuest: <https://search.proquest.com/docview/236267568?accountid=28822>
- (2019). *Saga Wow air frá upphafi til endaloka*. Reykjavík: Viðskiptablaðið.
- Samkeppniseftirlitinu verið tilkynnt um kaupin*. (2018, 11 5). Retrieved from ruv: <http://www.ruv.is/frett/samkeppniseftirlitinu-verid-tilkynnt-um-kaupin>
- Sharma, M. (2016, Dec). *Cross Border Mergers and Acquisitions and The Exchange Rate: A Literature Review*. Retrieved from ProQuest: <https://search.proquest.com/docview/1895133654?accountid=135705>
- Sigurjonsson, K. (2018-a, July 07). *Hlutdeild íslensku flugfélaganna breyttist ekki*. Retrieved from Túristi: <https://turisti.is/2018/07/hlutdeild-islensku-flugfelaganna-breyttist-ekki/>

- Sigurjonsson, K. (2018-b, 5 13). *Dýrari flugmiðar hafa ólík áhrif hjá Icelandair og WOW*. Retrieved from Túrismi: <https://turisti.is/2018/05/dyrari-flugmidar-hafa-olik-ahrif-hja-icelandair-og-wow/>
- Socha, B. (2009). *The Agency Problem in the Merger of Vistula & Wólczanka Ltd. and W. Kruk Ltd.* Retrieved from ProQuest: <http://dx.doi.org/10.2478/v10103-009-0017-4>
- Sudarsunam, S. (2003). *Creating Value from Mergers and Acquisitions*. Harlow: Pearson Education Limited.
- WOW Air seeks investors . (2018, August 12). Retrieved from Iceland Monitor: https://icelandmonitor.mbl.is/news/news/2018/08/15/wow_air_seeks_investors/
- Yaghoubi, R., Yaghoubi, M., Locke, S. and Gibb, J. (2016). *Mergers and acquisitions: a review. Part 1.* Retrieved from ProQuest: <https://search.proquest.com/docview/1771778263?accountid=28822>
- Yanna, W. (n.d.). *Horizontal mergers, efficiency and capacity utilization: A DEA approach*. Retrieved from Proquest: <https://search.proquest.com/docview/305210573?accountid=28822>