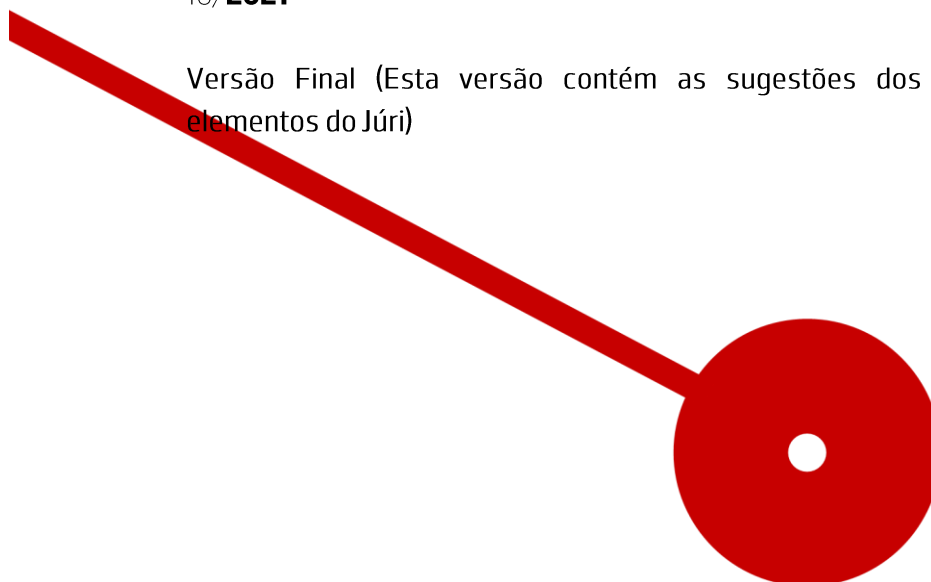


What influences management to disregard the quality of disclosure? – Lufthansa case

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Dissertação de Mestrado apresentada ao Instituto Superior de Contabilidade e Administração do Porto para a obtenção do grau de Mestre em Contabilidade e Finanças, sob orientação do Professor Doutor Rui Filipe Pereira Bertuzi da Silva.



Resumo

As demonstrações financeiras representam a posição financeira e os resultados de uma empresa. São a fonte de informação dos investidores.

Este estudo tem como objetivo perceber o que influencia os gestores a descorar a qualidade da informação financeira, nomeadamente dos instrumentos financeiros, e se os períodos de crise têm algum impacto. Na presente dissertação é estudada uma empresa do setor da aviação – a Lufthansa - pois este setor recorre bastante aos instrumentos financeiros para diminuir a sua exposição a taxas de juro, oscilações no preço do combustível e flutuações nas taxas de câmbio. O estudo cobre o período 2008-2020.

Trata-se de uma análise qualitativa aos relatórios anuais da Lufthansa, feita através de análise de conteúdo, onde as respostas às questões de investigação são obtidas através de uma avaliação seguindo um sistema binário. As teorias da Agência e do *Stakeholder* são também igualmente consideradas para este estudo, uma vez que ambas as teorias representam o interesse dos acionistas e do público.

Os resultados apontam que não foi identificada nenhuma razão em particular que influencie a diminuição da qualidade do reporte financeiro, mas sim alguns fatores que podem levar a tal.

Palavras-chave: Instrumentos Financeiros, Contabilidade de Cobertura, IFRS 7, IFRS 9

Abstract

Financial statements represent the financial position and results of a company. They are the source of information for investors.

This study has as a target understanding what influences managers to lower the quality of financial information, particularly financial instruments, and whether periods of crisis have any impact. In this dissertation it's studied one company in the aviation industry - Lufthansa - as this industry makes intense use of financial instruments to decrease its exposure to interest rates, fuel price swings, and exchange rate fluctuations. The study covers the period 2008-2020.

It is a qualitative analysis of the Lufthansa annual reports, carried out by means of content analysis, where the answers to the research questions are obtained through an evaluation following a binary system. Agency and Stakeholder theories are also considered for this study as well, as both theories represent the interest of shareholders and the public.

The results point out that no reason has been identified that influences the decrease in the quality of financial reporting, but rather some factors that may lead to this.

Keywords: Financial instruments, Hedge accounting, IFRS 7, IFRS 9

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Abbreviations

AFS – Available for Sale

Bn – Billion

FVOCI – Fair value through other comprehensive income

FVTPL – Financial assets at fair value through profit or loss

GDP – Gross domestic product

HTM – Held to maturity

IASB – International Accounting Standards Board

IASC – International Accounting Standards Council

IATA – International Air Transport Association

ICAO – International Civil Aviation Organization

IFRS – International Financial Reporting Standards

LCC – Low-Cost Carrier

MRO – Maintenance, Repair and Overhaul services

ROCE – Return on Capital Employed

RPK – Revenue passenger kilometers

RQ – Research Question

US – United States

WSF – German Economic Stabilisation Fund

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INTRODUCTION

Introduction

This dissertation aims to understand what influences managers to disregard the quality of financial disclosure, specifically financial instruments, and if the quality decreases during the financial crisis. Financial instruments are applied to offset the risks entities are exposed to, such as interest rates, commodity prices, and exchange rates oscillation. The study will focus on one company of the aviation industry - Lufthansa Group – for the period 2008-2020. The lack of studies compared to this one is notorious.

Financial instruments were chosen as the main topic of the study because of their volatility, and the aviation industry was chosen, and it highly relies on financial instruments to manage the risk of large oscillations in currency, interest rates, and fuel price. To cover crises periods, it was selected for the study, the period 2008-2020. In this period there was the 2008 Global Financial crisis and the Coronavirus pandemic in 2020.

The goal of this case study is to understand what influences managers to disregard the quality of financial disclosure. A set of questions were formulated to understand the level of disclosure over the years to accomplish this goal. The questions were answered based on the annual reports of Lufthansa Group, available on the company's website.

The research questions (RQ) created are the following:

- RQ1: Which disclosures methods about financial instruments is Lufthansa applying?
- RQ2: Did reclassification of the financial instruments' categories occur since 2008?
- RQ3: Do events after the reporting period notes occur in the Lufthansa annual reports during the period of frequent events affecting the value of financial instruments (2008-2020)?
- RQ4: Does Lufthansa follow the accounting standards regarding the terminology related to financial instruments in the annual reports?
- RQ5: Does Lufthansa have hedging instruments? Which ones?

Additionally, there was an attempt was also made to apply Agency and Stakeholder Theory to the case under study.

Over the years, the quality of financial disclosure increased, providing more information to the users of the financial statements. However, in 2020, the pandemic year, there was vaguely less information available. However, this fact does not necessarily mean anything because it's at the same level as of 2018 and, the smaller score achieved in 2020 is related to no impactful events reported on after-reporting notes.

While over the years, Lufthansa Executive and Supervisory board had variable remuneration based on long-term goals and company's financial performance, as Lufthansa received State support in 2020, it was obliged to cap the remuneration of the board. The variable remuneration of the board member, such as bonuses, for example, is to be cut for the duration of the support. This fact can lead to a decrease in the motivation to act in the company's best interests since managers will have a significantly smaller remuneration for the time being. There isn't enough evidence to support this theory yet, and this would have to be analyzed in the coming years.

This study didn't lead to any reason in disregarding the quality of financial information, only a few triggers that can decrease the quality itself.

The dissertation is structured as follows: Chapter I concentrates on the literature review, focusing on Financial Instruments, International Financial Reporting Standards (IFRS) 7 and 9, and the Agency and Stakeholder theory; Chapter II is about the Aviation industry, namely on how the air transport sector is nowadays, the impact of the 2008 Global Financial crisis and the Coronavirus pandemic in the industry; Chapter III concerns the Methodology applied a respective sample; Chapter IV concerns the data analysis and results; and lastly, Chapter V presents the conclusions of the study.

I – LITERATURE REVIEW

1. Literature Review

1.1. Financial instruments

Financial instruments are contracts that lead to a financial asset of one entity and a financial liability or equity instrument of another entity. These can be measured in two ways: at fair value or amortized cost. When the financial instrument measured at fair value has net changes, these can be recognized as “profit or loss on the income statement” or “as other comprehensive income (loss) which bypasses the income statement” (CFA Institute, 2020).

Financial instruments are essential for companies to offset a set of risks they are exposed to (Malaquias & Zambra, 2018). According to (Ross, 2012), financial instruments suffer volatility that not often is constant and generally fluctuates over time. Companies use financial instruments to hedge their exposure against interest rates, commodity prices, and foreign exchange oscillations (Birt et al., 2013). There is considerable evidence that the level of exposure to exchange rate and currency risk were determinants to opt by cash flow hedge accounting (Sticca & Nakao, 2019).

Financial derivatives, one type of financial instruments, is a contract between two or more parties whose value is derived from the value of an underlying instrument, that usually changes in value after changes in an underlying market variable. Derivatives offer a way to hedge exposures companies are exposed to (Campbell et al., 2019). Financial derivatives fall under two categories: forward commitments and contingent claims. Forward commitments contemplate forwards contracts, futures, and swaps. Contingent claims contemplate options, credit derivatives, and asset-backed securities (CFA Institute, 2020).

Optimal hedging theories have detected numerous benefits from financial hedging as well as its predisposition to reduce companies’ interest rates and improve their financing capacity (Alexandridis et al., 2021).

(Phua et al., 2021) argue that using financial derivatives impacts earning volatility and influences earnings management practices.

1.2. IFRS 7

Financial statements are the main source of information for its users, being them individual investors or corporate. Financial statements represent a company's financial position and financial results in a certain period, and it is where we can find information regarding financial instruments (Pawłowski, 2019). According to (Norma Contabilística e de Relato Financeiro 27, n.d.), a financial instrument is a contract that creates a financial asset in one entity and a financial liability or equity instrument in another. The quality of the reporting influences access to external capital: it can either enhance or hinder investment efficiency (Roychowdhury et al., 2019).

Borio and Tsatsaronis (2006) cited by (Alves & Graça, 2013) state that external investors, shareholders, and holders of debt expect to have evidence regarding the financial performance of companies to make decisions about them. Historical and current information lets investors outline the risks over time and forecast their future development. Hope et al. (2016), cited by (Beatty et al., 2019) say that analysts can more easily evaluate entities' underlying risk with more accurate risk factor disclosures.

The lack of information regarding financial instruments in entities' financial statements has added to the mishandling of financial instruments derivatives around the world, causing several financial losses and bankruptcy cases. To provide the users of financial statements with valuable data for decision-making regarding investments, several standards have been established to recognize financial instruments in entities' financial statements (Tahat et al., 2019).

(*IFRS 7 Financial Instruments: Disclosures*, n.d.) concerns all disclosure requirements regarding financial instruments. Every company that trades financial instruments needs to apply this standard (Bischof, 2009). The disclosures coming from IFRS 7 enable users to evaluate: “the significance of financial instruments for the entity's financial position and performance”; and “the nature and extent of risks arising from financial instruments to which the entity is exposed during the period and at the end of the reporting period, and how the entity manages those risks” According to the standard, it is applied even to entities that have limited financial instruments, such as cash, accounts receivable, and accounts payable.

In the balance sheet, under IFRS 7, financial assets and financial liabilities are categorized under the following:

1. Financial assets at fair value through profit or loss (FVTPL), showing separately (i) those designated as such upon initial recognition and (ii) those classified as held for trading under IAS 39;
2. Held-to-maturity (HTM) investments;
3. Loans and receivables;
4. Available-for-sale financial (AFS) assets;
5. Financial liabilities at fair value through profit or loss, showing separately (i) those designated as such upon initial recognition and (ii) those classified as held for trading under IAS 39 (now IFRS 9); and
6. Financial liabilities measured at amortized cost.

Companies often use financial instruments derivatives to hedge their risk exposure: commodity prices, exposure to foreign currencies, interest rates. While derivatives are a valuable instrument to offset risk exposure, they also may build up to dangerous vulnerabilities. The accounting issue with derivatives was that financial statements did not adequately reveal their impacts. Either financial instruments were not recognized on balance sheets, or transactions were designed intentionally to keep them off the balance sheet (Gebhardt, 2012). Hedge accounting lies in a set of rules intended to make sure that gains and losses on hedged items are recognized in the same period, thus preventing earnings volatility that is not economically justified. Under standard accounting rules, the hedged item and the derivative are often reported differently so that gains and losses resulting from the two instruments are not reported at the same time in profit or loss (Glaum & Klöcker, 2011). From an investor's point of view, hedge accounting seeks to better understand how a company manages its risk (Müller, 2020).

1.3. IFRS 9

The International Accounting Standards Council (IASB) issued the International Accounting Standard (IAS) 39 - Financial Instruments: Recognition and Measurement - that define rules under which hedge accounting may be applied. The rules make hedge accounting complex and burdensome for companies. Considering the standard's restrictive and rigid rules, entities can either implement the risk management strategies they consider economically optimal, sacrifice

hedge accounting and admit earnings volatility, or apply hedge accounting to reduce earnings volatility, but accept sub-optimal risk management strategies. The entity's value is prone to suffer in both situations (Glaum & Klöcker, 2011).

IAS 39 specifies the conditions that must be cumulatively fulfilled so that a hedging relationship qualifies for hedge accounting. Primarily, there must be a formal designation and documentation at the inception of the hedging relationship. Then, the hedging relationship must be "highly effective" and must be evaluated for the duration of the hedge. Additionally, for cash flow hedges it must be highly probable that the underlying forecasted transactions will take place. One of the most criticized points lies in the periodic effectiveness test of a hedging relationship (Bernhardt et al., 2016). IAS 39 requires a prospective test that evaluates if a hedge is expected to be highly effective in the future. This test needs to be performed at the inception of the hedge and repeated during the hedge relationship, at least at the dates the company prepares its statements. Also, a retrospective effectiveness test needs to be conducted at each test point, meaning it needs to be proved that the hedge relationship has been highly effective. If one of the effectiveness tests fails, hedge accounting must be terminated (Glaum & Klöcker, 2011).

To simplify the accounting for financial instruments, the International Accounting Standards Board (IASB) replaced IAS 39 with IFRS 9 (Müller, 2020). The final version of IFRS 9 was published in July 2014 and will formally replace IAS 39 on 1st January 2018 (Gornjak, 2017).

This new standard aims to reduce the complexity of classification and measurement of financial instruments (Gornjak, 2017) have fewer limitations regarding hedging instruments compared to IAS 39 (Bernhardt et al., 2016).

The recognition of financial assets under IFRS 9 is subdivided into three categories:

- Amortized cost - a financial asset is measured at amortized cost if both of the following conditions are met:
 - the asset is held within a business model whose objective is to hold assets to collect contractual cash flows; and

- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely principal payments and interest on the principal amount outstanding.
- Fair value through other comprehensive income (FVOCI) - financial assets are classified and measured at fair value through other comprehensive income if they are held in a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets;
- Fair value through profit or loss - any financial assets that are not held in one of the two business models mentioned are measured at fair value through profit or loss.

The financial liabilities, under IFRS 9, shall be classified as subsequently measured at amortized cost, except for:

- Financial liabilities at fair value through profit or loss - Such liabilities, including derivatives that are liabilities, shall be subsequently measured at fair value;
- Financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition or when the continuing involvement approach applies;
- Financial guarantee contracts;
- Commitments to provide a loan at a below-market interest rate;
- Contingent consideration recognized by an acquirer in a business combination to which IFRS 3 applies.

(*IFRS 9 Financial Instruments*, n.d.) recognizes three types of hedging relationships: “fair value hedge: a hedge of the exposure to changes in fair value of a recognized asset or liability or an unrecognized firm commitment, or a component of any such item, that is attributable to a particular risk and could affect profit or loss; cash flow hedge: a hedge of the exposure to variability in cash flows that is attributable to a particular risk associated with all, or a component of, a recognized asset or liability (such as all or some future interest payments on variable-rate debt) or a highly probable forecast transaction, and could affect profit or loss; hedge of a net investment in a foreign operation as defined in IAS 21”.

Hedging effectiveness is only tested by a prospective and principle-based effectiveness test – there must be an economic relationship between the hedged item and the respective instrument; the effect of credit risk does not dominate the value changes that result from economic relationships; the hedge ratio of the hedging relationship should mirror the same quantities of

hedge item and hedging instrument. The retrospective test is removed under the new standard. If a hedging relationship fails the test, the company is required to rebalance the hedge, and if rebalancing fails, the hedge accounting must be terminated (Bernhardt et al., 2016).

Under IFRS 9, companies need to change from looking back to forward-looking (Gornjak, 2017). The changes in hedge accounting let entities reveal their risk management activities more closely in the financial statements, which helps investors in understanding them (Bernhardt et al., 2016).

1.4. Theories that may apply to management

1.4.1 Agency theory

Agency theory is, according to (Eisenhardt, 1989), concerned about solving two issues that can occur in agency relationships. The first issue would be the ambitions of the principal (one party) and the agent (the other party); and how challenging and expensive is to verify what the agent is doing.

The foundation of agency theory is on the premise that the interests of principles and agents deviate (Hill & Jones, 1992) and that agents have more information than principals and that this asymmetry poorly impacts the principal's competence to supervise if their interests are being accurately served by the agents (Adams, 1994).

To diminish the divergence of the principal from his/her interests, the principal may determine incentives for the agent and monitor costs to restrict opportunistic actions by the agent. The principal can additionally support bonding costs – pay the agent to spend resources to ensure the agent will not take on behaviors that could damage the principal or to make sure the principal will be compensated if such a thing occurs (Hill & Jones, 1992).

(Bendickson et al., 2015) believe that the Agency theory made sense in the past, but it requires developments to explain the current business environment. While the theory is fit to address one-on-one relationships, it clashes with many-to-one relationships. Agents should be concerned with other stakeholders.

(Panda & Leepsa, 2017) advocate that this theory is one of the most valuable in the finance and economic literature due to its broad presence in several organizations. However, the theory undergoes several limitations, as it assumes a contract can remove the agency problem, but it meets many obstacles such as information asymmetry, rationality, fraud, and transaction cost.

(Zogning, 2017) supports that the Agency Theory is now outdated by the evolution of modern practices of corporate governance. It assumes “that behaviors and consequences are relatively homogeneous and easily controlled” which the author believes is not accurate in the real world.

1.4.2. Stakeholder theory

According to (Freeman, 2015), the stakeholder theory is “a set of propositions that suggest that managers of firms have obligations to some group of stakeholders”. Any business needs to be grasped at three levels of analysis:

1. How the business fits its larger environment – an accurate picture of the place of a business in its larger environment. Whose groups have a stake and what is the nature of the relationship between stakeholder and firm?
2. How the business relates to its environment as a matter of standard operating procedures and routine management processes - the organizational processes that are employed to accomplish fit with the external environment. Which activities are essential for success in the organization?
3. How the business accomplishes actual transactions with those individuals who have a stake – how do the organization and its managers work together with stakeholders?

The stakeholder theory is connected to how corporations should be administered and how managers should act.

(Bonnafeous-Boucher & Rendtorff, 2016) state that “stakeholder theory examines the frontiers between the activity of the firm and other social activities”. However, the task of exploring the scope of the theory, not relating to the state of art, is still far from complete, as “stakeholder” has become an ecumenical matter.

For (Barney & Harrison, 2020) the stakeholder theory can benefit from attracting theories and perspectives from numerous disciplines, due to its comprehensive nature.

This theory pushes the reset button for most business theories. The most important analysis for business is the stakeholder relationship and its connection with other areas. The most common one is the "economic transaction" which, in the end, means business success (Freeman et al., 2020).

II – AVIATION INDUSTRY

2. Aviation industry

2.1. Air transport sector

Air transport has doubled in size every fifteen years and has faced greater growth than many other industries, according to (Industry High-level Group, 2019). The increasing demand for passenger and freight services, technological progress, and associated investment have come together to magnify the output of the aviation industry.

The air transport sector has consistently resisted the recession cycles because it is one of the most valuable tools to end them – “an important consideration for governments at every level in a challenging economic environment” (Industry High-level Group, 2019, p. 11). A key driver in passenger traffic growth is that air travel has become more and more affordable throughout the years, no longer being a luxury commodity. The evolution of low-cost carriers (LCCs) brought several low-cost travel options, continuously accessible to more people.

The aviation industry has a substantial economic impact. The jobs created by the industry cover airports, airlines, air navigation service providers, and manufacturing. Indirectly, there is also the impact created by suppliers such as fuel suppliers, the companies that build the airport facilities, producers of parts used in aircraft, manufacturers of the products sold in airport outlets, and business services like customer support (Industry High-level Group, 2019).

According to (IATA Economics, 2021), the global airline industry had in 2019 a net post-tax profit of USD 26.4 billion (bn), an operating margin revenue of 5,2%, and flew 4.5bn of passengers. In 2020, the numbers fell dramatically, the net post-tax profit was USD -126.4bn, the operating margin revenue decreased to -28,2%, and they flew less than 2.7bn of passengers. As of April 2021, the net post-tax profit of the global airline industry was USD -47.7bn, the operating margin revenue was -9,4%, but on a positive note, they flew a total of 2.4bn pf passengers already, 0.6bn more when compared to the whole year 2020.

2.2. 2008 Global Financial Crisis and its impact on the Aviation industry

The crisis of 2007-2008 began in the United States (US) with the erupting of a housing bubble and the growth of mortgage defaults, mainly mortgage defaults concerning subprime

mortgages (Helleiner, 2011). Despite poor credit ratings, loans were granted to individuals who later struggled to make repayments due to the more excellent interest rates (Hodson & Quaglia, 2009).

According to (Erkens et al., 2012) the crisis resulted in the collapse of financial institutions and halted global credit markets and forced unparalleled government intervention worldwide.

The recession left its mark on the airline's finances, both for passenger and air cargo (Franke & John, 2011).

There was an unprecedented spike in fuel prices and a sudden fall in air traffic coming from the crisis that led to a substantial decline in revenues. The fuel represented more than 50% of most airlines' operating costs when in 2007 they represented an average of 28% of the airline's operating costs.

According to IATA's annual report 2009, another factor that restricted the benefits from "lower crude oil prices in 2008 was the impact of fuel hedging contracts taken out earlier in the year" when the concern was of even higher oil prices than at its peak. This meant that airlines made hedging contracts to protect them from excessive fuel prices that later caused them to pay greater prices for fuel than spot prices, during the last quarter of 2008. This was substantial enough to make airlines' financial performances in 2008 far worse than anticipated.

Another factor that led to greater losses than anticipated was that airfreight volumes had collapsed more than 22% when compared to the previous year, average load factors for international markets had fallen 2,2%; Revenue passenger kilometers (RPKs) fell 4,6% in the same period (IATA, 2009).

2.3. COVID-19 pandemic and its impact on the Aviation industry

COVID-19 is a disease caused by the respiratory syndrome coronavirus 2 (SARS-CoV-2) infection" (Calderon-Tellez & Herrera, 2021). Throughout 2020, the COVID-19 pandemic triggered substantial changes to society and aviation organizations internationally. The pandemic concerned several players such as airlines, airports, and service providers (Linden, 2021).

According to International Air Transport Association (IATA), the COVID-19 pandemic was the greatest shock to air travel and the aviation industry since the Second World War. Even the

impacts of the 9/11 terrorist attacks and the 2008 global financial crisis did not have such an impact.

One of the consequences of the pandemic was the travel restrictions. The airline industry was mostly grounded in April 2020, most scheduled intercontinental connections between cities vanished. Cargo remained to fly, but since most of it was carried within passenger flights, with the near interruption of those flights, this was an issue to the global supply chains (IATA, 2020).

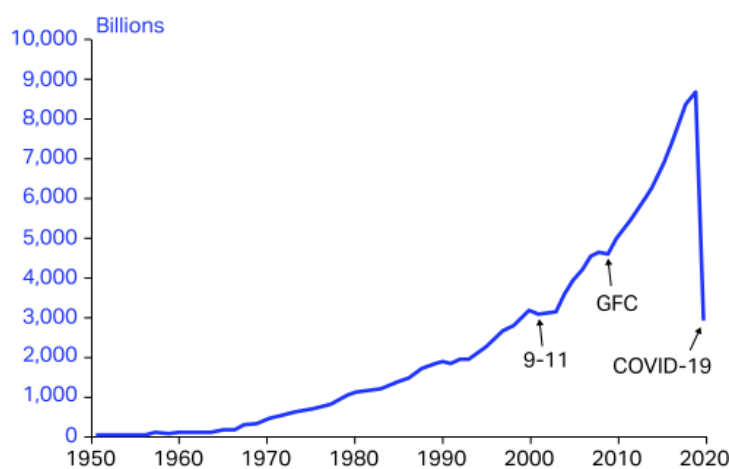


Figure 1. Worldwide revenue passenger kilometers (RPKs) flown annually.
Source: IATA annual report 2020

International Civil Aviation Organization (ICAO) estimates that the impact of the pandemic in 2020 when compared to 2019 levels, there was an overall reduction of 50% of seats offered by airlines and an overall reduction of 1.376 million passengers.

The impact of the pandemic was also felt in tourism, with a decline in international tourism of USD 1.3 trillion in 2020. In trade, there was a fall of merchandise trade volume by 5,3%. As for the Global Economy, it is estimated a -3,3% to -4,3% contraction in world Gross domestic product (GDP), significantly worse than the 2008 global financial crisis (ICAO, 2021).

III - METHODOLOGY AND SAMPLE

3. Methodology and Sample

3.1. Investigation target

The main purpose of this study is to understand what influences managers to disregard the quality of financial disclosure. This study will be a qualitative case study focused on one company from the aviation industry – Lufthansa – and its Financial Statements.

A case study is an empirical method that investigates a contemporary phenomenon in depth and within its real-world context, especially when the boundaries between the phenomenon and context may not be openly defined (Yin, 2018).

The analysis will be focused on financial instruments, which are covered by IFRS 7 – Financial Instruments: Disclosure and IFRS 9 – Financial Instruments.

IFRS 7 succeeds IAS 32 and concerns all disclosure requirements regarding financial instruments. The disclosures coming from IFRS 7 enable users to evaluate the materiality of financial instruments and the risks arising from financial instruments to which the companies are exposed.

IFRS 9 succeeds IAS 39 and defines rules under which hedge accounting can be applied. Financial instruments derivatives are used to hedge a company's risk exposure, such as commodity prices, exposure to foreign currencies, and interest rates. Hedge accounting consists of a set of rules expected to ensure that gains and losses on hedged items are recognized in the same period, preventing earnings volatility that is not economically justified.

This dissertation will follow a qualitative model to analyze the quality of Financial Statements – the financial reports will be analyzed one by one. The study will cover a period of approximately twelve years – from 2008 to 2020 – to be able to study Lufthansa's behavior also during crisis periods, such as the Financial Crisis of 2008 and the Covid-19 pandemic.

The Agency and Stakeholder theories will also be analyzed in this context since they are frequently employed to outline the interests of shareholders, employees, customers, and the public.

3.2. Research questions

The following research questions were developed to assess how companies disclose information regarding financial instruments in their annual reports.

RQ1: Which disclosures methods about financial instruments is Lufthansa applying?

RQ1 concerns which disclosures methods is Lufthansa applying according to IFRS 7.

RQ2: Did reclassification of the financial instruments' categories occur since 2008?

RQ2 focuses if Lufthansa did a reclassification of its financial instruments and if there is a reason for it.

RQ3: Do events after the reporting period notes occur in the Lufthansa annual reports during the period of frequent events affecting the value of financial instruments (2008-2020)?

RQ3 focuses on potential notes after the reporting period that may impact the value of Lufthansa's financial instruments.

RQ4: Does Lufthansa follow the accounting standards regarding the terminology related to financial instruments in the annual reports?

RQ4 aims to verify if Lufthansa is using the terminology defined in the standards.

RQ5: Does Lufthansa have hedging instruments? Which ones?

RQ5 aims to verify if Lufthansa is using hedge instruments and if they qualify for hedge accounting.

3.3.Lufthansa: background

3.3.1. History of Lufthansa

Lufthansa Group is an aviation company with operations worldwide and a leading European airline group. The largest shareholders of the group are the German Economic Stabilisation Fund (WSF) and Heinz Hermann Thiele. The WSF belongs to the Federal Republic of

Germany and with the help of the Governments of Switzerland, Austria, and Belgium, facilitated relief of the financial consequences of the coronavirus pandemic and preserve the solvency of the group. The stabilization package consists of stabilization aid and loans up to 9bn EUR (Lufthansa, 2020).

Lufthansa covers different business segments, them being Network Airlines, Eurowings, and Aviation Services.

- Network airlines is composed of a multi-hub strategy that offers customers a premium, high-quality product and service, and a comprehensive route network combined with the highest level of travel flexibility. The multi-hub is formed by Lufthansa German Airlines, SWISS, Austrian Airlines, and Brussels Airlines.
- Eurowings includes the flight operations of Eurowings and Eurowings Europe and the equity investment in SunExpress.
- Aviation Services:
 - Logistics - is formed by Lufthansa Cargo AG and the airfreight container management specialist Jettainer group, the time:matters subsidiary, which specializes in urgent consignments, and the equity investment in the cargo airline AeroLogic;
 - Lufthansa Technik - is the world's leading independent provider of maintenance, repair, and overhaul services (MRO) for civilian commercial aircraft. Among the customers of Lufthansa Technik is aircraft leasing companies and operators of VIP jets;
 - Catering - offers classical catering for airlines, as well as lounge management.

3.3.2. Financial position as of 2020

The financial position of Lufthansa took a hit with the pandemic. The group's total revenue was EUR 13.589 million in 2020, 63% less compared to 2019; the operations expenses dropped to EUR 20.846 million, 44% less contrasted to 2019. In terms of profitability and value creation figures in 2020, the Adjusted EBITDA margin was -21,3%; the Adjusted EBIT margin was -40,1%, and the EBIT margin was -54,1%. The Return on Capital Employed (ROCE) and Adjusted ROCE margin were respectively -22,7% and -16,7%.

The group shares were also impacted harshly. On January 2nd, 2020, the airline shares traded at EUR 16,68, the price fell to EUR 7,05 in September and the year ended with the shares trading at EUR 10,82. Through the reporting year, the shares recorded a total loss of 34%. There was a total of 597.7 million shares in the market during 2020. The number of shares increased due to capital increase by WSF.

Executive board members also bought a great number of shares over the course of 2020. The Chief Executive Officer, Carsten Spohr, acquired a total of 39.937 shares for EUR 408.627,36 while the Chief Commercial Officer, Harry Hohmeister, purchased a total of 22.309 shares for EUR 220.502,90.

IV– DATA ANALYSIS

4. Data Analysis

4.1. Research questions

All questions were evaluated according to a binary system: 0 or 1 point, defined differently for each question.

Question No.	Question	Operationalization
RQ1	Which disclosures methods about financial instruments is Lufthansa applying?	0 - Between 0 and 2 disclosure methods 1 - 3 or more disclosure methods
RQ2	Did reclassification of the financial instruments' categories occur since 2008?	0 - No occurrences 1 - At least 1 occurrence
RQ3	Do events after the reporting period notes occur in the Lufthansa annual reports during the period of frequent events affecting the value of financial instruments (2008-2020)?	0 - No 1 - Yes
RQ4	Does Lufthansa follow the accounting standards regarding the terminology related to financial instruments in the annual reports?	0 - No 1 - Yes
RQ5	Does Lufthansa have hedging instruments? Which ones?	0 - No 1 - Yes

Table 1. Methodology summary. Source: Own elaboration

- RQ1: Which disclosures methods about financial instruments is Lufthansa applying?

This question is focused on the disclosure of financial instruments according to IFRS 7. Between 2008 and 2014, Lufthansa listed three disclosure methods: “at fair value through profit or loss”, “loans and receivables” and “available-for-sale financial assets”, and from 2009 onwards, there was added additional information regarding fair value hierarchy.

From 2015 on, Lufthansa listed additionally as disclosure method “derivative financial instruments as an effective part of a hedging relationship” and in 2018 two more methods show up listed: “at amortized cost” and “at fair value through other comprehensive income (with and without recycling)”. “Loans and receivables” stopped being listed in 2018.

To appraise this question, if Lufthansa displayed less than three methods, it is evaluated with 0; if three or more methods, 1. It's considered at least three methods for a positive classification since at least three disclosure methods ensure full disclosure of the financial instruments used.

Every year Lufthansa displayed at least three disclosure methods.

T149 FINANCIAL ASSETS IN THE BALANCE SHEET AS OF 31 DEC 2020						
	Amortised cost	At fair value through profit or loss	At fair value through other comprehensive income (with recycling)	At fair value through other comprehensive income (without recycling)	Derivative financial instruments which are an effective part of a hedging relationship	Total
in €m						
Other equity investments	-	34	-	-	-	34
Non-current securities	31	-	-	23	-	54
of which equity instruments	-	-	-	23	-	23
of which debt instruments	31	-	-	-	-	31
Loans	121	-	-	-	-	121
Non-current receivables	318	-	-	-	-	318
Non-current derivative financial instruments	-	-	-	-	363	363
Trade receivables and other current receivables	2,793	-	-	-	-	2,793
Current derivative financial instruments	-	2	-	-	258	260
Current securities	-	3,654	-	-	-	3,654
of which equity instruments	-	3,654	-	-	-	3,654
of which debt instruments	-	-	-	-	-	-
Cash and cash equivalents	1,806	-	-	-	-	1,806
Total	5,069	3,690	-	23	621	9,403

Figure 2. Financial Assets in the Balance Sheet as of 31 Dec 2020. Source: Lufthansa Annual Report 2020

- RQ2: Did reclassification of the financial instruments' categories occur since 2008?

This question is focused on whether happened reclassifications of financial instruments. Lufthansa reclassified cash flow hedges in three consecutive years: 2018, 2019, and 2020.

In 2018 and 2019 there was a reclassification of cash flow hedges, namely, fuel hedging – options was reclassified to acquisition costs of inventories and exchange rate hedging – futures was reclassified into profit or loss and acquisition costs of aircraft.

T181 STATEMENT OF EQUITY RECONCILIATION FOR CASH FLOW HEDGES

in €m	As of 1.1.2018	Gains or losses from effective hedging relationships	Reclassification to profit or loss	Reclassification to acquisition costs of inventories	Reclassification to acquisition costs of aircraft	As of 31.12.2018
OCI – cash flow hedge reserve	837	490	57	786	33	451
Fuel hedging – options	479	-53	-	786	-	-360
Exchange rate hedging – futures	358	552	57	-	33	820
Interest rate hedges – interest rate swaps	-	-9	-	-	-	-9
OCI – cost of hedging	-61	-90	-	-	-	-151
Fuel hedging – options	-61	-166	-	-	-	-227
Exchange rate hedging – futures	-	76	-	-	-	76
Total	776	400	57	786	33	300

Figure 3. Statement of Equity Reconciliation for Cash Flow Hedges. Source: Lufthansa Annual Report 2018

In 2020, fuel hedging – options was reclassified to profit or loss and to acquisition costs of inventories while exchange rate hedging – futures was reclassified into profit or loss and acquisition costs of aircraft.

T168 STATEMENT OF EQUITY RECONCILIATION FOR CASH FLOW HEDGES 2020

in €m	As of 1 Jan 2020	Gains or losses from effective hedging relationships	Reclassification to profit or loss	Reclassification to acquisition costs of inventories	Reclassification to acquisition costs of aircraft	As of 31 Dec 2020
OCI – cash flow hedge reserve	477	-1,463	-811	-163	41	-54
Fuel hedging – options	43	-1,169	-943	-163	-	-21
Exchange rate hedging – futures	440	-309	132	-	41	-42
Interest rate hedges – interest rate swaps	-6	15	-	-	-	9
OCI – cost of hedging	326	142	-	-	-	468
Fuel hedging – options	-70	2	-	-	-	-68
Exchange rate hedging – futures	396	140	-	-	-	536
Total	803	-1,321	-811	-163	41	414

Figure 4. Statement of Equity Reconciliation for Cash Flow Hedges 2020. Source: Lufthansa Annual Report 2020

To review this question: 0 if no reclassification occurred, 1 if any reclassification happened.

There were reclassifications only in 2018, 2019, and 2020, for the remaining years, (from 2008 to 2017), no evidence was found of any reclassification.

- RQ3: Do events after the reporting period notes occur in the Lufthansa annual reports during the period of frequent events affecting the value of financial instruments (2008-2020)?

This question is centered on if there were any notes after reporting period that might impact Lufthansa financial instruments.

In the 2019 report, Covid-19 is mentioned. Lufthansa predicted in this report that “Adjusted EBIT will fall significantly in 2020 compared with the previous year as a result of the coronavirus crisis”. The impact of the development of fuel costs is also taken into attention at this point.

EVENTS AFTER THE REPORTING PERIOD

Spread of the coronavirus significantly affects financial performance of the Lufthansa Group

The ongoing spread of the coronavirus has led to a significant fall in demand for air travel. Some countries, including the USA, imposed a travel ban for passengers from the European Union. This led to a decline in bookings at the Group airlines and to flight cancellations. In response, the Group has decided to cut its flight capacity significantly and to implement a wide range of cost-cutting measures affecting staff costs, operating costs and project budgets. Steps to raise liquidity will also improve the Group's capital structure.

Figure 5. Events after Reporting Period. Source: Lufthansa Annual Report 2019

To appraise this question: 0 if no impact in financial instruments reported, 1 if yes.

In 2019 Lufthansa mentioned Covid-19 and its probable impact on the after-reporting events. No evidence was found in the remaining years considered in this research.

- RQ4: Does Lufthansa follow the accounting standards regarding the terminology related to financial instruments in the annual reports?

In this question, the goal is to evaluate if Lufthansa is following the IFRS terminology in their reports. Lufthansa meets the requirements of the standard.

To evaluate this question: 0 if Lufthansa does not follow the standard terminology, 1 if yes.

Lufthansa meets the requirements every year considered in this research.

Financial instruments

Financial assets are classified within the Lufthansa Group in accordance with IFRS 9 as “at amortised cost”, “at fair value through profit or loss”, “at fair value through other comprehensive income (with and without recycling)” and “derivative financial instruments as an effective part of a hedging relationship”.

Figure 6. Financial Instruments. Source: Lufthansa Annual Report 2018

- RQ5: Does Lufthansa have hedging instruments? Which ones?

Finally, RQ5 aims to verify if Lufthansa is using hedge instruments and if they qualify for hedge accounting.

Throughout all the years considered in this study, Lufthansa uses financial instruments to hedge interest rate and exchange rate risks and fuel price.

Lufthansa seeks to pay interest on all of their liabilities in Euros at floating interest rates. To do this, interest rates swaps are arranged for interest-bearing, fixed-rate financial debt, and leasing liabilities. Depending on the interest rate structure of the exposure to be hedged, hedges are either classified as fair value hedges or cash flow hedges. The interest rate risk is monitored constantly; strategic interest rate hedges are used as needed in response to different market situations.

For US dollars, Lufthansa is in a net payer position as regards currency risks from its operating business, since fuel payments are dollar-denominated. There is always a net surplus for other currencies. Exchange rate main risks concern the Chinese renminbi, the Swiss franc, British pound sterling, the Japanese yen, and the Indian rupee. Reliant on market liquidity, currency

risks from projected operational exposure are hedged gradually over a period of 24 months through futures contracts, which are accounted for as cash flow hedges.

Fuel costs in 2019 accounted for 18.1% of Lufthansa's operating expenses, therefore, substantial changes in fuel prices can have a major effect on Lufthansa's results. Fuel price risk is restricted using crude oil hedges. As a rule, up to 5% of exposure is hedged monthly for up to 24 months by spread options and other combinations of hedges.

T182 DERIVATIVE FINANCIAL INSTRUMENTS USED FOR HEDGING AS OF 31 DEC 2019

in €m	Positive market value	Negative market value	Change in fair value of hedging instrument - designated risk	Change in fair value of hedging instrument - non-designated risk	Basis adjustment of hedged items	OCI - cash flow hedge reserve	OCI - cost of hedging	Ineffective portion of hedges - designated risk	Ineffective portion of hedges - non-designated risk
Fair value hedge									
Interest rate hedges - interest rate swaps	156	-27	89	-	-90	-	-	-1	-
Cash flow hedge									
Fuel hedging - options	185	-39	404	163	-	402	164	2	-1
Exchange rate hedging - forward transactions	963	-133	-386	315	-	-380	319	-6	-4
Interest rate hedges - interest rate swaps	49	-	4	-	-	8	-	-4	-
Total	1,353	-199	111	478	-90	30	483	-9	-5
of which current	452	-135							

Figure 7. Derivative Financial Instruments used for Hedging as of 31 Dec 2019. Source: Lufthansa Annual Report 2019

Lufthansa started applying IFRS 9 earlier than required, in 2015, given that the standard came into effect in 2018. According to IFRS 9, the requirements to apply hedge accounting are the following:

1. There must be an economic relationship between the hedged item and the respective instrument;
2. The effect of credit risk does not dominate the value changes that result from economic relationships;
3. The hedge ratio of the hedging relationship should mirror the same quantities of the hedged item and hedging instrument.

These requirements were met successfully through 2015 until 2020. The annual reports, already audited, confirm this. From 2008 until 2014, Lufthansa was applying successfully hedge accounting according to IAS 39.

To assess this question: 0 if Lufthansa does not meet the requirements to exercise hedge accounting, 1 if yes.

Lufthansa exercises successfully hedge accounting from 2008 to 2020.

To sum up, the research questions results are as follows:

Year/RQ	RQ1	RQ2	RQ3	RQ4	RQ5	AVG/YR
2008	1	0	0	1	1	0.6
2009	1	0	0	1	1	0.6
2010	1	0	0	1	1	0.6
2011	1	0	0	1	1	0.6
2012	1	0	0	1	1	0.6
2013	1	0	0	1	1	0.6
2014	1	0	0	1	1	0.6
2015	1	0	0	1	1	0.6
2016	1	0	0	1	1	0.6
2017	1	0	0	1	1	0.6
2018	1	1	0	1	1	0.8
2019	1	1	1	1	1	1
2020	1	1	0	1	1	0.8
AVG/RQ	1	0.230769	0.076923	1	1	

Table 2. Results summary. Source: Own elaboration

Looking at this table, one can conclude that:

- RQ1, RQ4, and RQ5 always have information;
- 2018, 2019, and 2020 are the years with the highest classification.

This is not saying that the quality of financial information is neglected, but rather that users of financial reports have more information at their disposal. They can make more informed decisions roughly from 2018 forward.

4.2. Applicable theories

4.2.1. Agency theory

The remuneration of the Executive and Supervisory Board is usually divided into basic remuneration, paid monthly as a salary and variable remuneration, that depends on Lufthansa Group's operating result and the change in this result compared with the previous year. In 2011 the variable remuneration started being based on the operating margin for the Lufthansa Group. Executive Board members are also required to participate in the option programs for managers. These arrangements guarantee that the variable remuneration components are mainly based on Company's performance over several years. However, in years with poor operating results due to extraordinary exogenous factors, the Supervisory Board may award Executive Board members an appropriate individual bonus.

in €	Basic salary	Variable remuneration	Payments from maturing option programmes	Change in fair value of option programmes	Other*	Total
Christoph Franz	1,207,500	578,815	–	324,669	148,906	2,259,890
Stephan Gemkow	862,500	407,989	180,000	18,945	96,446	1,565,880
Stefan Lauer	862,500	407,989	174,000	26,852	161,918	1,633,259
Carsten Spohr (Executive Board member since 1.1.2011)	862,500	407,989	–	32,708	67,523	1,370,720
Effective remuneration for the 2011 financial year	3,795,000	1,802,782	354,000	403,174	474,793	6,829,749

* Other remuneration includes, in particular, the non-cash benefit of using company cars, the discount granted in connection with option programme issues (Note 42), benefits from concessionary travel in accordance with the relevant IATA regulations and attendance fees and daily allowances for work on the supervisory boards of subsidiaries.

Figure 8. Remuneration paid to individual Executive Board in 2011. Source: Lufthansa Annual Report 2011

Fast forward to 2020, and due to the Coronavirus crisis, Lufthansa signed an agreement with WSF that capped variable remuneration. No bonuses or other variable or similar remuneration components are to be awarded to Executive Board members for the duration of the stabilization measures. The same is applied to special payments in the form of share packages, gratuities, and other forms of compensation in addition to the fixed salary, other discretionary payments by the Company, and severance payments not required by law.

Remuneration limited for the duration of WSF stabilisation measures

The framework agreement signed on 29 June 2020 between Deutsche Lufthansa AG and the Economic Stabilisation Fund (WSF) includes significant restrictions on Executive Board remuneration. Subject to contractual claims against the Company arising before 21 June 2020, no bonuses or other variable or similar remuneration components may be awarded to Executive Board members for the duration of the stabilisation measures. The same applies to special payments in the form of share packages, gratuities and other forms of compensation in addition to the fixed salary, other discretionary payments by the Company and severance payments not required by law.

Figure 9. Remuneration limited for the duration of WSF stabilisation measures. Source: Lufthansa Annual Report 2020

T183 EXECUTIVE BOARD REMUNERATION (IFRS)		
in € thousands	2020	2019
Basic salary	5,226	5,934
Other ¹⁾	58	110
One-year variable remuneration	1,058	2,091
Total short-term remuneration	6,342	8,135
Long-term variable remuneration ²⁾	-1,339	1,299
Share-based remuneration	-1,976	-1,945
Current service cost for retirement benefits	3,179	3,291
Total long-term remuneration	-136	2,645
Severance payments	3,500	4,055
Total	9,706	14,835

¹⁾ Other remuneration includes in particular benefits from the use of company cars, discounts in connection with cash outflows from share programmes (➔ Note 39, p. 192ff.) and concessionary travel in accordance with the relevant IATA regulations.

²⁾ Expenses recognised in the reporting year for long-term variable remuneration for the financial years 2018 to 2020.

Figure 10. Executive Board Remuneration (IFRS). Source: Lufthansa Annual Report 2020

While initially, one can say that the variable remuneration is in harmony with the Agent Theory – the managers will be encouraged to fight for the Company’s best interests since their variable remuneration will be influenced by it, in 2020 the opposite happens. In 2020, with no bonus or

any variable remunerations, the managers may be losing the incentive to do what's best for the company and start being selfish and fighting for their interests.

However, there is no current evidence linking the decrease of remuneration to lower quality of the financial reporting, it's still too early to tell.

4.2.2. Stakeholder theory

The stakeholder theory endorses that companies take actions according to the expectations that the stakeholders have of the company itself.

Around the 2008 financial crisis, Lufthansa acted on behalf of its employees and shareholders. Dividends were paid when there were profits to share, and the number of employees increased.

Year	Earnings per share	Proposed Dividend per Share
2008	1.31	0.7
2009	-0.07	0
2010	2.47	0.6

Table 3. Earnings and Proposed dividends per share. Source: Own elaboration

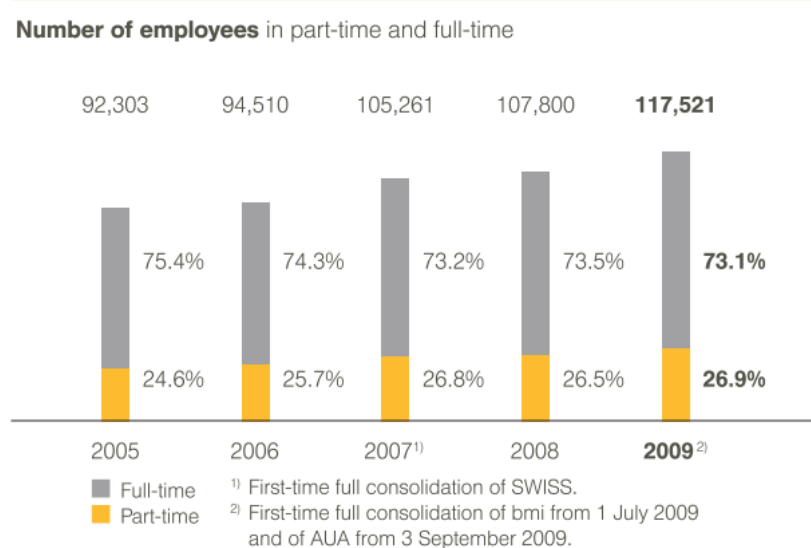


Figure 11. Evolution of the number of employees from 2005 to 2009. Source: Lufthansa Annual Report 2009

When it comes to the pandemic, Lufthansa acted against the stakeholder theory. There were profits in 2019, but the company chose to not pay dividends. The Lufthansa Annual Report was released on March 19th, 2020, showing that the decision was taken already at the start of the pandemic, which may have influenced the decision.

Year	Earnings per share	Proposed Dividend per Share
2018	4.58	0.8
2019	2.55	0
2020	-12.51	0

Table 4. Earnings and Proposed dividends per share. Source: Own elaboration

In terms of employees, the company is also acting against them in 2020, also going against the mentioned theory. The number of employees reduced drastically from 138.353 as of December 31th 2019 to 110.065 as of December 31st, 2020.

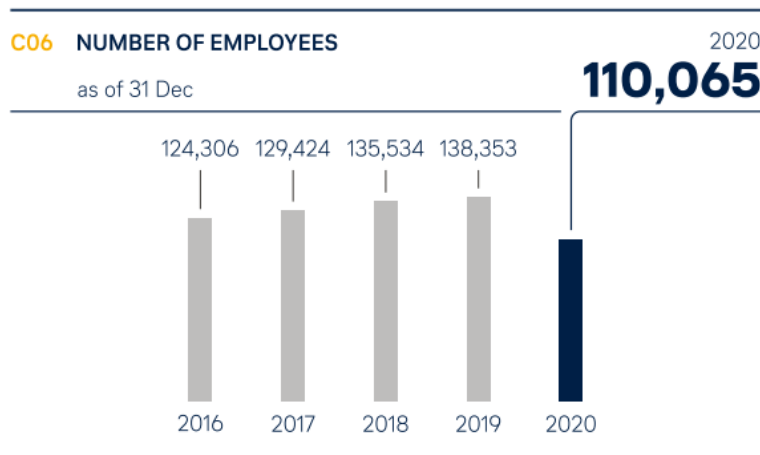


Figure 12. Number of Employees. Source: Lufthansa Annual Report 2020

The company also plans in reducing around 27.000 full-time positions and the number of management positions across the Group will also be reduced by at least 20%. However, Lufthansa human resources management provided crisis management for employees, showing that even if the company is not acting in the best interest of employees, they show some concern with them.

Reduction of around 27,000 full-time positions planned

Beyond the redundancies already carried out and the crisis agreements concluded with the various labour union partners, additional measures to restructure the Lufthansa Group and its associated companies will be necessary. As part of the ReNew restructuring programme, the Group's workforce will be structurally adjusted to the market decline caused by the crisis, with the elimination of 27,000 full-time positions according to the latest plans. The number of management positions across the Group will also be reduced by at least 20%.

Figure 14. Reduction of around 27,000 full-time positions planned. Source: Lufthansa Annual Report 2020

Human resources management provides crisis-management support for employees

Coping with the coronavirus crisis places high demands on employees and leads to enormous stress. In this respect, in the 2020 financial year, the Group's human resources management aimed to provide employees with the best possible support in coping with the crisis. An important aspect of achieving this was to create a high level of transparency about upcoming restructuring measures and to offer timely and continuous information.

Figure 13. Human resources management provides crisis-management support for employees. Source: Lufthansa Annual Report 2020

V – CONCLUSIONS

5. Conclusions

The main goal of this study is to assess what influences managers to disregard the quality of financial information, namely regarding financial instruments, by performing a qualitative case study. It is curious to understand if the disregard of financial information occurs more during crisis periods, leading to this investigation to cover the period 2008-2020. During this period, two financial crises occurred: the 2008 Global financial crisis and the Coronavirus pandemic in 2020. The dissertation is applied to one company in specific – Lufthansa Group.

The lack of studies in this area is notorious. The quality of the financial reporting can hinder or make it easier for investors to analyze and forecast their involvement with the company: either invest in it or withdraw completely.

The aviation sector has been growing over the years and it has constantly resisted recession cycles. The increasing demand for passenger and freight services, technological progress, and investment in the area, has magnified the output of the aviation industry (Industry High-level Group, 2019).

The 2008 financial crisis left its mark in the airline industry (Franke & John, 2011). There was an exceptional spike in fuel prices and a sudden fall in air traffic (IATA, 2009). In 2020, another crisis marked the airline industry. The COVID-19 pandemic mostly grounded the industry, leaving mostly cargo flights (IATA, 2020). (ICAO, 2021) estimates that the impact of the pandemic in 2020 when compared to 2019 levels, caused a decline in international tourism of 1.3 trillion USD.

The study is focused on financial instruments due to their volatility. Financial instruments are used to help companies manage the risks they are exposed to, such as interest rates, commodity prices, and exchange rates oscillation (Birt et al., 2013). According to (Ross, 2012), financial instruments suffer volatility that not often is constant and generally fluctuates over time.

Financial derivatives, one type of financial instruments, is a contract between two or more parties whose value is derived from the value of an underlying instrument, that usually changes

in value after changes in an underlying market variable. Derivatives offer a way to hedge exposures companies are exposed to (Campbell et al., 2019).

(Phua et al., 2021) argue that using financial derivatives impacts earning volatility and influences earnings management practices.

(*IFRS 7 Financial Instruments: Disclosures*, n.d.) concerns all disclosure requirements regarding financial instruments. Every company that trades financial instruments needs to apply this standard (Bischof, 2009). Companies often use financial instruments derivatives to hedge their risk exposure: commodity prices, exposure to foreign currencies, interest rates. While derivatives are a valuable instrument to offset risk exposure, they also may build up to dangerous vulnerabilities. The accounting issue with derivatives was that financial statements did not adequately reveal their impacts. Either financial instruments were not recognized on balance sheets, or transactions were designed intentionally to keep them off the balance sheet (Gebhardt, 2012).

IFRS 9 (former IAS 39) specifies the conditions that must be cumulatively fulfilled so that a hedging relationship qualifies for hedge accounting. (*IFRS 9 Financial Instruments*, n.d.) recognizes three types of hedging relationships: “fair value hedge: a hedge of the exposure to changes in fair value of a recognized asset or liability or an unrecognized firm commitment, or a component of any such item, that is attributable to a particular risk and could affect profit or loss; cash flow hedge: a hedge of the exposure to variability in cash flows that is attributable to a particular risk associated with all, or a component of, a recognized asset or liability (such as all or some future interest payments on variable-rate debt) or a highly probable forecast transaction, and could affect profit or loss; hedge of a net investment in a foreign operation as defined in IAS 21”. Under IFRS 9, companies need to change from looking back to forward-looking (Gornjak, 2017).

The aviation industry was selected because it is an industry that has been growing immensely and that highly relies on financial instruments to protect itself from fuel price fluctuations, interest rates, and exchange rates.

Throughout the years, one can tell that the quality of financial reporting improved in terms of having more information available, at a constant pace. The exception relies on 2020, where there's slightly less information available, in a crisis year. Although this doesn't necessarily

mean anything since the results only imply this because there are no notes after reporting regarding impacts in financial instruments – this was noted in the 2019 annual report only. Also, 2020 is at the same level as 2018 in terms of information available.

Over the years, Lufthansa Executive and Board members have had variable remuneration dependent on long-term goals and performance of the company, which agrees with the Agency theory. The Agency theory is, according to (Eisenhardt, 1989), concerned about solving two issues that can occur in agency relationships. The first issue would be the ambitions of the principal (one party) and the agent (the other party); and how challenging and expensive is to verify what the agent is doing. The foundation of agency theory is on the premise that the interests of principals and agents deviate (Hill & Jones, 1992) and that agents have more information than principals and that this asymmetry poorly impacts the principal's competence to supervise if their interests are being accurately served by the agents (Adams, 1994).

In 2020, Lufthansa received funds from the German Economic Relief Fund due to Coronavirus induced crisis. This led to the company's variable remuneration, such as bonuses, being cut for the duration of financial aid received. In the light of the Agency theory, there is less motivation for managers to fight for the company's best interests since their remuneration got capped, but there's not enough evidence yet to prove if this will lead to a decrease in the quality of financial reporting.

The stakeholder theory is “a set of propositions that suggest that managers of firms have obligations to some group of stakeholders” (Freeman, 2015), meaning that companies should act towards their shareholders. During the 2008 financial crisis, Lufthansa acted on behalf of its stakeholders, namely shareholders and employees. Although, due to the pandemic, Lufthansa was forced to reduce the number of employees and stopped paying dividends even when there were profits to be distributed.

To conclude, this study didn't lead to any particular motivation in disregarding the quality of financial information, only a few triggers that can decrease the quality itself.

This study was limited by the fact that there were few or no studies in this area and by lack of information after the COVID-19 pandemic, given that it is still happening. As a suggestion for future work, one could evaluate the post-pandemic years, when there will be more information

available, as a continuity to this study. The study could also be replicated to other companies in the industry so a conclusion can be drawn from the whole air transport sector.

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