

**STRATEGIES TO AVOID BANKRUPTCIES IN THE UNITED STATES  
AVIATION INDUSTRY**

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RAHAMAN SHERIFF M.S, MBA, B.E

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AVIATION INDUSTRY**

by

RAHAMAN SHERIFF M.S, MBA, B.E

Supervised by

Dr. Luka Leško, Ph.D., DBA (Dean)

APPROVED BY:



Apostolos Dasilas

---

Dissertation chair

RECEIVED/APPROVED BY:

*Rense Goldstein Osmic*

---

Admissions Director

### **Dedication**

I dedicate this work to my loving wife Anisha, my daughter Niqqath, and my son Arshath Sheriff, whose support and inspiration made this journey possible.

I also extend my gratitude to my dear friends Dinesh, Krishna, and Komaleshwari for their encouragement throughout this journey.

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ABSTRACT  
**STRATEGIES TO AVOID BANKRUPTCIES IN THE UNITED STATES  
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Dissertation Chair: <Chair's Name>  
Co-Chair: <If applicable. Co-Chair's Name>

Bankruptcy is a legal process by using which financially distress firms, individuals, and sometimes governments resolve their debts. There might be circumstances in which the entity is unable to pay the debt, during which Bankruptcy law plays its role. The vision of bankruptcy terrifies many, some feel it humiliating and a distressing process, while others find it an escape mechanism from creditors. Bankruptcy is broadly classified into two types, which are debtor's petition and creditors' petition. In the case of debtors' petition, it can be an individual, company or entity who is indebted to another party known as creditor. When faced with financial challenges or any inability to meet the monetary obligations, the debtor has the option to seek bankruptcy protection. Likewise, in a creditors petition, creditors who can be individuals, companies or entities to whom the debtor owes money can issue a statutory demand to prompt payment. Non-compliance with this demand can push creditors to initiate bankruptcy petitions.

The aviation industry has witnessed remarkable evolution, due to the surge in demand for air travel. In the year 2004, approx. 1.9 billion passengers took up to the skies, fast forward to 2025 and this figure has multiplied nearly 5 times to 9.8 billion passengers,

which shows a substantial growth in the desire to air travel. Furthermore, the economic significance of aviation industry was truly demonstrated by Air Transport Action Group, which is a global employment of 86.5 million jobs were provided with a colossal contribution of \$4.1 trillion to global GDP. These statistics clearly show the industry's economic impact and its growth trajectory. Entrepreneurs and investors do recognize the potential of aviation sector, with the aim of capitalizing on this growing demand either by establishing new airlines, expanding their operations or addressing problems within existing airlines.

In 2024, among the top 20 airports worldwide based on passenger traffic, 8 of them were from the United States. This shows how United States is playing a vital role in the aviation industry. Despite this, the U.S airline sector has experienced recurrent financial challenges, with 200+ airlines filing for bankruptcy since 1978 airline deregulation act, which is one of the highest compared to other countries. This aim of this study is to find out the key factors which have pushed airlines to file for bankruptcy through the case-study analysis in the U.S industry and how airlines could overcome this failure by focusing on key successful factors, including structure, culture, strategic alliances, planning and forecasting, technology, marketing and branding and outsourcing through semi-structured interviews.

## List of Abbreviations

AI – Artificial Intelligence

DGCA – Directorate General of Civil Aviation

FAA – Federal Aviation Administration

FSC – Full-Service Carrier

GDP – Gross Domestic Product

IATA – International Air Transport Association

ICAO – International Civil Aviation Organization

IT – Information Technology

LCC – Low-Cost Carrier

NVivo – Qualitative Data Analysis Software

RBV – Resource-Based View

RQ – Research Question

U.S. – United States

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## CHAPTER I: INTRODUCTION

### 1.1. Introduction

Bankruptcy is a legal process where financially distressed firms or individuals with overwhelming debts follow a structured process to address their debts. It represents a critical event in the lifecycle of a firm, deeply affecting its operational, financial, and strategic dimensions (Shireesha et al., 2024). Aviation industry is highly vulnerable unlike other sectors to macroeconomic factors such as oil crises, natural disasters, armed conflicts, terrorist attacks, economic recessions and disease outbreaks (Suau-Sanchez et al., 2020). These factors disrupt both operations and demand more severely than any other sector.

Industry specific use cases help in contextualizing these vulnerabilities by highlighting recurring strategic flaws. Some of the major airlines which have filed for bankruptcy in the United States are Pan American world airways (Pan Am), Trans world airlines (TWA) and Eastern airlines), which highlights the consistent financial challenges in the aviation industry (Tolkin, 2010). Likewise, global carriers like Avianca and LATAM filed for bankruptcy during covid-19, highlighting the substantial impact on the aviation sector due to pandemic.

Strategically, these failures highlight mismatch between traditional airline business models and changing external conditions. Critical factors leading to airlines bankruptcy are labor inefficiency, operating inefficiencies, unsuccessful fuel hedging programs and high long-term debt (Tolkin, 2010). Unlike many other industries, where the businesses can lower their fixed costs when demand drops, airlines must still pay fixed costs

like aircraft leases, airport charges and staff salaries which makes this industry more vulnerable to economic downturn and recessions (Köse and Aktan, 2022).

Financial pressure has increased on airlines in the United States, specifically on Full-service carriers, due to the rise of Low-cost-carriers (LCC) like Southwest airlines and Ryanair. These LCC's operate in lean business models using their aircraft more frequently, minimizing service offering and relying mostly on direct sales to reduce cost unlike FSC's (Ratuszniak and Khmelyarchuk, 2024). However, FSC's like American airlines and Air France-KLM face high operating cost due to their wide range of routes, premium service offerings and complex operational structures. These factors make them more vulnerable during the period of uncertainty or to macro-economic shocks.

COVID 19 reinforced the need of strategic adoption. The pandemic resulted in approx. 60% drop in airline revenues (IATA, 2021) with total losses reaching \$137.7 billion globally in 2020 (World Bank, 2022). Additionally, from the cargo front, at the end of Mar2020, cargo capacity was dropped by 35% compared to 2019 performance (Youssef and Al Naqbi, 2021). To withstand the crisis, airlines should develop business models that can withstand macro-economic shocks, detailed liquidity planning, strategizing cost management and digital transformation (Mongardi and Lentfer, 2023). The main purpose of this study is to explore strategic measures which airlines can adopt to increase their financial strength than just identifying the causes behind the bankruptcy.

To identify and analyze the key factors influencing bankruptcy, theoretical frameworks like Resource based view (RBV) theory, financial distress theory and Agency theory are few of them which are used to explore and gather valuable insights for this study. From the context of this research, Agency theory is used to explore RQ1 by examining how managerial decisions with a focus on short term goals can contribute to competitive

disadvantages and can trigger financial failure. Likewise, financial distress theory highlights how decrease in profitability, increase in debt has a direct co-correlation with the failure of the firm, insisting on the need for financial planning and strategic adaptation (Fakhar et al., 2021). Furthermore, through the lens of financial distress theory, volatility in fuel prices and economic recessions are the other two constructs which are explored to address the causes outlined in RQ1. These insights are relevant from the RQ1 perspective, which guide the analysis of case studies to uncover the root causes of financial collapse.

From RQ2 perspective, which aims to develop strategies to prevent financial distress, RBV theory is used to examine how internal strategic resources and operational capabilities contribute to firms' resilience. Likewise, Leadership effectiveness and governance, will be viewed through the lens of agency theory to examine how poor governance structure and misaligned incentives can influence financial decisions during crisis times and the impact of effective financial resilience strategy through financial distress theory. Each theory plays a crucial role in shaping both the problem diagnosis for RQ1 and by providing solution development for RQ2. This study aims to combine these frameworks to provide a full picture of the factors behind bankruptcy causes and how airlines can mitigate through these challenging situations with strategically developed frameworks.

The key factors contributing to the airline bankruptcies in the U.S are not isolated, instead they are inter-linked with each other. For example, fixed operational expenses like aircraft maintenance fees and manpower cost creates major difficulties to airlines during cyclic demand which might be due to seasonality, economic recessions or change in consumer spending behavior. This increases the debt burden of the airlines, which gets further worsened by misguided management decisions.

This research will contribute to the benefit of both practical and academic

discussions. For policy makers and industry stakeholders, this study will provide actionable insights which can be adopted to make sure airlines are financially stable for a long-term duration. While past events, like Avianca and LATAM have been widely studied, there is limited academic focus on understanding the recurring patterns behind these historical failures. This study will analyze the reasons behind these failures and how they can be avoided in future, than simply describing what has happened. To conclude, this study aims to address a critical gap in the existing academic research, which is to identify the causes behind U.S airline's bankruptcy and to develop prevention strategies which policy makers and airline executives can execute to mitigate bankruptcy.

## **1.2. Research Problem**

Bankruptcy is a recurring issue which occurs in the Aviation industry, especially in the United States, with over 162 airlines filed for bankruptcy under chapter 11 and 7 since 1978 deregulation (U.S. Government Accountability Office, 2005). However, the causes behind this complex, multifaceted situation are yet to be understood fully. To understand the causes behind the bankruptcy in aviation industry, further exploration should be performed on different aspects, like economic recessions, fuel price volatility, excessive debt burden and poor management decisions and how they contribute to the bankruptcy of airlines in the United States. While previously conducted research tends to identify the major causes behind bankruptcy, however, identifying the trends and recurring causes behind bankruptcy across multiple airlines and providing strategies to overcome this challenging situation is something which is not available currently.

Research so far majorly focuses on major standalone causes which are triggering bankruptcy, for instance, how increase in fuel prices can impact airline stock returns (Horobet et al., 2022), and how economic recession can impact financial performance of the

airlines significantly (Ismail and Jenatabadi, 2014). However, this research does not provide a framework that links these causes to strategic issues such as high debt burdens, outdated fleet planning, poor network strategy management and ineffective restructuring policies. As part of this study, there are two research gaps which are planned to be addressed. The first gap is to identify cross-airline trends behind the causes of bankruptcies in the U.S aviation industry, by analyzing external factors such as fuel price volatility, economic recessions and internal factors such as excessive debt burdens and the impact of poor management decisions. Analyzing these major factors will help this research identify the trends and their importance in leading to bankruptcy. This gap acts as a building block for this research.

The second research gap aims to identify and develop a conceptual strategic framework by using which policy makers, industry consultants and government entities can use to avoid or mitigate bankruptcy in the United States aviation industry. Even though debt stressed airlines try and adopt different strategies to address their financial situation, with most of them opting for Chapter 11 bankruptcy code, i.e., restructuring their debts while continuing their operations, there is no clear framework available by using which airlines can address the bankruptcy situation. The outcome of the conceptual framework will explore how adopting different strategies like operational restructuring, focusing on revenue diversification, effective decision making, building strong boards, reducing debt burdens and implementing risk management systems can mitigate the bankruptcy situation in the U.S aviation industry. The aim of this study is to get these two gaps addressed by identifying the trends behind the causes of bankruptcies and by developing strategies which can be used to address financial distressed airlines.

### **1.3. Purpose of Research**

The purpose of the research is intended to identify the key factors which are

contributing to airline bankruptcies using qualitative methods and to build strategies on how to address them using clear conceptual frameworks. The research also highlights the strategic measures which airlines can adopt to overcome both internal and external challenges, for instance fuel price volatility, economic recessions, high debt burdens and poor management decisions which impact the financial structure of the airlines. Furthermore, this research achieves this goal through a qualitative study, with RQ1 focused on case study analysis and RQ2 based on semi-structured interviews with aviation experts within the aviation sector.

#### **1.4. Significance of this Study**

The aim of this study is to provide unique contributions to both academic knowledge and industry practice by identifying the causes behind why airlines file for bankruptcy and what strategies can be adopted to mitigate them. From the academic perspective, this research addresses a critical gap by identifying external economic factors and internal operational factors linked with airline bankruptcy patterns. Even though previous studies have highlighted some individual challenges which airlines face such as fluctuating fuel prices and high fixed costs (Doganis, 2005), this study uniquely integrates these challenges into an in-depth framework that addresses major bankruptcy causes and recovery strategies. By combining the outcome of RQ1 via case study analysis and RQ2 with semi-structured interviews, the aim of this research is to provide advanced theoretical understanding of how external shocks and internal strategic moves can influence airline financial outcomes. Likewise, this study contributes to how effective business models and usage of latest technologies can act as an adaptive strategy, especially in post-pandemic era (Amankwah-Amoah et al., 2021; Halteh et al., 2024).

Likewise, from an industry practice perspective, this study aims to deliver conceptual framework, which airline managers, policy makers and industry leaders can

implement to gauge and improve financial health of airlines proactively. This framework delivers pragmatic patterns of triggers pushing airlines towards bankruptcies. This further enables decision makers to optimize cost structures, develop and implement debt restructuring plans and provide flexible strategic plans to address macroeconomic uncertainties. For decision makers, this research aims to provide thick evidenced based insights, which supports financial challenges to stabilize airlines, especially during crisis times. For example, debt restructurings and effective board formation can be major areas which can be prioritized based on the exposures identified through this study. As an outcome, airline stakeholders can apply these strategies to not only mitigate bankruptcy risks, however, can also enhance long term growth and stay competitive enough in future.

From a broader impact perspective, the frameworks developed can potentially support other transport sectors such as rail, shipping and roads which face similar financial and operational challenges. These industries can leverage insights from this study with slight adaptation to building financially resilient firms against external shocks and internal misalignments. As a summary, this research aims to build the gap between academic theory and real-world challenges which airlines face in their day-to-day cycle. The outcome of the research provides strategies to manage financial risks and to mitigate bankruptcies. My aim is that the recovery strategies which are built as part of this study can be utilized to improve businesses from a wider perspective, to create stronger business domain, beyond the aviation industry.

### **1.5. Research Purpose and Questions**

The purpose of this study is to investigate the underlying causes and identify recurring patterns that results in financial distress and bankruptcy among the U.S. airlines between 2000 to 2022. Through the lenses of financial distress theory, agency theory, and

resource-based view, the study aims to understand how external economic disruptions, internal managerial decisions, financial structures, and strategic capabilities influence the financial distress and recovery of airlines. Furthermore, from the RQ1 perspective, this study determines the collective impact of economic and operational vulnerabilities, governance and leadership dynamics, and financial architecture on airline bankruptcy risks. Likewise, by addressing RQ2, it explores the internal strategic capabilities, leadership mechanisms, and financial management practices that enable airlines to enhance resilience and build long-term financial stability. In addition, this study proposes practical and theory-driven strategies which airlines can adopt to overcome both internal and external challenges, with strategies examined through six key constructs: operational efficiency, revenue diversification, strategic decision making, board effectiveness, debt management, and risk management systems (including fuel volatility hedging).

Two research questions which this study focuses on is as follows:

**RQ1:** How do internal managerial decisions and external economic disruptions collectively influence financial distress and bankruptcy risk among U.S. airlines, as examined through the lenses of Financial Distress Theory and Agency Theory?

**RQ2:** What internal strategic capabilities, leadership mechanisms, and financial management practices enable U.S. airlines to prevent financial distress and build long-term resilience, as guided by the Resource-Based View (RBV), Agency Theory, and Financial Distress Theory.

## CHAPTER II: REVIEW OF LITERATURE

### **2.1. Theoretical Framework**

#### **2.1.1. Conceptual Framework for RQ1: Financial Distress Mechanisms in U.S. Airlines**

The global airline industry is extremely volatile and susceptible to the changes in the current environment and market conditions (Stepanyan, 2018). The financial pressure in the aviation industry is driven by two main sources. External factors like volatility in fuel prices and economic recessions which create huge stress on airline operations. Likewise, some of the internal challenges which accelerate the airlines towards financial distress are financial leverage and management inefficiency. This section of literature review explores these multifaceted causes contributing to airline bankruptcies, grounded by Financial Distress theory and Agency Theory.

Financial distress theory states that firms face insolvency challenges when faced with revenue or liquidity decline, making it difficult for them to meet their financial liabilities (Altman and Hotchkiss, 2006). Two key factors, which are fuel price volatility and economic recessions are primary drivers causing such distress in the aviation industry. First, Fuel price volatility is defined as ‘unpredictable variations in jet fuel prices that create cash flow uncertainty for the airlines’ (Morrell and Swan (2006). As it raises operational costs, fuel price volatility has a direct effect on airline solvency. IATA (2024) states that fuel costs represent 31% of the total airline expenses, making airlines extremely sensitive to fluctuations in the global market. As explained by financial distress theory (Altman and Hotchkiss, 2006), sudden increase in fuel prices, without equivalent revenue growth, can destroy an airline’s liquidity (Campello et al., 2009). Viewed conceptually through the lens

of financial distress theory, fuel price volatility directly reduces the available cash flow for debt servicing and operational continuity, creating dependency on airlines on more short-term borrowing, therefore increasing the financial leverage. This external factor fuel price volatility directly links to internal financial response, which is increasing the debt and creating cash flow instability, defining how external shock acts as a trigger for financial distress. Airlines that lack sufficient risk management practices or hedging strategies are especially vulnerable to this fuel prices volatility (Gelirli and Kısacık, 2024). This theoretical linkage demonstrates how unchecked volatility in one single cost component, when not addressed on time, can lead to broader financial distress.

The next key external factor, the Economic recession, is the most powerful and widely recognized triggers of financial distress and bankruptcy in the airline industry. As defined in the study of Ratnatunga, 2025, a continuous decline in GDP over two consecutive quarters, accompanied by reduced spending from both consumers and businesses, then this can be officially called as recession period. According to Taliah and Zervopoulos (2024), economic recessions can be initiated through multiple factors which include financial crises, pandemics or other major events. From an airline's perspective, economic recession creates a direct impact on financial performance as air travel demand is extremely sensitive to business cycles. During the recession period, there will be a sharp decline in passenger demand, leading to a very minimum to no revenue. However, standard fixed costs such as fleet leasing, labor, and airport fees remain constant, thus creating cash flow instability and exposing airlines towards operational vulnerability.

Consistent with financial distress theory (Altman and Hotchkiss, 2006), recessions increase the risk of cash flow due to decline in revenue, creating issues with airlines ability to meet its fixed debit obligation therefore raising the probability of

bankruptcy. To support this theory, empirical studies conducted by Campello et al. (2009) highlight the severe negative impacts on airline financial performance during recession periods, which includes both the early 1980's downturn and 2008-2009 global financial crisis. Financial distress theory explains that such revenue shocks increase the liquidity pressure, impacting the repayment of fixed obligations, which includes debt repayment, therefore increasing the bankruptcy risk.

Beyond external economic factors, internal operational factors also play a vital role in driving airlines towards bankruptcy. Firstly, the focus is on financial leverage, which is a primary internal vulnerability for any airline. Financial leverage represents the significant financial commitment which airline carries due to heavy capital investment in fleet acquisition and infrastructure (Alsulami, 2025). When firms gather excessive debt, they become financially dependent, losing the financial flexibility of responding effectively to economic recessions or market downturns (Cevik and Miryugin, 2020) and preventing them from pursuing profitable investments (Myers, 1976). Consistent with financial distress theory, high leverage directly increases bankruptcy risk by rapidly increasing the fixed interest obligation, reducing cash flow into operations, therefore limiting the firm's ability to build financial buffers.

Airlines with high debt to asset ratio above the industry median, are therefore vulnerable to insolvency risk. This furthermore prevents them from implementing strategic adjustments during early warning stages, often resulting in critical distress phase, where recovery becomes impossible. This is supported with empirical evidence from major U.S airlines such as Delta and United Airlines who opt for Chapter 11 bankruptcy due to excessive debts which prevent them from implementing an effective turn-round strategy, henceforth converting operational challenges into insolvency (Ciliberto and Schenone,

2012).

The next construct Management inefficiency is a critical internal factor which drives airlines towards failure. According to Agency theory, as articulated by Jensen and Meckling (1976), when the interest of managers (agents) diverges from the shareholders (principals), managers may prioritize actions favorable to serve their personal interests, such as market expansion to achieve their short-term goal, over long-term value creation. As highlighted by Sewpersadh (2022), these decisions are related to market expansion, pricing strategies, mergers, and acquisitions, which can increase the financial risk of the airlines when driven by short-term incentives or misaligned interests. These patterns are further supported by empirical evidence as Hecker (2001) mentions in his research, which is fares at airline dominated hubs were 41% higher compared to other airports, clearly highlighting how managerial control over markets can lead to pricing strategies that favor short term profitability over long term sustainability.

Another extreme of agency costs leading to failure outside the United States is the Kingfisher airlines. Even though Kingfisher had major financial issues, it continued to expand by incurring massive debts. By 2012, kingfisher defaulted on INR9,000 crore in loans with failed to pay taxes and employee salaries (Sharma and Gupta, 2019). This outcome is consistent with the agency theory, where poor strategic planning with no vision, weak governance, leadership failure led to unsustainability, resulting in bankruptcy. To summarize, volatility in fuel prices, economic recessions, financial leverage and management inefficiencies are some of the major causes behind airline bankruptcies.

To conclude, the literature review so far provided strong empirical and descriptive evidence stating volatility in fuel prices and economic recessions increase financial and operational pressures on airlines, leading to bankruptcy. While legacy airlines

being most vulnerable due to their cost structure and high debt burden, low-cost carriers have demonstrated high financial resilience due to their lean business models. Furthermore, these studies have focused mostly on short-term crises management strategies, which creates a clear gap of how the U.S airlines can convert crises driven strategic adjustments into sustainable long-term strategies to withstand bankruptcy.

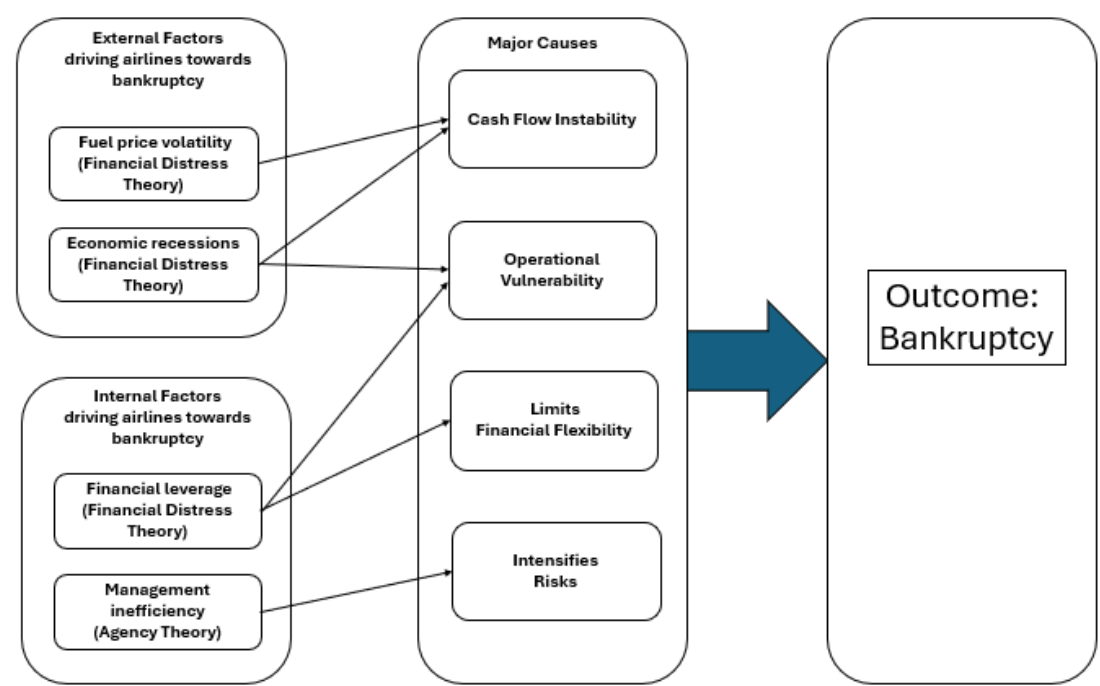


Figure 1: A Conceptual Framework to Elucidate Factors Contributing to Aviation Bankruptcy

Source: Following Morrell and Swan (2006), Ratnatunga (2025), Alsulami (2025) and Sewpersadh (2022), author made

| <b>Construct</b>               | <b>Theory</b>             | <b>Key Reference</b>    |
|--------------------------------|---------------------------|-------------------------|
| <b>Fuel Price Volatility</b>   | Financial Distress theory | Morrell and Swan (2006) |
| <b>Economic Recession</b>      | Financial Distress theory | Ratnatunga (2025)       |
| <b>Financial Leverage</b>      | Financial Distress theory | Alsulami (2025)         |
| <b>Management Inefficiency</b> | Agency theory             | Sewpersadh (2022)       |

Table 1: Mapping of RQ1 constructs with their respective theory and citations,  
author made

As shown in Figure 1, this framework is based on two foundational theories, highlighting the four main causes that contribute to airline bankruptcies. Holistic views provide how financial distress theory and Agency theory provide a detailed connected explanation of airline bankruptcy. The external factors, Fuel Price Volatility (Morrell and Swan, 2006) and Economic Recessions (Ratnatunga, 2025), along with the internal factor Financial Leverage (Alsulami, 2025), are conceptualized based on Financial Distress Theory (Altman and Hotchkiss, 2006). This theory section explains how external shocks and high fixed obligations can impact liquidity and push airlines towards insolvency. Likewise, internal factor which is Management Inefficiency is conceptualized based on Agency Theory (Jensen and Meckling, 1976), which highlights that a divergence of interest between managers and shareholders can lead to value-destroying decisions, ultimately increasing bankruptcy risk (Sharma & Gupta, 2019, Sewpersadh, 2022). Together, this conceptual framework highlights the multifaceted internal and external causes leading to airline failure with the support of financial distress theory and Agency theory.

### **2.1.2. Conceptual Framework for RQ2: Strategic Capabilities for Financial Resilience**

Aviation industry in the United States has undergone through a major transition

with over 200 airlines going bankrupt since 1978 Air deregulation act. Further disruptions were caused by the COVID-19 pandemic starting 2019. Previously, bankruptcies in the aviation industry were driven majorly by factors such as poor management decisions and high debt burden. However, since the pandemic, it is evident that the aviation industry is highly fragile to external shocks. Traditional bankruptcy views on bankruptcy have evolved under the rapidly globalizing world, where airlines face unforeseen global crises like pandemics, economic recessions, and climate change disruptions. Therefore, bankruptcies in the aviation industry are no more financial mismanagement cases, however a failure of a whole system caused by multi-faceted factors.

The COVID-19 pandemic highlighted how fragile the aviation industry is (Sun et al., 2021). Airlines faced major losses due to the drop in travel demand and border closures. For many airlines, this situation not only increased their existing financial issues, however caused further unforeseen challenges. During the COVID situation, many airlines were pushed to make major changes to their business models like reducing flights, grounding planes and laying off staff to remain operational in the business. This situation exposed the limitation of reactive planning and highlighted the need for robust, theory based strategic frameworks. As stated by Suau-Sanchez et al., (2020) the airline's ability to quickly adapt and perform operational changes was key in addressing the pandemic situation.

To address these complex and multifaceted challenges, this study proposes a theory defined conceptual framework with three pillars, which are Internal strategic resources, Leadership effectiveness and Governance and Financial resilience. This framework is designed with insights from academic literature and empirical industry case studies to offer airlines a structural and adaptable approach to withstand future unforeseen shocks. Each pillar is developed from theoretical models which includes Resource based

view (Barney, 1991), Agency theory (Jensen and Meckling, 1976) and financial distress theory (Ohlson, 1980), making sure that the framework supports both academic literature and relevant to real world scenarios.

The first pillar, Internal strategic resources and operational capabilities, is focused on building core competencies and assets to achieve a sustainable competitive edge as proposed by Resource based view, with primary focus on two constructs which are operational efficiency and Revenue diversification. The first construct, Operational efficiency refers to an firms ability to maximize its input conversion into output effectively by reducing waste and increasing value across critical operations (Slack et al., 2010). This refers to how an airline increases its performance with a focus on available seat kilometers, revenue passenger kilometers, maximizing profit or service quality, with minimal usage of resources across key areas like ground operations, maintenance, overhaul and human resources (Low and Yang, 2019). This resource allocation technique is critical for preserving cost advantages and financial stability, therefore directly impacting an airline's ability to avoid insolvency. As stated by Barney (1991), firms' sustainability and competitive advantage is driven by a combination of its unique resources and capabilities that are valuable, rare, inimitable and non-substitutable.

From the perspective of Resource based view theory (RBV), operational efficiency is considered as valuable capability as it drives cost advantage, rare as not all airlines achieve the efficient scale and difficult to imitate, hence a potential source of sustainable competitive advantage. To support this theory, empirical study conducted by Pinchemel et al. (2022) on four largest private Brazilian airlines; Avianca, Azul, Gol and Latam states that operational efficiency is achieved through greater offers of routes and flight frequency, which significantly enhance the revenue passenger kilometer (RPK). Furthermore,

studies conducted by Merkert and Hensher (2011), highlight how operational efficiency is not only influenced by external factors, but also by internal factors such as effective fleet planning and strategic decision making also play a vital role. To summarize, the above-mentioned findings confirm that operational efficiency when looked through the lens of RBV theory, it can be referred to as a strategic internal capability which airlines can use effectively to sustain profitability, diversify risk exposures and create financial resilience to withstand unforeseen risk, thus reducing the bankruptcy risk.

As part of the first pillar the next construct which this research will focus on here is ‘Revenue diversification’. Paethrangsi (2021) and Mumbower et al. (2022) in their study denote that revenue diversification in airlines is generally a strategy of increasing revenue beyond general source of income, which is via ticket sales, which includes ancillary services, cargo operations and loyalty programs. The aim here is to enhance profitability and to reduce dependency on a single source of revenue which is core passenger revenue. Through the lens of RBV theory, these diversification strategies are considered valuable as this stabilizes cash flow during economic downturns, is rare as not all carriers can lead this shift and are fully not imitable, therefore providing a competitive advantage over other carriers.

To support this theory, evidence gathered by Liu et al. (2024) in their study shows that global ancillary revenue increased to \$38.1 billion in 2014 from \$2.5 billion in 2007, becoming a major source of revenue to the airline industry. Furthermore, this study also states that airlines with such diversified revenue strategies report stronger operating revenue, creating financial buffers during challenging times. Likewise, Sengur et al. (2022), also highlighted how Turkish airlines, Lufthansa, emirates and virgin Atlantic adopted diversified revenue strategies such as cargo transportation, in-flight products, ground handling etc. to reduce operational risks and to increase revenue. From the perspective of RBV (VRIN

capabilities), revenue diversification represents an important internal capability which mitigates volatility, enhances stability and plays a critical role in reducing bankruptcy exposure. To conclude, Internal strategic resources, operational efficiency and revenue diversification together supports firm's ability to absorb external shocks, by reducing vulnerability to external disruptions, diversifies risk exposure and enhances operational resilience.

The second pillar Leadership Effectiveness and governance emphasize the importance of crisis responsive strategic decision making and board effectiveness, highlighting how these leadership qualities and governance frameworks contribute towards creating organizational resilience and sustainable environment during the times of uncertainty. Focusing on the first construct, which is Strategic decision making, which is broadly defined as leadership team recognizing crisis signals, making timely decisions to address immediate and unforeseen threats which might deteriorate the financial system of the firm Bouncken et al. (2022). From the agency theory standpoint, managers may sometimes avoid taking bold decisions during crises because of career concerns or to achieve short term incentives, even though these decisions can benefit shareholders (Jensen and Meckling (1976). However, when there are strong and effective agreed incentives, executives are more likely to take decisions which can act in the company's long-term interest. To support this theory, Gualini et al. (2023) highlighted how airlines which took timely and adaptive strategic decisions by adjusting routes and fleets were able to survive compared to those who were resilient to these dynamic strategies. Therefore, from an agency theory point of view, crises responsive decision-making acts as governance function. When incentives are not aligned, managers delay or avoid taking bold actions, increasing bankruptcy risk. However, with strong controlled framework and aligned incentives, this

will enable managers to take decisions proactively, thus translating uncertainty during shock times into resilient strategic actions.

The second construct in this pillar, Board effectiveness is defined as the board's ability to contribute to organizational performance, oversee management decisions, provide strategic guidance and focus on value creation (Palaniappan, 2017; Asahak et al., 2018). From an agency theory standpoint, when large firms are not properly monitored, managers may use their power and market positions to benefit themselves by focusing on short term goals rather than focusing on long term value for the stakeholders. As stated by Jensen and Meckling (1976), when the control and ownership are separated, managers might act for their own benefit if there is no monitoring in place. Likewise, Fama and Jensen (1983), highlights that strong boards and auditing are to be in place to keep managers accountable. To support this theory, study conducted by Sharma and Gupta (2019), argued that the collapse of Kingfisher airline was solely due to failure of no board and governance in place. Likewise, Adams and Mehran (2011) in their research found that strong board governance is directly associated with greater financial stability, highlighting how effective boards can mitigate agency risks. To conclude, board effectiveness acts as a critical governance tool that mitigates agency problems caused by the management by ensuring timely feedback, accountability, therefore protecting airlines from any strategic missteps, strengthening financial stability and lowering the risk of bankruptcy in the airlines.

The third pillar financial resilience focuses on two important constructs debt management and risk management systems which highlight the organization's ability to withstand external shocks and internal financial pressures without falling into insolvency. The first construct, debt management is defined as the creation of strategies and processes to maintain airlines borrowing level under control and to align repayment schedules with

cash inflows (Alsulami, 2025). From a financial distress theory perspective, a firm is considered as financial distressed when operating cash flow is not sufficient to meet the current obligation of the firm (Ikpesu et al., 2020). To support this theory, Ciliberto and Schenone (2012) showed that U.S airlines filing for bankruptcy under chapter 11 have extremely high debt burdens which limited the airlines to react strategically, therefore left with no other option than filing for bankruptcy. Likewise, financial distress theory also highlights how the decrease in profitability and increase in debt has a direct co-correlation with the failure of the firm, insisting on the need for debt management strategies and efficient financial planning (Fakhar et al., 2021). To conclude, debt management is not just a financial practice but a savior mechanism which can reduce the probability of an airline entering bankruptcy.

The last construct within the financial resilience pillar is Risk management systems. Risk management systems are considered as organizational mechanisms which help airlines to safeguard from unpredictable price swings and secure their profitability, particularly from fuel price volatility perspective (Zou, 2024). Viewed from the lens of financial distress theory (Altman and Hotchkiss, 2006), poor risk management systems can quickly convert the short-term liquidity risks into long-term solvency crises (Bakoush et al., 2022). Empirical studies support this view, as Horobet et al. (2022) research states, the increase and unpredictable oil prices have a strong negative impact on airline's stock performance, more than any other external factors. Similarly, Petersson (2012) in their research examine the role of fuel hedging practices like call and swap options which can act as a key risk management strategy to address fuel price volatility. Effective risk management system reduces the uncertainty in cash flows, which is one of the key risk factors emphasized in financial distress theory. Strong debt and risk management systems will create a huge

positive effect of leadership effectiveness and governance practices on insolvency, making sure that the operational and strategic strengths are converted into financial stability.

When examined together, these three pillars act as an interconnected framework to build financial resilience for airlines. The foundation for operational effectiveness and financial stability is provided by internal strategic resources, which enables leadership team to take proactive and crisis responsive actions. Likewise, building strong financial resilience mechanisms transform these capabilities and decisions into long term strategic and adaptable sustainable environment for the airlines, whereas effective leadership and governances guarantee the ethical execution of internal capabilities. This interrelated framework together demonstrates how effective leadership improves the efficiency of internal resources and solid governance improves financial discipline, creating a never-ending cycle which increases organizational resilience and lowers the risk of bankruptcy in the aviation industry.

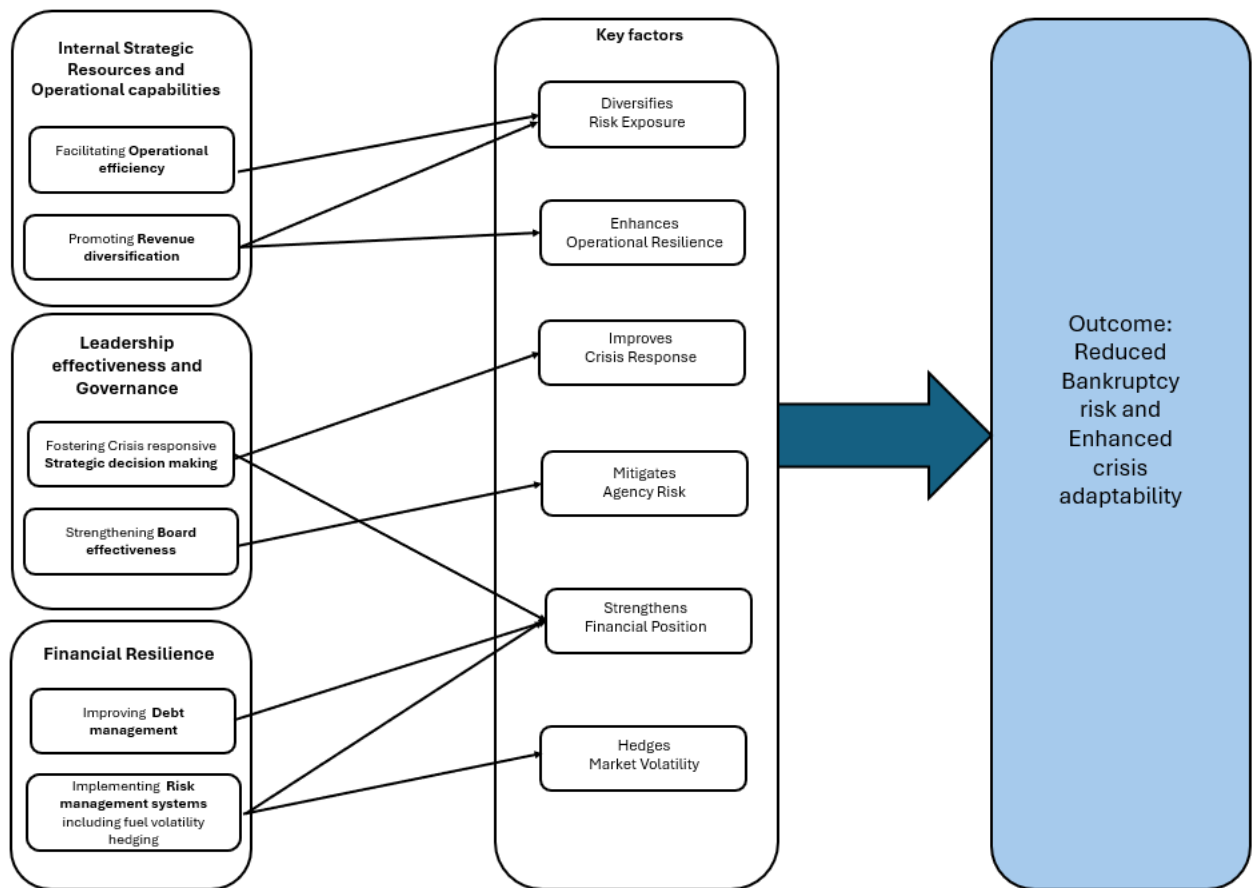


Figure 2: A Conceptual framework of designing strategies to prevent aviation bankruptcy

Source: Following Slack et al. (2010), Paethrangsi (2021), Mumbower et al. (2022), Bouncken et al. (2022), Palaniappan (2017), Asahak et al. (2018), Alsulami (2025) and Zou (2024) , author formed

| <b>Construct</b>                 | <b>Theory</b>                    | <b>Key Reference</b>                          |
|----------------------------------|----------------------------------|-----------------------------------------------|
| <b>Operational Efficiency</b>    | Resource based view theory (RBV) | Slack et al. (2010)                           |
| <b>Revenue Diversification</b>   | Resource based view theory (RBV) | Paethrangsi (2021) and Mumbower et al. (2022) |
| <b>Strategic Decision-Making</b> | Agency theory                    | Bouncken et al. (2002)                        |
| <b>Board Effectiveness</b>       | Agency theory                    | Palaniappan (2017) and Asahak et al. (2018)   |
| <b>Debt Management</b>           | Financial Distress theory        | Alsulami (2025)                               |
| <b>Risk Management Systems</b>   | Financial Distress theory        | Zou (2024)                                    |

Table 2: Mapping of RQ2 constructs with their respective theory and citations,  
author made

This framework was developed to address Research question (RQ2) and was created with extensive analysis of existing case studies, literature reviews and theoretical frameworks. This research provides a structured framework with three pillars which can be used independently based on the needs of the airline. Unlike previous models which focus only on cost reduction, this framework is designed to provide strategies that support adaptation, innovation and stakeholder confidence. Incorporating these strategies will guide airlines to achieve financial structure which can help them withstand any unforeseen epidemics or pandemics in future. The future of the aviation industry lies in customer centric and forward-thinking approaches, while maintaining diversified financial stability during unforeseen circumstances.

## **2.2. Thematic review of Airline Bankruptcy and Financial Resilience**

### **2.2.1. External Economic and Market risks affecting the Airline Industry**

This theme under Literature review addresses Research Question 1 (RQ1) by examining external economic and market risks through the lens of Financial Distress Theory. This further aims to explain the causes and patterns of airline bankruptcy in the U.S. aviation industry. Bankruptcy external factors refer to market conditions which influence the financial performance of the airlines. These include volatility in fuel prices and economic recessions. These two factors significantly impact cost structures, cash flows and risk exposures of an airline which are beyond immediate control of airline managers. Viewed through the lens of Financial Distress Theory, airlines which are unable to absorb such sudden decline in revenue or increase in costs due to external shocks such as reduce in liquidity, face an increased risk of insolvency. Fuel costs are considered as one of the most volatile and impactful components of the airline's operating expenses, by accounting around 31% of total costs as per IATA (2024). While they have not directly pushed airlines towards bankruptcy in isolation, however they serve as a major triggering factor that increases financial risk in financially vulnerable airlines, particularly among carriers with weak financial buffers or high leverage positions.

In the study conducted by Horobet et al. (2022) they investigated the relationship between oil price volatility and airlines stock returns across 25 publicly listed airlines between 2007 and 2020. They also demonstrated that oil price fluctuations have a stronger influence on airline stock performance than any other external variables. Through the lens of financial distress theory perspective, these findings explain how external cost shocks quickly affect how a firm is perceived from market perspective. Even though this study captures a broader industry wide perspective, it primarily focuses on stock market

responses rather than other key factors such as operational or financial performance. Which creates a research gap of how individual airlines' financial strategies can be used to mitigate such volatility, particularly in relation to bankruptcy prevention.

Likewise regional studies further support this view, where the investigation conducted on the Indonesian carriers on route from Medan to Cengkareng revealed that fuel prices were one of the top contributors to cause financial distress (Sirait, 2024). Interview findings with airline financial managers also demonstrated that airlines without advanced fuel hedging strategies faced a 25% to 30% rise in risk of bankruptcy during the high-fuel volatility periods, highlighting the importance of resilient financial strategy. These findings clearly contrast with what Horobet et al. (2022) has covered in their study, which shows market-level effects but does not explain how individual firm deal with the problems. Unlike a broader market level perspective of Horobet et al. (2022), this paper provided a very focused micro level view, highlighting how fuel price changes affect operational performance for few routes, which creates a gap of generalization across wider airline sector.

This view is further supported by Gelirli and Kısacık (2024), where the analysis was performed on Turkish airlines, to understand how oil price fluctuations impact profitability. As a result, it was confirmed that rising oil prices reduced profitability, as fuel costs are the major factor driving operational costs. It was also observed that even though short-term and medium-term profitability were sensitive to fuel shocks, long term stability was maintained by adaptive and flexible fuel hedging strategies. Even though this study provides empirical evidence of fuel related financial pressures, it is focused only on one country and does not provide comparative analysis across carriers.

To summarize, these studies consistently illustrate that fuel price volatility has a very high impact on airline financial outcomes, whether at the industry, national or airline level. However, this literature review highlights a major gap, as there is no comparative analysis performed across diverse airline business models within the U.S aviation industry, particularly to understand whether different strategies such as hedging or diversification influence the impact of oil price volatility on the financial performance and associated bankruptcy risk.

The next external factor which I am going to explore as part of this literature review is Economic recession. The economic recession is one of the most powerful external shocks for airline industry as this triggers rapid financial decline, however the fixed commitments like debt and lease payments remain unchanged. From a Financial Distress Theory perspective, this mismatch between declining revenues and fixed obligations accelerates liquidity stress and insolvency risk. Empirical studies on U.S airlines have shown that during recession times, airlines move very quickly towards financial distress or bankruptcy due to their persistent fixed costs or debts.

Taliah and Zervopoulos (2024) in their study examined airline performance and their resilience during multiple global crises, which included financial crises, natural disasters, pandemics, terrorist attacks and post crisis recovery period. In this study they have used a balanced panel of 80 airlines which included full-service carriers (FSCs), and low-cost carriers (LCCs) between 2008 to 2021, with data from ICAO and Skytrax. The findings highlighted that during the 2008 global financial crisis, U.S full-service airlines suffered major cash flow disruptions with operating revenue declining at 9.35% annual rate. Consequently, LCCs with smaller networks and smaller plane capacities showed greater resilience and quicker recoveries compared to FSC's. This comparison clearly

highlights how different airline business models withstand and are affected by economic shocks. This study further notes that it took carriers approximately 18 months to absorb the crisis and regain the pre-recession operating levels, which states business model choice plays a critical role in navigating economic downturns. Even though empirical evidence on airline efficiency and resilience has been analyzed, this study does not link between decision-making and long-term financial strategies with efficiency outcomes, which remains a major gap.

Additional context was provided by Ismail and Jenatabadi (2014) where their study recognized that airlines operate in highly cyclic environment where macroeconomic fluctuations such as recessions or downturns have a significant impact on financial performance. Empirical analysis across multiple carriers were performed, where the study highlighted that 12 U.S legacy carriers filed for bankruptcy protection during the three-year period between 2005 to 2008, underscoring the vulnerabilities of legacy airlines during the period of economic downturns caused majorly due to operational inefficiencies and fixed cost structure. Along with the study conducted by Taliah and Zervopoulos (2024) shows that recession causes more damage to the firms when they already have internal financial issues and they are not totally driven by external shocks. Both the studies mentioned above, majorly focused on the sector's sensitivity and validated the role of fixed costs and operational inefficiencies being the vital cause behind triggering financial distress.

Now focusing primarily on Covid-19 pandemic which triggered economic recession in the very recent times, Gualini et al. (2023) in their study examined how U.S airlines responded strategically to this unforeseen disruption. Due to covid-19 U.S airlines experienced a loss of \$35 billion in 2020, with a total passenger level dropping by more

than 60% around 368 million in 2020 from 2019 level of 935 million. By using descriptive analysis, this study highlighted the severe financial and operational pressures which airlines faced during the COVID-19 times. This study is mostly descriptive in nature even though they explain how companies' respond to short term crisis. This study further highlights how different airline types used different strategies to build financial resilience. Where few legacy carriers sought capacity reductions and aggressive cost cuts, low-cost carriers on other hand, were able to adopt more flexibility and retain certain routes to capture leisure demand. While this study provided valuable descriptive insights on how airlines addressed Covid-19 by using short term strategies, there remains a major gap of how strategic decisions made during the pandemic can create long term financial resilience.

To support this Suau-Sanchez et al. (2020) studies showed that Covid-19 caused the most significant demand and supply shock in aviation industry, greater than prior disruptions like SARS or 9/11. Their study highlighted the vulnerabilities of the industry like high fixed costs and dependency on international passenger flow and demonstrated how the pandemic led to broader closures, causing collapse in global travel demand. These overlapping pressures and external shocks created liquidity challenges across industry, pushing several airlines with weak balance sheets towards insolvency or bankruptcy protection. However, the study does not explain how airlines can convert crisis-driven adjustments into sustained financial resilience mechanisms. While this study highlighted the impact of Covid-19 on airlines, with major focus on the uncertainties around air freight, ticket prices and consumer demand, the major area which remains unexplored is how airlines can convert these crises driven adjustments into financial strategical transformation.

Rather than documenting industry events, this section synthesizes empirical findings through Financial Distress Theory to explain how external economic and market shocks translate into airline bankruptcy risk. To conclude, the literature review so far provided strong empirical and descriptive evidence stating volatility in fuel prices and economic recessions increase financial and operational pressures on airlines, leading to bankruptcy. While legacy airlines being most vulnerable due to their cost structure and high debt burden, low-cost carriers have demonstrated high financial resilience due to their lean business models. Furthermore, these studies have focused mostly on short-term crises management strategies, which creates a clear gap of how the U.S airlines can convert crises driven strategic adjustments into sustainable long-term strategies to withstand bankruptcy, thereby directly motivating RQ1's focus on identifying the causes and patterns of airline bankruptcy in the U.S aviation industry.

#### **2.2.2. Risks due to weak financial Architecture and Governance-Related Vulnerabilities**

Similar to theme 2.2.1, even this theme focuses on Research Question 1 (RQ1) by assessing how financial leverage and management inefficiencies contribute to airline bankruptcies. Even though external shocks like fuel price volatility and economic recessions cause immediate pressures to the airlines, the literature repeatedly demonstrates that internal vulnerabilities also play a major role in determining whether airlines can withstand or fail under such disruptions. From the standpoint of bankruptcy research, internal causes are crucial as they are under managerial control, and they directly determine the company's course towards survival or insolvency. As identified in the conceptual framework, two key internal constructs that support RQ1 are financial leverage and management inefficiency. When examined together these constructs show distress is caused by both financial structural weakness and poor managerial governance. This section of the literature review will use

financial distress theory to examine financial leverage and Agency theory to examine management inefficiency in systematical manner.

As highlighted in the conceptual framework, financial leverage is one of the primary construct for RQ1, examining the causes of bankruptcy in the U.S aviation industry. Through the lens of financial distress theory, high leverage creates fragility in airline finance, forcing airlines from not servicing their debt's on time. This further reduces liquidity flexibility and pushes airlines towards financial distress when their revenues fall. As the airlines are capital intensive in nature, where fleet acquisition, aircraft leases and infrastructure commitments already create high fixed costs, any additional leverage increases the vulnerability by rapidly depleting cash reserves during recessions.

Several empirical studies have shown, historically, that major U.S airlines have consistently operated with high financial leverage before leading towards bankruptcy. Morell and Swan (2006) highlighted in their study that debt heavy U.S legacy carriers didn't have the capacity to absorb external shocks, pushing them into vulnerable zones during cyclical downturns. Likewise, Pearce (2020) extended this view during the covid-19 crisis, where legacy airlines entered the pandemic with low cash reserves and high leverage. As revenue collapsed, these carriers burned around \$60 billion in Q2 2020 and required extensive government support such as CARES (Coronavirus Aid, Relief, and Economic Security Act) to bail out them. Though the scope of both these studies is different, they both agree that vulnerability increases with pre-existing leverage. While Pearce (2020) emphasizes crisis-specific outcomes with only focus on legacy carriers, Morel and Swan (2006) provides a pre-crisis structural lens. This difference creates a substantial gap of how high leverage impacts the adaptability of U.S. low-cost or hybrid airlines, whose financial structures are very different from those of legacy carriers.

Gritta et al. (2006), who examined the U.S airlines between 1990 to 2003, provided additional support to the prior studies. By breaking down operating, financial and total leverage their research demonstrated that carriers with high debt levels were found extensively vulnerable to revenue shocks, as debt repayment increased the losses during cyclic downturns, thus creating huge pressure on recovery efforts. Furthermore, through the lens of financial distress theory, it is evident that excessive leverage was a primary cause of bankruptcy rather than just an outcome of distress.

This highlights a significant gap in literature which is the majority of financial leverage studies look at general trends in debt exposure without explicitly linking them with different business models, governance frameworks or managerial decision-making. For example, although Low-cost carriers mostly have leaner business models, there is not much empirical research that effectively compares their leverage-related financial patterns with those of legacy carriers that are heavily in debt from the US context. Furthermore, existing studies rarely investigate how financial leverage interacts with other constructs such as management inefficiency, which increases the bankruptcy risk. Addressing these gaps are important to fully understand on how financial leverage contributes to bankruptcy in the U.S aviation industry.

The next construct which is identified as part of RQ1 conceptual framework is Management inefficiency. This is well explained through Agency theory, which highlights how poor governance and misaligned managerial incentives push airlines towards bankruptcy. Agency theory further explains the difference of opinion between managers (agents) and stakeholders (principals). When there are weak governance frameworks or ineffective oversight procedures, managers often prioritize short term goals that serve their interest over the airlines long term sustainability. In the aviation industry, these inefficiencies

are often led by poor acquisitions, excessive expansion, inadequate crisis management and even political interference, all of which weaken the operational and financial resilience.

For example, the study conducted by Ahmed et al. (2020) on Jet airways found that airlines bankruptcy was primarily the outcome of internal mismanagement rather than external factors such as economic recession or volatility in fuel prices. The study further highlighted that the major cause behind this failure was due to weak internal governance and strategic choices such as aggressive expansion and poor acquisition planning which led to severe financial distress, eventually filling for insolvency. Through the lens of agency theory, these actions reflect managerial greed and short-term thinking, where leadership prioritized short term growth and control over sustainability and financial discipline. Similarly, to support this view, Battal and Kiraci (2015) examined the major reasons behind the airline's failure in Turkey and the authors concluded that poor management decisions especially around financial planning and market misjudgment were primary contributors for airline filling for insolvency. Despite different regions, studies conducted by Ahmed et al. (2020) and Battal and Kiraci (2015) emphasized the fact that inadequate internal checks and lack of strategic leadership were the major causes behind the failures of these airlines.

Additionally, a recent study conducted by Balasundharam et al. (2021) on Pacific Island national airlines offer a different dimension, where it was found that political interference and board's lack of independence were the main causes of inefficiency. This is in total contrast of Jet Airways' situation, where the decisions were managed privately. Despite these contextual differences, the underlying logic is consistent with Agency Theory, which is, weak governance allows agents let it be private executives or political actors to pursue strategies that deviate from the airline's long-term survival, leading to insolvency.

Even though these studies provide valuable insights, there are still significant

gaps. Such as very little systematic evidence is available from U.S airlines perspective and the majority of research on management inefficiency is focused on other countries. Moreover, the majority of these studies only look at management inefficiency in isolation, totally ignoring the relationship with excessive financial leverage. However, as Agency theory suggests, governance inefficiency can intensify the impact of structural flaws. For instance, if properly managed, a highly leveraged airline might still be able to survive, but poorly managed airlines with reduced leverage positions might fail because of inadequate management efficiency. To understand why some carriers, fail while others survive, it is essential to look at the relationship between financial leverage and ineffective management.

To summarize, the literature review demonstrates that from all the studies reviewed so far there are two distinct viewpoints which can adequately explain the internal causes of bankruptcy in the aviation industry. According to Financial Distress Theory, financial leverage increases structural vulnerability by limiting flexibility and intensifying liquidity crises during downturns (Morell & Swan, 2006; Gritta et al., 2006; Pearce, 2020). Likewise, Management inefficiency, as explained by Agency Theory, accelerates financial decline through poor governance and misaligned decision making (Ahmed et al., 2020; Battal & Kiraci, 2015; Balasundharam et al., 2021). Though the literature review provides strong support for both the constructs, there are significant gap and inconsistencies which persist.

Even though these studies provide strong evidence by covering different countries like U.S, India, Turkey and Pacific Island, there still needs a detailed analysis which needs to be performed on how governance structure and strategic choices interact with diverse airline business models within the U.S aviation industry. Specifically, there is a lack of comparative research on whether low-cost carriers with leaner financial structures and

simpler governance models provide greater resilience than legacy carriers burdened with high leverage and complex governance frameworks. Addressing this gap is crucial for answering RQ1 (identifying the causes of bankruptcy in U.S. airlines) and to strengthen the conceptual framework that identifies financial leverage and management inefficiency as important internal constructs influencing the outcomes of financial distress, this gap must be filled.

### **2.2.3. Organizational governance and Leadership approaches during crisis times**

Leadership effectiveness and Governance structures are internal critical mechanisms which all airlines should mandatorily follow to be successful in this dynamic environment. Crisis-responsive strategic decision making and, board effectiveness with other key factors determines whether a carrier withstands or collapses during the period of financial distress. Through the lens of Agency theory, it states that strong leadership and governance encourages managers to focus on the firms long term survival than their own short-term benefits. Tron et al. (2023) in their study states that firms with active governance and board involvement help in addressing financial distress positively, unlike other firms with no governance at all. Crisis responsive strategic decision making refers to a firm's ability to make informed decisions which can address both immediate threats and long-term sustainability vision positively, specifically during the periods of crisis or disruptions such as financial distress, pandemics or economic downturns. This can include rapidly shifting from passenger to cargo operations to bring in revenue, suspending unprofitable routes and negotiating labor costs.

As researched by Gualini et al. (2023), Effective leadership strategic decisions taken during crisis can be easily distinguished by the ability to make timely and adaptive strategic decision, as taken by American, Delta and United to address the pandemic. Some

of the key strategies were to reduce non profitable routes, restructure fleets or leave middle seats empty to maintain social distance. This further reflects in a broader debate, where whether maximizing assets or cutting costs deeply will produce long-term outcomes. This study further highlighted how Southwest leadership in the early 2000s found that they maintained over 70% of its domestic routes active, while its competitors, which are other major U.S carriers cut domestic routes by 60 to 65% to stay flexible with cash reserves during unpredictable times. Even though there are multiple examples which have been illustrated on how airlines adopt different strategies to navigate crisis, there is a major limitation of narrow scope, where only the short run of effects of blocking middle seats among U.S airlines were examined. There is no assessment on potential long-term benefits or spillover effects. Thus, further analysis is required to examine how crisis decision making can create financial resilience on a long-term basis.

To support this, a study conducted by Thomas and McNair-Connolly (2017) examined how airlines respond to smoldering crises by adopting capacity cost management strategies, with a focus on two airlines, Southwest and the U.S airways. This paper highlights unlike sudden crises, smoldering crises get built overtime and create substantial pressure on airlines operations and financial structures. The authors emphasized how the strategic decisions which Southwest leadership took during the period of 1990 to early 2000's, where they used their aircraft more often instead of cutting routes, which helped them shine better than U.S airways, who made bigger cuts and ended up in worse financial trouble. However, while this study links strategic decision making with capacity cost decisions, the focus was only on two airlines, Southwest and U.S airways, with the use of archival case analysis, causing weakness on external validation. This creates a gap for further research that integrates operational efficiency with other financial strategies to better understand how

airline resilience can be built.

Extending the discussions to labor related disruptions, Kao et al. (2020) examined how crisis management approaches differ in the services industry compared to those in product based by analyzing airline strikes in Taiwan. Their study highlighted the importance of maintaining brand dimensions such as loyalty and positive relationships with customers, suggesting reputation plays a crucial role which leadership team should also focus on. However, this study remains primarily descriptive in nature with no generalizability beyond labor disputes and does not evaluate how reputational strategies interact with financial and operational decisions. To summarize, the critical gap here is that none of the major studies empirically examine how leadership qualities correlate with financial outcomes, especially among U.S carriers. This study aims to address this gap, by exploring how timely decision making, influenced with recovery mindset contributes to financial resilience in the aviation industry.

The next construct in the literature review concerns the role of board effectiveness in shaping airlines financial resilience during crises. This plays a pivotal role in directing strategic decisions which will enhance financial resilience of the airlines and reduces the risk of bankruptcy. Goyal (2019) in their empirical study examined corporate governance and performance from the Indian aviation industry context. Her study highlighted that board independence, ownership structures, and governance practices are positively associated with financial performance of the airlines. This study further provides valuable evidence stating that governance structures directly influence operational and financial outcomes. However, the scope of the study does not address how governance structures function under extreme volatility or during downturns, where exactly the board effectiveness is validated.

However, to contradict this, Sharma and Gupta (2019) argued that companies with weak to no governance with no board in place, can lead to failed investment and can accumulate excessive debts, eventually leading to financial collapse as seen in Kingfisher airlines. This case study illustrates how weak governance, and no board oversight escalated financial mismanagement, ultimately resulting in bankruptcy. While this study demonstrates the high importance of board effectiveness and failure due to no governance, it does not examine potential corrective governance strategies or board level interventions that could have helped in creating effective financial strategies and mitigating the collapse.

To support this, Kaplan and Nagel (2003) introduced Balanced Scorecard framework, which is a conceptual model where boards can be evaluated not only on financial outcomes but also on strategic alignments and internal processes. This study emphasizes that the balanced scorecard offers a structured mechanism to monitor boards action and ensure accountability beyond financial reporting. However, this study provides only a governance tool, hence lacks empirical validation within the U.S aviation industry.

Even though these studies highlight the importance of boards availability, the findings are not consistent towards all business models. For example, some low-cost airlines operate with lean governance remain financially stable, highlighting that the importance of board might be related to other variables such as managerial decisions or ownership models. Despite these empirical studies, most of the literature is focused on either non-US or legacy carriers, with very limited exploration on how governance practices and experienced board of directors' address crises within the U.S airline sector. Considering these above-mentioned factors, this study aims to investigate this gap by evaluating how influential board members with deep crisis knowledge can help develop financial survival strategies across different U.S airlines. In summary, this section critically synthesizes leadership effectiveness and

board governance as strategic response mechanisms rather than descriptive crisis narratives. By explicitly linking governance and leadership constructs to Agency Theory and RQ2, this study positions crisis-responsive leadership and board effectiveness as central drivers of financial resilience and bankruptcy prevention in the U.S. airline industry.

#### **2.2.4. Effective usage of Internal Resource Capabilities and building Competitive Resilience**

Financial Internal strategic resources play a very important role in determining the airline's financial ability to address and avoid bankruptcy. Through the lenses of Resource based view (RBV), these resources are considered valuable only when they support firms to generate competitive advantage during times of uncertainty. Among these, Operational efficiency and Revenue diversification are often referred to as main factors contributing to the central of resilience. This section of the literature review critically examines these key factors, and how these internal capabilities influence financial outcomes in the aviation industry, especially from the context of bankruptcy and to support recovery.

Operational efficiency is referred to as how effectively an airline utilizes its core resources such as aircraft, crew, fuel, network, and ground operations with only focus to deliver services at the lowest possible cost without any impact to the quality being provided. One of the key internal capabilities which RBV theory states is operational efficiency, this converts tangible assets into cost advantages which competitors may find difficult to replicate. Operational efficiency is the foundational pillar for any airline's long-term sustainability. Studies conducted by Merkert and Hensher (2011) found that airlines with fewer aircraft types achieved higher cost efficiencies and operational reliability compared to other airlines who maintained larger number of aircraft types/families. Using two stage approaches, with a combination of Data Envelopment Analysis (DEA) and random

effects Tobit model, this paper demonstrates that fleet composition and management strategies critically influence the efficiency of operational capabilities. The analysis was performed on 58 airlines across regions on two fiscal years 2007/2008 and 2008/2009. The results highlighted that the operational efficiency is not only influenced by external market conditions, but it is majorly driven by consistent strategic management decisions and effective fleet planning. Even though this study does provide strong empirical evidence where internal resource configurations were linked to efficiency outcomes, the focus was majorly on stable operating conditions and not on crisis environment. This study does not account how external shocks and effective debt management interact with fleet decisions, leaving a gap of understanding how airlines can sustain efficiency under uncertainty.

To support this, Meyer (2020) in their research examines the viability of business model of two long-haul low-cost carriers like Norwegian air shuttle ASA and Eurowings GmbH. This study further examines operational strategies such as cost structures, revenue models and competitive positioning; it further illustrates how low-cost carriers adapt their business model to sustain long haul operations. These findings highlight the challenges which these low-cost airlines face, such as high operating cost, fuel price volatility and demand uncertainty which raises questions to their long-term sustainability. Additionally, this study showed that Eurowings uses a consistent fleet of Airbus A330 aircraft to lower maintenance and training expenses and to enhance cost control during economic downturns. However, the analysis is only focused on two long haul LCC's, Norwegian air shuttle ASA and Eurowings GmbH, with no analysis on financial data due to unavailability, hence cannot be directly generalized to other airlines, especially to U.S aviation industry, which this research will focusing on. Even though these studies discussed so far on operational efficiency construct highlight that fleet uniformity and cost focused business models enhance

operational efficiency and support cost control, these factors alone may not guarantee financial resilience during the crisis.

Additionally, Pereira and Mello (2021), in their study evaluated the efficiency of Brazilian airlines during the covid-19 outbreak. This study highlights that the pandemic has impacted airline efficiency significantly, by causing sharp declines in passenger board and revenue, pushing airlines to cut capacity and develop robust cost structures. Furthermore, their analysis showed that during covid 19 pandemic, airlines with standardized fleets such as Azul and Gol were successful in maintaining increased operational efficiency compared to their peers. This study further suggests that operational efficiency must be combined with flexible cost structures during dynamic downturn scenarios to be effective. However, this study only captures short term improvements in efficiency responses and does not capture how such efficiency gains can create long term financial resilience or help in avoiding bankruptcy. To conclude, as most of these studies remain focused on the Latin American or airlines outside U.S, there remains a clear gap in the literature studies regarding how U.S carriers with different business model manage operational efficiency, particularly where the hub strategies, regulatory frameworks and labor agreements may influence cost structure differently.

The next construct which is going to be explored as part of this literature review is Revenue diversification. Here revenue diversification is referred to as a step towards strategic expansion of an airline's income sources beyond passenger services, for instance, cargo, loyalty programs or maintenance operations. Diversification of revenue increases resilience from an RBV standpoint, by reducing dependency on a single source of income stream and by stabilizing cash flows during demand shocks. To improve financial resilience, Revenue diversification is considered as one of the key strategies in recent times. Airlines

that expanded their operations and service portfolio to include cargo transportation, aircraft maintenance and airport ground services were able to better withstand the crisis by generating alternative revenue streams.

Sengur et al. (2022) in their study highlighted how airlines such as Turkish Airlines, Lufthansa, Emirates and Virgin Atlantic have extended their services beyond passenger services by adopting related diversification strategies such as cargo transportation, maintenance and repair, production of in-flights products, ground handling and in-flight, as well as unrelated diversification strategies including fitness, sports betting, media and hotels. The implementation of these diversified strategies helps reduce dependency on external companies, therefore reducing operational risks and increasing revenue. Even though, this study provides a broader classification of diversification strategies, it does not empirically examine how these strategies influence bankruptcy outcomes or financial distress mitigation.

To challenge these existing studies, in contrast, Suau-Sanchez et al. (2020) in their study argued that unlike previous shocks like SARS, 9/11 or any other global crisis, COVID-19 created the most severe demand and supply shock to the aviation industry, questioning the survival of the industry. This study also highlights the structural vulnerabilities particularly high fixed costs, dependency on international passenger traffic and financial issues which were exposed by the pandemic. Furthermore, according to Suau-Sanchez et al. (2020) airlines should use a mix of strategies to stay afloat in the business. These strategies could include changing flight schedules, getting help from government and diversification of their operations such as expanding cargo operations rather than solely depending only on passenger traffic. However, the long-term efficacy of these diversification strategies across various airline business models remains unexplored.

To support this discussion, Liu et al. (2024) in their systematic review of ancillary

services in the aviation industry, highlighted ancillaries as the core form of revenue diversification. They highlight how airlines such as low-cost carriers generate additional revenue through ancillary services such as baggage fees, seat selection, priority boarding and third-party partnerships (e.g., hotels and insurance). This study further emphasizes that airlines should not be dependent only on passenger traffic as a single form of revenue and should adopt ancillary services into their business models for long term profitability and sustainability. Yet, existing literature places limited emphasis on whether such diversification strategies provide sufficient financial buffers to prevent bankruptcy during prolonged crises.

To summarize, Internal strategic resources and operational capabilities are critical for airlines survival during financial shocks. Key factors such as operational efficiency and revenue diversification help in enhancing cost control, stabilizing cash flows and reducing vulnerability to demand volatility. This study integrates previous empirical findings through the lens of RBV framework and explicitly categorizes these internal capabilities as strategic mechanisms for enhancing financial resilience and preventing bankruptcy among U.S airlines (RQ2).

#### **2.2.5. Importance of Enterprise Risk Management and Long-term financial Resilience**

Financial resilience determines an airline's capacity to withstand and recover from financial shocks or disruptions such as economic downturns, pandemics or operational crises. From the perspective of Financial Distress Theory, resilience is not achieved merely by short-term liquidity support, but through structured risk mitigation mechanisms that stabilize cash flows and protect solvency over time. This section focuses on two constructs, which are debt management and risk management systems with a focus on fuel and market volatility hedging.

Ineffective debt management as a construct has been repeatedly cited in multiple studies as a common predecessor which leads to financial distress. On the one hand debt offers benefits such as lowering their cost of capital by providing interest tax shield and operating leverage, however on the other, it introduces significant risk when mismanaged (Liang, 2023). Financial Distress Theory highlights that when fixed financial obligations exceed a firm's ability to generate operating cash flows, the probability of distress and insolvency increases sharply. As highlighted by Slater et al. (2024), airline sector is highly dependent on and vulnerable to extraneous demand shocks due to its significant fixed commitments from leasing agreements and high level of leverage, which limits both operational and financial adaptability during crisis.

This research employs quantitative statistical methods like One-way analysis of variance (ANOVA) and t-test and is only focused on publicly traded U.S and European carriers with comprehensive dataset spanning between 2017 to 2019. While the findings confirm the structural vulnerability created by leverage, the study does not explore how airlines can proactively manage debt structures to improve long-term resilience. This leaves a significant gap of not using primary data collection methods like semi-structured interviews to analyze how effective debt management can improve airlines financial resilience towards bankruptcy.

Further research was done by Liang (2023), where they examined debt management within the Chinese civil aviation sector, focusing on three major Chinese state-owned carriers, China Southern, Air China and China Eastern during the covid-19 epidemic. This study employs an empirical analysis based on quarterly financial statements between 2017 to 2022 and applies them on multiple debt risk measurement indicators and compare their evolution before and during the pandemic. As an outcome, some of the

recommendations by this study were to revise business and investment strategies, optimizing aircraft introduction, oil hedging and supplier negotiations. Although this study provides practical debt management insights, its findings are limited to state-owned carriers and cannot be directly generalized to the U.S airline industry, where ownership structures and market dynamics differ significantly.

Furthermore, Indabawa and Abdulrahman (2025) in their research, investigated how debt management in Nigeria's domestic airlines creates a financial impact on operational stability due to unstructured external financing and high interest burdens. Conceptual methodology was used with a focus on Kano state, which acts as a major trade center in Nigeria. It is evident that high debt leads to severe interest expenses, liquidity constraints, frequent cash flow issues, flight delays and disruption in airline sustainability. Drawing on their findings, similar to what Liang (2023) has recommended, to create structured practices like debt repayment schedules, balancing debt to equity ratios, shifting towards long-term credit programs, exploring aircraft leases and calling for government intervention like tax relief and robust regulatory frameworks to build financial resilience within the sector. However, the study does not account for differences in capital market access, regulatory frameworks and fleet financing structures present in the U.S aviation industry.

The next construct which I am going to explore as part of this literature review is Risk Management with a major focus on fuel volatility. Risk management is all about preparing for unforeseen events like volatility in fuel cost, sudden changes in market dynamics, and economic or geopolitical shocks. Within Financial Distress Theory, ineffective risk management can rapidly transform short-term cost shocks into long-term solvency crises. Kobbernagel and Tangsgaard (2018) in their research examine how fuel

hedging practices like call and swap options can act as a key risk management strategy to address fuel price volatility. Even though empirical studies confirm the link between risk exposure and hedging strategies, practices might vary based on the airlines and their risk-taking ability.

This study was performed across 18 airlines, with a sample period between 2009–2016. While the findings confirm the effectiveness of hedging instruments, the study does not integrate these practices within a broader enterprise risk management (ERM) framework. These insights suggest that hedging is a crucial, however complex component of airline risk management and further research is required to integrate quantitative exposure metrics with qualitative managerial perspectives, which is an area my study aims to address.

To support this, Allinair (2025) defines a clear step by step fuel hedging strategy which can be incorporated by airlines to address fuel cost volatility. This research defines various hedging strategies like futures, options, swaps, collars and three-way collars used by airlines to mitigate exposure to price fluctuations and sometime a combination of a few strategies based on their risk tolerance and market outlook. While the paper provides comprehensive overview and steps of the process required in developing and implementing successful hedging strategy, it is only descriptive in nature and does not compare how these strategies will affect across airlines or market conditions.

Southwest airline has been quoted in this research for achieving significantly lower fuel cost compared to their competitors based on their successful fuel hedging program. As examined by Kobbernagel and Tangsgaard (2018), even Allinair (2025) agree that fuel hedging is a crucial mechanism for managing financial risk, however further research is needed to assess how integration of hedging practices into enterprise level risk strategies and evaluate its role under different U.S airline business models and market

conditions.

To conclude, while prior research suggests that fuel hedging practices including futures, options, swaps and collars can drastically reduce the risk of fuel price volatility and enhance airline financial viability, further comprehensive investigation is needed. Most of the literature is descriptive or cross-sectional studies comparing airlines, but without accounting for organizational and airline specific differences that might impact the effectiveness of hedging. More importantly, risk management systems are rarely examined as integrated enterprise-level mechanisms aligned with governance, leadership decision-making and debt management strategies. This leaves a critical gap in understanding how risk management systems, when embedded within broader financial and strategic frameworks, contribute to long-term resilience and bankruptcy prevention in the U.S aviation industry. Addressing this gap directly supports RQ2 by examining how enterprise risk management systems can be operationalized to build sustained financial resilience.

### **2.3. Summary**

The aviation industry stands out as one of the most fragile and financially sensitive distressed sectors driven by both internal and external factors. Since the airline deregulation act of 1978, more than 200 U.S airlines have filed for bankruptcy. Guided through the three major theoretical lenses, Resource based view (RBV), Financial Distress Theory, and Agency Theory, the aim of the study is to identify both the causes of financial decline in the aviation industry (RQ1) and to build strategic frameworks that can help mitigate bankruptcy risks (RQ2).

The four major constructs which drive airline towards bankruptcies are Fuel price volatility, economic recession, debt burdens and poor management decisions. As stated by IATA around 31% of airline operating expense comprises of fuel cost, which has

a direct impact on airline profitability. High debt burden, when combined with economic recession, which reduces passenger demand whereas fixed costs such as aircraft leases and labor remain unchanged, airlines face severe liquidity pressure as highlighted by financial distress theory. High debt burden further increases the impact of these vulnerabilities, which creates issues with flexibility and prevents airlines from implementing timely mitigating strategies during critical times. Furthermore, through the lens of agency theory, issues arise when managers prioritize short-term expansion or pricing strategies over long-term stability which will benefit stakeholders. Together these external and internal factors create a multi-layer list of causes which explains how internal weakness when combined by external shocks can collectively push airlines towards bankruptcy.

Likewise, existing literature highlights how poor debt management and weak risk management strategies can accelerate insolvency. Even though debt provides benefits such as tax shields and leverage, mismanagement of the debt creates cash flow and liquidity problems increasing the interest burdens. As covered in the literature review, studies from China, Nigeria, and the United States highlight the need for structured debt strategies, which includes scheduled repayment, balanced debt-to-equity, long-term financing strategy, and government support mechanisms. Furthermore, risk management systems, particularly fuel price hedging, can be used as a critical tool to stabilize cash flows and to protect against sudden market volatility. Empirical research further confirms that futures, options, swaps, collars, and mixed strategies can reduce financial shocks. However, many existing studies are mostly descriptive in nature or doesn't account the organizational differences or the holistic view of how hedging strategies will work on enterprise level. These gaps point to the necessity of designing holistic resilience systems in U.S. aviation that go beyond narrow financial instruments.

To address these financial challenges, this study develops a theory informed conceptual framework which can guide airlines from preventing financial distress. This framework is built based on three pillars, which are internal strategic resources, leadership effectiveness and governance, and financial resilience. The first pillar focuses on operational efficiency and revenue diversification as strategic internal capabilities viewed through RBV lens. The second pillar highlights agency theory driven constructs which are strategic decision making and board effectiveness. The third pillar focuses on building financially resilient airlines emphasizing debt management and risk management systems.

To conclude, the literature review demonstrates that airline bankruptcies are not only triggered due to financial mismanagement, however it is an outcome of complex multifaceted internal vulnerabilities and external shocks. This study aims to bridge critical gaps in both theory and practical world by combining external factors (Fuel volatility, economic recession), internal factors (debt burden, managerial decisions) embedded with strategic responses which are driven by three pillar framework. Ultimately, long-term stability in the aviation industry is dependent on multiple factors and to survive, airlines must adopt a balanced approach to achieve financial stability.

The following chapter of this research outlines Methodology, which focuses on the tools and principles used to gather qualitative data. This section further highlights how different sampling methods like purposive and snowball techniques are used to build data for RQ1 (case study analysis) and RQ2 (semi-structured interviews). It further discusses how external, internal and construct validity are ensured throughout this research. Likewise, methodology section highlights how ethical standards are followed, which is considered as the foundation of this research.

## CHAPTER III: METHODOLOGY

### 3.1. Overview of the Research Problem

Bankruptcy of airlines in the United States has occurred multiple times in the past few decades. This has occurred due to a combination of both internal and external factors. The documentary analysis showed a clear pattern highlighting the factors influencing the airlines towards bankruptcy which are financial leverage, management inefficiency, and high-cost structures. These factors have significantly contributed to the airline's financial instability. At the same time, external factors such as economic recessions and fuel price volatility have created further challenges for airlines which are already in financial distress.

From case analysis perspective, it was evident that airline bankruptcy is not triggered due to single isolated factors, but they are a cumulative result of various factors interacting overtime. Airlines such as American Airlines, Delta Air Lines, United Airlines, Republic Airways, and Ravn Air showed a consistent pattern of internal weakness combined with external shocks which accelerated their financial weakness. Along with these factors, competitive pressure became another important triggering factor. Aggressive pricing and presence of low-cost carriers made things even worse, which further reduced revenue margins and increased financial strain on other airlines.

Even though existing literature has identified several causes due to which airlines have faced financial distress, still there remains a gap in understanding how these factors interact with each other and how airlines can effectively navigate and respond to these challenges through strategic measures. There was a clear gap identified which is between figuring out the causes of bankruptcy and linking them with practical strategies to build financial resilience. Therefore, this study has focused on identifying the causes of airline bankruptcy (RQ1) and developing strategies which can help airlines prevent financial

distress (RQ2), thereby providing a detailed understanding of the issues and their possible solutions.

### **3.2. Operationalization of Theoretical Constructs**

The aim of the Operationalization of theoretical construct was to clearly link the conceptual framework developed in chapter 2 with the empirical analysis conducted in this research. Each construct identified from both RQ1 and RQ2 was developed based on qualitative evidence derived from either document analysis (RQ1) and semi-structured interviews (RQ2). This approach was taken to make sure that the theoretical concepts were not investigated in isolation but were rather thoroughly applied in analyzing real world airline data points.

For RQ1, which aimed to identify the causes and patterns across airlines bankruptcies, constructs such as financial leverage, management inefficiency, and external economic shocks were operationalized through data identified from document analysis. To start with financial leverage was identified through indicators such as high debt levels, increased financial obligations, and liquidity constraints. Likewise, Management inefficiency was operationalized through delayed decision-making, unable to implement corrective actions, and causing inefficiencies in operational areas which were further reflected in cost structures and performance outcomes.

External factors such as fuel price volatility and economic recessions were operationalized by analyzing how they affected airlines' performances in different cases. These constructs were identified through industry level data, financial reports and documented evidence showing variations in operating costs and demand trends. It was clear that these external factors played an important role especially when the airlines were already having trouble managing their financial and operational areas.

Additionally, to these predefined constructs, competitive pressure emerged as an inductive construct from document analysis. This was operationalized through indicators such as aggressive pricing, discounted fares, and increased competition due to entrance of low-cost carriers. Furthermore, this was identified through consistent references from multiple case studies, in which revenue margins were reduced due to increased market competition. From a cross-case analysis perspective, each of these constructs were analyzed and occurred across multiple airlines, therefore concluded as recurring patterns with multiple interactions. This has enabled the study to go beyond isolation and develop a comprehensive understanding of how different factors together contributed to financial distress.

For RQ2, which focuses on developing strategies to prevent financial distress, themes which emerged from semi-structured interviews were operational efficiency, revenue diversification, strategic decision-making, board effectiveness, debt management, and risk management systems. Each construct was identified based on the patterns and responses repeated by the participants during the semi-structured interviews. Operational efficiency was identified through indicators such as cost control, process optimization, and effectively utilizing the resources. Revenue diversification was identified through discussion points such as multiple revenue streams, which included ancillary services and cargo operations. The ability of leadership to make timely decisions, take corrective actions, and to make sure proper governance mechanisms are in place, showed that strategic decision-making and board effectiveness were present.

Debt management was operationalized through practices related to maintaining optimal debt levels, managing financial obligations, and ensuring liquidity. Risk management systems were identified through the presence of forecasting mechanisms, scenario planning, fuel hedging, and early warning indicators. These constructs were

highlighted by almost all participants as critical strategies which were utilized for managing unforeseen circumstances and in preventing financial distress.

In addition to these 6 predefined constructs, digital capabilities and system integration was an important inductive theme which emerged during the interview. This construct was operationalized through analytics, user of integrated systems, analytics, AI-driven tools, and real-time data visibility across the organization. Participants also highlighted that the airline's digital maturity plays an important role in taking faster decisions and improving the overall performance.

Both deductive coding and inductive coding approaches were combinedly used to operationalize these constructs more effectively and precisely. Deductive coding was applied based on the constructs which were identified from literature review and conceptual framework, likewise, inductive coding was applied to build 2 additional themes which emerged from documents analysis and semi-structured interviews. NVivo software was used, where a structured approach was followed for organizing and coding both document-based analysis and interview data.

To summarize, there was a strong linkage maintained between theory and empirical analysis while operationalizing the theoretical constructs in this study. A clear pattern was evident in both predefined and inductive constructs, highlighting the important roles these factors play in explaining financial distress and resilience. This structured approach has supported this study to systematically analyze the complex intersections between these multiple factors, which has provided a clear and in-depth understanding of both the causes of bankruptcy and the strategies which are required to prevent financial distress.

### 3.3. Research Purpose and Questions

The purpose of the study as highlighted in chapter 1, was to identify and investigate the underlying causes and patterns which are recurring which pushes U.S airlines towards financial distress and bankruptcy between 2000 and 2022. The study investigated the impact of external economic disruptions, internal managerial decisions, financial structures, and strategic capabilities on airline financial distress and recovery through the lenses of Financial Distress Theory, Agency Theory, and Resource-Based View (RBV).

From the RQ1 perspective, this study determined the collective impact of economic and operational vulnerabilities, governance and leadership dynamics, and financial architecture on airline bankruptcy risks through document-based case study analysis. Likewise, by addressing RQ2, it explored internal strategic capabilities, leadership mechanisms, and financial management practices through semi-structured interviews with aviation industry professionals.

In addition, the study developed practical and theory-driven strategies which airlines can adopt to overcome both internal and external challenges, with strategies examined through key constructs such as operational efficiency, revenue diversification, strategic decision-making, board effectiveness, debt management, and risk management systems, including fuel volatility hedging.

The two research questions which this study has focused on are as follows:

**RQ1:** How do internal managerial decisions and external economic disruptions collectively influence financial distress and bankruptcy risk among U.S. airlines, as examined through the lenses of Financial Distress Theory and Agency Theory?

**RQ2:** What internal strategic capabilities, leadership mechanisms, and financial management practices enable U.S. airlines to prevent financial distress and build long-term

resilience, as guided by the Resource-Based View (RBV), Agency Theory, and Financial Distress Theory?

### **3.4. Research Design**

This study adopted qualitative research design to address both RQ1 and RQ2, with each question being addressed with different methodological and philosophical orientations. For RQ1, the study followed qualitative case study approach grounded by realist/constructivist orientation. This paradigm was suitable for RQ1 because, the aim here was to identify the patterns behind airline bankruptcies by using publicly available documents such as financial reports, bankruptcy filings and press releases. This indicated the real events which have taken place rather than subjective personal experiences. Documentary evidence was commonly used as a primary qualitative data source, and it was well supported by prior research which highlights that documents provide stable, non-reactive records of decisions taken and organizational events (Bowen, 2009)

Likewise, for RQ2, this study adopted interpretivist paradigm, and this was appropriate because, this research question relied on gathering data via semi-structured interviews and with a goal to understand how aviation professionals interpreted the financial, operational and leadership challenges within their own work environment. The interpretivist paradigm helped in recognizing that the outcome of these interviews was purely shaped by the participants' experience and perspectives. Furthermore, semi-structured interviews were clearly aligned with interpretivist research, where they allowed participants articulate their own thinking and interpretations and does offered flexibility wherever required to explore context specific insights (DeJonckheere and Vaughn, 2019).

### **3.5. Population and Sample**

For Research Question 1 (RQ1), the focus was to assess multiple cases of defunct airlines in the United States from the time-period between 2000 to 2022, through document based qualitative analysis. Multiple case study methodology was appropriate as it allows for in-depth and multifaceted exploration within real-life contexts (Crowe et al., 2011). Likewise, it provides the added advantage of identifying patterns across cases while recognizing unique characteristics of each case (Stake, 2006), which was appropriate in the case of RQ1. The main sources for this analysis were financial reports, press releases, internal memos, analytical reports and bankruptcy filings. Even though these reports and documents would provide only an indirect view, this case selection criteria still provided a detailed view of how various departments such as senior managers, analysts and regulators responded to internal and external challenges during the decline.

This study used a purposive sampling strategy to select cases which could provide rich, in-depth and relevant insights into airline bankruptcies. Three inclusion criteria were considered while selecting these case studies for RQ1. Firstly, the focus was only on the U.S based airlines that have officially filed for bankruptcy between 2000 to 2022. This timeframe was finalized as it captures two decades of industry dynamics, covering major external shocks such as the 9/11 attacks, the 2008 global financial crisis, and the COVID-19 pandemic, which made it highly relevant for analyzing bankruptcy patterns. As stated by Yin (2003), for multiple case study scenario's, the recommendation was to stick between 2 to 10 cases to manage the depth and to build stronger base for analytical generalization. As part of this research the target was to analyze the number of

rich cases somewhere between 3 to 5 airlines, selected based on their relevance and diversity to identify the underlying complexity behind bankruptcy.

Second, there had to be sufficient availability of public documentation like filing, press releases, financial reports. This criterion was added to ensure transparency and reliability of analysis, as the availability of verifiable documents strengthens the validity of findings. Third, there was diversity in airline size and business model, covering legacy carriers, low-cost carriers and regional carriers. This was important to capture the heterogeneity of the U.S. airline industry and to allow comparisons across different business models.

Likewise, the exclusion criteria applied to all the airlines that ceased operations for reasons not related to bankruptcy, for instance, mergers, acquisitions without filing for bankruptcy and those cases with insufficient publicly available data for meaningful detailed analysis. These exclusion criteria were identified to avoid cases which might distort the results, ensuring only genuine bankruptcy-related cases were examined. Even though this study of RQ1 did not include direct interviews, document-based analysis exploration helped in identifying how different professional groups from senior managers to analysts experienced and responded to financial instability. These insights built a robust foundation of key factors causing bankruptcies, which in turn supported Research Question 2 (RQ2), which mainly focused on developing effective strategies to prevent bankruptcies in the future.

For RQ2, this study used semi-structured interviews with aviation professionals who had direct experience in financial, operational, strategic, or governance roles. The goal here was to understand the strategies and organizational practices that would help airlines prevent or manage financial distress. Semi-structured interviews were used as a primary

research method to collect data for RQ2. As stated by McLeod et al. (2011), semi-structured interviews were common techniques used during case study research.

In this study, an aviation professional was defined as an individual who meets at least one of the following criteria. The participant had to have a minimum of 6S years of professional experience in an airline or aviation-related organization. He or she should have held a managerial, senior management, or executive role (for example: Finance Manager, Fleet Planning Manager, Strategy Manager, Director/VP of Operations, Group Treasurer, Chief Commercial Officer, or equivalent). Additionally, individuals were considered if they had direct professional experience in financial restructuring, risk management, turnaround projects, route economics, cost management, or corporate governance. Likewise, recognized aviation consultant, analyst, or regulator with industry knowledge covering airline financial and operational performance were also be considered.

A purposive sampling strategy was used to make sure that the participants had relevant expertise linked to the constructs in the conceptual framework from RQ2 (RBV, Agency Theory, and Financial Distress Theory). To ensure variation and broader transferability, participants were selected across different airline types (legacy, low-cost, regional), functions (finance, operations, strategy, risk management, governance), levels of seniority (mid-management, senior management, executives, consultants) and mix of individuals from historically distressed airlines and stable airlines. Furthermore, to reach professionals who were not easily accessible through formal channels such as retired executives or employees of bankrupt airlines, snowball sampling approach was also used.

The target here was to achieve 15–20 interviews, which aligns with qualitative research involving expert groups, whereas saturation commonly occurred somewhere around 12–15 interviews (Guest et al., 2006). Data collection continued until no new

themes or codes emerged across three consecutive interviews, indicating saturation.

Saturation was monitored throughout the data collection process. Data collection stopped when no new codes or themes emerged across three consecutive interviews. If saturation occurred earlier, the final number may be lower, and if more variation was needed, interviews will be continued up to the maximum of 20.

The sampling frame was developed using LinkedIn role filters (finance, operations, strategy, leadership in airlines), professional aviation networks, industry groups (e.g., IATA, airline associations) and personal contacts and referrals. The outcome of the interviews was directly relevant to real-world scenarios and provided meaningful insights into leadership styles, operational and financial factors which contributed to the financial distress of airlines. Furthermore, the input from these experts helped in developing conceptual financial frameworks on leadership effectiveness and governance, managing internal strategic resources and operational capabilities effectively, and building financially resilient airlines. To summarize, this approach helped me develop turnaround strategies which could be used by policy makers and industry leaders to prevent airlines from bankruptcy.

### **3.6 Cases and Participation Selection**

For RQ1, case studies were shortlisted based on purposive sampling approach. This ensured that the selected airlines provided rich and in-depth insights backed with enough data publicly available to understand the causes of bankruptcy. The focus was to select a maximum of 5 airlines which were originated from the United States and had experienced either financial distress or filed for bankruptcy under Chapter 11. Shortlisting these cases has provided relevant and detailed information to analyze the key contributing factors for bankruptcy. Based on the shortlisting criteria, the 5 airlines which were

shortlisted were American airlines, Delta airlines, Ravn airways, Republic airways and United airlines. Furthermore, purposive sampling approach has allowed the study to focus on information rich cases, which has helped in identifying the recurring patterns across different airlines rather than large no of cases.

For RQ2, participants were selected by using purposive sampling and snowball sampling techniques. The selection focused on aviation professionals with relevant experience in aviation industry, including airline veterans, executives, consultants and aviation researchers who have direct exposure to operational, financial or strategic aspects of the airlines industry. Purposive sampling was used to identify participants who had detailed knowledge about the aviation industry operating around different functions. Additionally, snowball sampling was used to reach out to other relevant experts through referrals from initially identified participants. This method helped in reaching out to participants who were not directly accessible but had good industry experience. A total of 17 participants were selected from which semi-structured interview was conducted with 15 of them successfully based on their availability, last-minute dropouts and to maintain a diverse range of perspective.

### **3.7 Instrumentation**

The primary instrument which was used for data collection in this study was semi-structured interview guide. The interview guide consisted of 8 primary open-ended questions designed to capture detailed information related to the key constructs identified in RQ2 which include operational efficiency, revenue diversification, strategic decision-making, board effectiveness, debt management and risk management systems. This approach was taken to capture participants' real-life experiences specific to aviation industry. The interview guide was developed based on the conceptual framework and

findings from the literature review to make sure they align with the research objectives. Each question was designed to explore specific areas and themes related to financial resilience and the strategies which airlines managers had adopted to manage financial distress. Additionally, on top of these 8 questions, there were probing questions after each response and a final question where the interviewee was requested to share insights or areas of improvement on top of these 8 questions.

The semi structured interview provided flexibility during the interviews, allowing me to discuss further and helped in asking follow-up questions wherever required. This semi structure process further helped in understanding participants' real life experiences and responses deeper, likewise this helped in capturing insights which would not have been captured from structured interviews. Overall, to conclude, the use of a semi-structured interview guide ensured that the data collection process remained both focused and adaptable, supporting the overall objective of the study.

### **3.8 Data Collection Procedures**

Qualitative case study approach was adopted for RQ1, with primary method of data collection was focused on multiple case study analysis of the U.S based airlines who have experienced financial distress or bankruptcy. Case study analysis relies entirely on secondary data sources rather than surveys or interviews. The aim of RQ1 was to gather insights from authentic, credible and verifiable data sources such as academic journal articles, company annual reports, press releases, government or industry reports, reputable media articles, publicly available interviews and speeches, archival documents, regulatory filings (e.g., SEC filings), and conference proceedings or white papers. As stated by (Yin R.K, 2003), secondary data acts as a critical source for case study analysis as they are precise, stable and help in covering long span of time. These data sources

ensured that the real-world information was captured correctly, covering both internal decisions and external pressures that pushed these airlines during financial distress.

A clear search strategy was followed in this research using academic databases (e.g. Google scholar, Research gate, JSTOR), industry archives, government portals (e.g. U.S. DOT, FAA, NTSB), company websites, and reputable media and business databases (e.g. Factiva, Bloomberg, ProQuest Newsstand). Selection criteria of these secondary cases were based on relevance (airline bankruptcy cases specific to the U.S aviation industry), credibility (peer-reviewed or industry recognized publications), timeframe (covering events between 2000 to 2022), authenticity (original documents from trusted sources) and data richness (sufficient strategic, financial and operational detail). I also set boundaries regarding language, with only focus on English and defined the methodological scope to include both empirical and theoretical contributions.

To ensure consistency, predefined keywords were applied across all databases and archives. Example search terms include: “airline bankruptcy”, “aviation financial resilience”, “airline corporate governance”, “U.S. airlines crisis management”, “operational efficiency in airlines”, “airline revenue diversification”, and “low-cost carriers’ financial strategy”. Boolean operators (AND, OR) were used to refine results, for instance, “airline bankruptcy AND U.S.” or “revenue diversification OR ancillary revenue”. Some of the major factors which drove the shortlisting of cases are volatility in fuel prices, high debt burdens, management decisions and economic recessions, together with variation in airline size and business models. This study-based approach helped in identifying and developing traceable patterns across multiple cases without needing direct access to people involved to address RQ1.

Semi-structured interviews were used as a primary research method to collect data for RQ2. The interviews were guided by 8 open-ended questions linked to the research question, focusing on areas such as operational efficiency, strategic decision making, revenue diversification, and debt management. Interviews were conducted either in person or virtually, recorded with consent, transcribed, and anonymized to ensure confidentiality. This approach allowed for depth and flexibility, enabling participants to provide detailed insights from their practical experience in the aviation industry. The 8 research questions in RQ2 are focused on identifying and developing strategies which can be used by airlines to address bankruptcy. Unlike RQ1, which focuses on identifying the causes and financial problems due to which airlines get pushed to financial distress, RQ2 is used to develop financial strategies that can help airlines avoid those problems in the first place.

The 8 research questions in RQ2 are focused on identifying and developing strategies which can be used by airlines to address bankruptcy. Unlike RQ1, which focuses on identifying the causes and financial problems due to which airlines get pushed to financial distress, RQ2 is used to develop financial strategies that can help airlines avoid those problems in the first place. As part of RQ2, the research was focused on analyzing real life examples of airlines that faced bankruptcy, however they managed to recover successfully. The aim of this study was to build real world strategies through practical lessons, by analyzing how financially stressed airlines changed their strategies by adopting new financial tools and leadership styles.

| <b>Interview Question</b>                                                                                                                                                         | <b>Relevance (Linked to constructs)</b>                                       | <b>Linked to LR Theme(s)</b>                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>From your experience, which internal capabilities or operational strengths helped airlines remain stable during periods of disruption?</b>                                     | Operational Efficiency (RBV)                                                  | 3.4 Effective usage of Internal Resource Capabilities and building Competitive Resilience                                                         |
| <b>How have leadership decisions or governance practices influenced your airline's ability to manage or worsen financial distress?</b>                                            | Strategic Decision-Making (Agency Theory) Board Effectiveness (Agency Theory) | 3.3 Organizational governance and Leadership approaches during crisis times                                                                       |
| <b>Which financial practices or debt-related decisions (e.g., repayment strategy, leverage adjustments, liquidity protection) have been most critical in preventing distress?</b> | Debt Management (Financial distress theory)                                   | 3.2 Risks due to weak financial Architecture and Governance related vulnerabilities                                                               |
| <b>Based on your experience, what early signals or financial indicators suggest that an airline is entering financial distress?</b>                                               | Debt Management (Financial distress theory)                                   | 3.1 Economic and Market risks affecting the Airline Industry, 3.2 Risks due to weak financial Architecture and Governance related vulnerabilities |

|                                                                                                                                                  |                                                                               |                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Which revenue diversification strategies (cargo, ancillaries, loyalty programs) have meaningfully improved financial resilience?</b>          | Revenue Diversification (RBV)                                                 | 3.4 Importance of Enterprise Risk Management and Long-term financial Resilience                                                                                        |
| <b>How effective are enterprise risk-management practices such as fuel hedging, scenario planning, or forecasting in reducing risk exposure?</b> | Risk Management Systems (Financial distress theory)                           | 3.5 Importance of Enterprise Risk Management and Long-term financial Resilience                                                                                        |
| <b>What organizational or governance barriers prevent airlines from implementing resilience or turnaround strategies?</b>                        | Strategic Decision-Making (Agency theory) Board Effectiveness (Agency theory) | 3.3 Organizational governance and Leadership approaches during crisis times, 3.4 Effective usage of Internal Resource Capabilities and building Competitive Resilience |
| <b>How can technologies such as analytics or AI support better forecasting and early detection of risks in airlines?</b>                         | Risk Management Systems (Financial distress theory)                           | 3.1 Economic and Market risks affecting the Airline Industry, 3.5 Importance of Enterprise Risk Management and Long-term financial Resilience                          |

Table 3: Alignment of interview questions with conceptual constructs and LR themes for data collection – RQ2

Source: Author made

Interviews were conducted until thematic saturation was reached, which was expected after approximately 12 interviews, although a minimum of 15-20 participants were initially targeted to ensure a broader perspective across departments, organizational levels, and airline types. A total of 15 interviews were conducted in this study. The outcome of the interviews was directly relevant to real-world scenarios and provided meaningful insights into leadership styles, operational and financial factors, and supported the development of conceptual frameworks for leadership effectiveness, governance, resource management, and financial resilience. This approach helped build turnaround strategies that could be applied by policy makers and industry leaders to prevent airlines from bankruptcy.

### **3.9. Data Analysis**

For RQ1, thematic analysis was used to study each shortlisted airline bankruptcy case with a clear link presented in Chapter 2, Literature review. Thematic analysis was very suitable in examining complex, real world scenarios like bankruptcy, which is a multi-layered complex phenomenon. This approach was helpful in identifying both straightforward and hidden patterns from qualitative data. According to Nowell et al. (2017), thematic analysis involves identifying, analyzing and reporting themes from qualitative data such as interviews and document analysis. Additionally, this study focused both on inductive approaches, which allowed me to build themes from the gathered qualitative data and deductive approaches, in which I explored to work with predefined themes.

This study adopted the 6-step process which Nowell et al. (2017) referred to in their research. These steps are reading and understanding the data carefully, creating

codes, developing themes, reviewing and refining data. To start with I will begin with analyzing the documents of the case study to develop a detailed understanding of the events which led the airline towards bankruptcy. This was the first step of the analysis which helped me to get familiar with the gathered data and to identify early observations. In the next step, of creating codes, I systematically reviewed the content and highlighted recurring ideas, phrases, events which had contributed to airlines bankruptcy. This included cash flow management, aggressive pricing, strategic planning, debt level, operational efficiency etc.

Once basic codes were generated, I grouped related codes together to identify patterns and to develop themes. This step helped in identifying connections across different codes and cases, for instance, grouping, cash flow management, debt level and cost control under 'Internal financial practices' sub-theme. As the analysis progressed, I carefully reviewed the developed themes against the entire collected case studies and performed refinement of these themes if required to avoid any misinterpretations. The aim here was not just to identify the themes and label them on what went wrong, instead, it was to identify how multiple factors and patterns pushed an airline towards the decline. NVivo qualitative software was shortlisted to manage and organize the data effectively. As compared with other Computer Assisted Qualitative Data Analysis Software (CAQDAS), NVivo has premium features to support character-based coding, rich text capabilities and highly compatible to diverse research designs (Zamawe, 2015), making it a perfect fit for thematic analysis employed in this study.

As in qualitative analysis, the process of data collection and data analysis might occur in parallel (Creswell, 2007). Having this mindset helped me stay open to new ideas, while I worked on building the themes. One of the valuable insights from

Ahmed et al. (2023) is thematic analysis not only about organizing the data based on the themes or sub codes, but rather it is about interpreting the data correctly. With reference to RQ1, which aims to identify the causes behind the bankruptcy in the U.S aviation industry, this framework and mindset was important while dealing with sensitive topics like the reason behind the financial collapse, where not only companies, but people and governments are impacted.

Christou (2022) did highlight that the thematic analysis is a perfect framework to explore topics that have not been studied before. In this research for RQ1, the aim was not just to identify the relationships between financial figures and the causes of bankruptcy, but also to identify how poor leadership styles, external factors and economic cycles contributed to financial distress. To conclude, thematic analysis helped in turning the identified thick case study data from the qualitative analysis into the right themes and sub-codes. Furthermore, thematic analysis provided tools and frameworks to understand the in-depth reason behind airline bankruptcies and presented them in a way which added value in both academic and practical contexts. As this study progressed with a within case analysis, cross case analysis was conducted to compare the cases and identify common patterns and differences across different airlines business models. The outcome of the data analysis provided a clear understanding of bankruptcy patterns, which further supported in developing the strategy for RQ2.

For RQ2, thematic analysis was used to examine the semi-structured interview data with a clear link presented in Chapter 2, Literature review. With reference to RQ2, thematic analysis was very suitable in examining complex, real world scenarios like bankruptcy, which is a multi-layered complex phenomenon. This approach was helpful in identifying both straightforward and hidden patterns from qualitative data. As

referred by Nowell et al. (2017), thematic analysis involves identifying, analyzing and reporting themes from qualitative data such as interviews and document analysis.

Additionally, I focused on both inductive approaches, which allowed me to build themes from the gathered semi structured interviews and with deductive approaches, in which I explored to start with predefined themes and theories.

I adopted the 6-step process which Nowell et al. (2017) referred to in their research. These steps are reading and understanding the data carefully, creating codes, developing themes, reviewing and refining data. To start with the process began with familiarization with the semi structured interview transcripts to develop a detailed understanding of the experiences and strategies shared by the participants. This was the first step of the analysis which helped me to get familiar with the gathered data and to identify early observations. In the next step, of creating codes, I systematically reviewed the content and highlighted recurring ideas, phrases, events related to airline financial distress and recovery strategies which were shared by the interviewees. This included financial restructuring, resilience strategies, strategic planning, effective decision making etc.

Once basic codes were generated, I grouped related codes together to identify patterns and to develop themes. This step helped in identifying connections across different codes and participants, for instance, grouping, financial restructuring and cost control under 'Internal financial practices' sub-theme. As the analysis progressed, I carefully reviewed the developed themes against the entire set of interview data and performed refinement of these themes if required to avoid any misinterpretations. The aim here was not only to identify the themes and label them on what strategies were

adopted, instead, it is to identify how different strategies based on the airline's circumstances influenced the need to avoid bankruptcy.

To manage and organize the data effectively, I used NVivo qualitative data analysis software to store transcripts, code data and track theme development. NVivo software acted as a backbone of this research, particularly for RQ2, which focuses on identifying strategies to prevent financial distress in the airline industry. NVivo software supports analyzing large volumes of qualitative data like interview outcomes and case studies by identifying sub-themes and support data visualization (Mortelmans, 2025). This software helped in exploring the relationship between financial restructuring strategies and leadership decision making can handle market dynamics. All research related data were stored in one project for easy future reference (Mortelmans, 2025).

As in qualitative analysis, the process of data collection and data analysis might occur in parallel (Creswell, 2007). Having this mindset helped me stay open to new ideas, while I worked on building the themes. One of the valuable insights from Ahmed et al. (2025) is, thematic analysis is not only about organizing the data based on the themes or sub codes, but rather it is about interpreting the data correctly. With reference to RQ2, which aims to build financial strategies to address bankruptcy in the U.S aviation industry, this framework and mindset was important to build strategies which could be used.

Christou (2022) did highlight that the thematic analysis is a perfect framework to explore topics that have not been studied before. As an outcome of this research for RQ2, the aim was to build strategies focused on Internal Strategic Resources and Operational capabilities, Leadership effectiveness and Governance and Financial resilience to avoid bankruptcies in U.S aviation industry. To strengthen the rigor, themes

were iteratively reviewed and shared with the participants for member checking and to confirm the accuracy of the interpretations. To conclude, thematic analysis helped in turning the stories, experiences and perspectives from the qualitative data into the right themes and sub-codes. Furthermore, thematic analysis provided tools and frameworks to understand the in-depth reason behind airline bankruptcies and presented them in a way which added value in both academic and practical contexts.

### **3.10. Research Design Limitations**

Even though the study explores the reason behind multi-faced causes of airlines bankruptcies within the United States aviation industry and the goal is to provide strategies which can be used to address the financial distressed airlines, however, there are couple of limitations which can be directly influence these findings. These limitations include the geographical focus, the methodology adopted and the scope of data collection.

#### **3.10.1. Geographic Focus and Generalization**

The most important limitation of this study is its restricted geographical scope, as my research analyzes exclusively the history behind bankrupted airlines within the United States. Even though this study helps me to focus on the U.S as a specific country and its regulatory frameworks, however the findings cannot be directly generalized to other countries or regions without some contextual amendments. There can be various reasons behind these limitations, like different legal frameworks being followed in different regions of the world, market maturity, regulatory frameworks and their infrastructure.

Global aviation markets are governed by a wide range of regulatory bodies, like the International Civil Aviation Organization (ICAO), International Air Transport Association (IATA), Directorate General of Civil Aviation (DGCA) and national aviation authorities like the Federal Aviation Administration (FAA) in the U.S, which can

influence the decision behind bankruptcies. For example, in emerging markets like India, Vietnam and Philippines, aviation industry can be highly influenced by currency instability and availability of capital expenditure. Similarly, the market conditions in European Union or Latin America can differ compared to the United States (Hill et al., 2008). These differences can result in distinct strategic approaches and restructuring mechanisms than can be applied only in the United States.

Furthermore, as the study is U.S centric, the conceptual framework which has been built from the outcome of this study can be applied directly only to the U.S aviation industry. Due to the highly competitive airline market, with a mix of legacy carriers like Delta, American and low-cost carriers like the Southwest and Spirit (Borenstein, 1992) in the United States, this limits the transferability of the findings to countries with less competitive in nature, more state-controlled and with less strict regulatory frameworks. To mitigate the risk of generalizability, this study explicitly acknowledges the contextual limitations and further recommends that future research should be focused on comparative, cross-border approach. This would help in validating and improving the adaptation of the proposed framework in different regions, therefore improving the broader applicability. Furthermore, triangulating semi-structured interview data with bankruptcy case studies will act as a mitigation strategy against biased or incomplete primary data, making the conclusions more reliable.

### **3.10.2. Data Collection and Participant Bias**

This study employs qualitative methods to gather insights to understand the causes behind the bankruptcies and aims to develop conceptual framework which can be used to address the financial distressed airlines. Case study analysis is used for RQ1 to explore bankruptcy causes within the U.S aviation industry and a semi-structured qualitative

method is used to gather insightful information from industry experts. This methodology is adopted to provide a collection of rich and in-depth analysis for complex problems like bankruptcy. With semi-structured interviews, this study has captured insider perspectives from the interviewee's which are not directly available via quantitative methods. Even though qualitative data gathering offers all the above-mentioned benefits, it has its own limitations like participant's bias and issues with generalizability.

Another major concern on qualitative data collection is the participant selection methods which are used in this research. For RQ2, Purposeful sampling and snowball sampling methods are used here for selecting participants in the semi-structured interviews, which can intentionally or unintentionally introduce selection bias, lack of diversity and create heavy network dependency. For example, government regulators and independent industry analysts are not part of the interview cohorts which could give me valuable and contrasting insights on top of what I will be receiving from my regular cohorts. The focus on aviation experts will limit a 360-degree view of major causes behind bankruptcy process. As Patton (2002) highlights, the perspectives of these experts may be developed by their professional roles, which could introduce bias into their responses. This could also cause skewness towards one direction based on the participation selection bias.

On top of the concerns which have been mentioned above around participant bias, the semi-structured interview format has its own challenges, like inconsistency across interviews based on the participant knowledge on a particular theme. This can have a direct impact on identifying appropriate themes and sub-codes. For instance, the Senior leader of an airline might heavily rely on adaptations and transformation themes, whereas a Finance executive might focus on adopting internal financial practices and pricing strategies. This difference in opinion can cause a bottleneck in drawing conclusions from the qualitative data

gathered from semi-structured interviews. To conclude, qualitative data gathering has its own benefits of understanding the depth of the topic from interviewee's perspective and background, however they may not accurately help to develop all patterns which can fit different airline types, market segments or regions within United States.

### **3.10.3. Methodological Gaps and Lack of Quantitative Data**

One major limitation of this study is the exclusive usage of qualitative methods. Even though qualitative methods play a vital role in understanding the causes behind a complex multi-faced situation such as bankruptcy, as Creswell and Crewell (2017) stated, they do not offer the ability to detect measurable patterns, trends and or statistical correlations. In comparison, quantitative methods offer greater accuracy, objectivity and generalizability (Zyoud et al., 2024). They allow researchers to assess correlations between variables and test the statistical relevance using hypothesis driven analysis. For example, quantitative methods could have enabled identification of correlations between the key variables such as fuel prices, economic recession, increase in debt, management decisions and the likelihood of bankruptcy. Absence of quantitative methods limits the outcome of this study from generalizing findings or providing predictive insights.

To mitigate this limitation, triangulation is used to support by combining qualitative findings from semi-structured interviews with case study analysis of past bankruptcy cases. This will provide a more in-depth understanding of bankruptcies, despite the unavailability of quantitative analysis. Furthermore, clear documentation of themes and sub-codes will improve traceability for this research. As the primary objective of this study is to identify the causes behind airline bankruptcy and to develop strategic responses through conceptual frameworks, qualitative methods are the most suitable ones. Quantitative methods are more suitable only when the researchers want to quantify relationships between

variables, test hypothesis or make predictions based on numerical data (Zyoud et al., 2024). In this scenario, the depth and details provided by qualitative methods provides a foundation to achieve the study's goals.

#### **3.10.4. Temporal Limitations and Lack of Latest Available Data**

Another major limitation of my study is the extensive usage of case studies as a major source to analyze and identify the patterns of airline bankruptcies in the United States. Even though this approach is helpful in identifying the long-term patterns and provides an in-depth cause behind the airline failures, this might not capture the latest trends or emerging industry dynamics within the aviation industry. For instance, airline bankruptcies previously were often driven due to legacy cost structures, price wars or labor disputes, however in today's world there might be modern challenges such as digital transformation, change in customer behavior and post pandemic market shifts.

As part of aviation 4.0, technology developments in big data analytics, cloud computing, digitalization, Internet of things and simulations (Zafar and Khan, 2024), could majorly influence future bankruptcy cases. Another major transition was the rise of low-cost carriers and dynamic pricing which have altered the operating model of airlines (Sengupta and Wiggins, 2006), i.e., the factors leading to past failures may majorly differ from those that occur in future. To address this gap, this study analyses the causes behind the airlines which have filed for bankruptcy due to pandemic covid-19, like Ravn airways, as this offers valuable insights into external shocks like the decline in travel demand due to global travel restrictions, forced mass grounding of aircraft and risk related to public health. These post pandemic examples will help my study by bridging the gaps between historical patterns and the latest industry conditions.

Even though there are these limitations as mentioned above, the study has

provided a clearer understanding of recurring bankruptcy patterns and the common themes due to which airlines file for bankruptcy. Moreover, this study has provided practical relevance for distressed airlines by proposing strategic responses with a major focus on exploration of turnover approaches like mergers, alliances and network restructuring. While the conclusion of this study can be more relevant to airlines in the United States, and less generalizable to other regions or sectors, this study acts as a foundation of any future research, which could adopt, up to-date data, international perspective and post pandemic developments.

### **3.11. Conclusion**

This study adopted qualitative approach with two distinct methodological orientations to identify the causes of airlines bankruptcies (RQ1) and to develop strategies which can help prevent financial distress in the U.S aviation industry (RQ2). For RQ1, qualitative multiple case study approach grounded in realist/constructivist orientation was employed to analyze and identify the patterns of defunct U.S airlines between 2000 to 2022, with major focus on publicly available sources such as financial reports, press releases and bankruptcy filings using document based qualitative analysis. Similarly, for RQ2, an interpretive approach using semi-structured interviews were conducted with 15 aviation professionals to gather detailed information on strategic, operational and financial practices which will strengthen resilience across different airline types and functional roles.

Thematic analysis was adopted throughout this study with focus on both deductive codes linked to the constructs and inductive themes emerging from the data. NVivo software was used to develop themes and to identify underlying patterns from both document analysis (RQ1) and outcome of semi-structured interviews (RQ2) by maintaining systematic coding, audit trails, and coding memos. Trustworthiness for

RQ1 was fully ensured through triangulation and cross case consistency as well as member checking. For RQ2, codebook transparency and audit trails were used along with reflexive documentation to minimize researcher bias and enhance confirmability. Likewise, ethical procedures such as informed consent, anonymization and secure data handling were followed throughout the study to make sure that the integrity of this research was maintained. To protect the participants consent was treated as an ongoing process rather than a one-time activity. While agreeing with the limitation of generalizability which qualitative analysis brings in, this approach provided an in-depth understanding of the challenges which airlines in the U.S aviation industry are facing and helped in developing financial and operational strategies to mitigate bankruptcy.

## CHAPTER IV: RESULTS

### 4.1. Research Question One

#### 4.1.1. Introduction to Research Question One

In this chapter, the discussion will be on the empirical findings to address the Research question (RQ1), which is What are the key factors and recurring trends that have contributed to airline bankruptcies in the United States aviation industry. These findings are an outcome derived from document based qualitative analysis performed on multiple case studies on five U.S based airlines, which are, American airlines, Delta airlines, Ravn airways, Republic airways and United airlines. The aim of this study was to be consistent with realist/constructivist paradigm, which is to rely solely on secondary data sources, which include bankruptcy filings, financial reports, press releases, regulatory documents and other reputable industry and media releases.

The aim of this chapter is to describe and report what has been found by going through the reports and documents which are available publicly than interpreting them or proposing any solutions. The outcome of RQ1 is organized around four deductive constructs which were derived from conceptual framework from chapter 2. The four constructs are fuel price volatility, economic recession, financial leverage, and management inefficiency. In addition to this, based on the document analysis across different cases, competitive pressure was identified as an inductive theme which was repetitive in most cases. Additionally, to this, a cross case perspective was also adopted to identify recurring patterns in different airlines with diversified business models, which includes, full service carriers, regional carriers, public and privately listed airlines.

## **4.1.2. Findings based on constructs**

### **4.1.2.1. Fuel Price volatility**

Across the overall files which were reviewed for 5 airlines, fuel price volatility was commonly highlighted in 42 references across 26 files and was considered as a recurring external factor impacting airline's financial structure. It was evident through document analysis that high, rising and unstable fuel prices were causing major operational challenges to airlines. As highlighted in literature review, fuel prices comprise of 31% of airlines operational costs, this document analysis added further weightage to the same by highlighting the impact this causes on airlines operations. Historical documentation further highlighted that increase in oil prices directly impacts the prices of jet fuel prices over time. For example, it was highlighted that increase in oil prices during certain periods has increased fuel costs rapidly in a shorter timeframe. Which directly contributed to increasing the operating expenses for airlines which are already running within tight financial margins.

Documentary evidence across cases further suggests that fuel cost increase creates immense pressure on airline liquidity and their operational sustainability. Financial disclosure further indicated that aviation fuel prices are mostly influenced by economic, political and market conditions, which are totally not in airline's control. Due to which, increase in fuel prices was frequently mentioned in the document analysis as contributing factor affecting airline profitability and financial health. To conclude, the findings also indicated that fuel price volatility alone didn't independently contribute to airline's bankruptcy outcome. Instead, the impact was visible when combined with other structural vulnerabilities which will be highlighted in upcoming chapters.

#### 4.1.2.2. Economic Recession

Economic recession was the second most common factor which was considered to influence airlines across multiple cases which were analyzed. It was very evident through the documentary analysis that there were several macro-economic factors which have negatively impacted airline demand and revenue streams. Among all of them, some of the most prominent events where the terrorists attack of September 11, 2001, the global financial crisis that began at the end of 2007/2008 and covid 19. The document analysis clearly suggested that after each macro-economic recession, there was a significant decline in travel demand among the aviation industry.

| <b>Airline</b>           | <b>Type of Shock<br/>(from Evidence)</b>                              | <b>Evidence from Document Analysis</b>                                                                                                                                                                |
|--------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>United Airlines</b>   | Post-September 2001 industry crisis                                   | “Since the tragic events of September 11, 2001, triggered decline in revenues”; “reduction in business travel”; “25% drop in airline industry volume”; “lost \$4 billion due to slumping economy”     |
| <b>Delta Air Lines</b>   | Post-September 2001 industry crisis                                   | “post-September 2001 industry crisis”; “substantial losses from operations”; “reduction in domestic industry unit revenue”                                                                            |
| <b>American Airlines</b> | Global economic uncertainty / Great Recession 2008                    | “Global economic uncertainty and resulting revenue instability”; “Great Recession occurred in 2008”; “Great Recession that began in late 2007”; “record lows in passenger travel... reduced revenues” |
| <b>Ravn Air</b>          | COVID-related demand collapse                                         | “80–90% decrease in passenger revenue”; “unprecedented drop in passenger traffic”; “significant negative cash flow situation”                                                                         |
| <b>Republic Airways</b>  | Operational / resource constraint (pilot-shortage, grounded aircraft) | “Loss of revenue due to grounding aircraft”; “lack of pilot resources”; “unable to honor flying obligations”; “decline in liquidity and cash flow”                                                    |

Table 4: Mapping of Airlines with their shock triggers and evidence from document analysis, author made

The above table clearly indicates what were the causes behind bankruptcy filings for these 5 airlines. Documentary evidence indicates that post September 2001 terrorist attack, most airlines face major financial and operational challenges within the airline industry, as documented in the United Airlines cases. It was also evident that decline in revenues and reduction in business travel were the major causes for United bankruptcy filings. Likewise, similar patterns were observed with Delta airlines too, where the sources highlighted that post September 2001, there was a major reduction in unit revenue and caused major operational losses. Similarly, the great recession which took place in 2008, reflected in the case of American airlines, where the evidence highlighted that due to economic recession, there was revenue instability and reduced passenger travel.

A clear pattern was evident across the analyzed documents, which is during the period of economic disruptions, reduced revenue and financial pressures were consistently observed across all airlines. Likewise, extreme sudden external shocks further reinforced this pattern with Ravn Air, where documentary analysis clearly indicated that due to Covid-19 cross border restriction and wide spread of viruses, caused a decrease of approx. 80 – 90 % passenger revenue due to drop in passenger traffic. Which created a major negative cash flow situation. In contrast Republic air was not majorly influenced due to economic recession, however to pilot shortages, grounded aircraft and reduced liquidity. To conclude, from the document analysis, it is evident that economic recession and external shocks are the primary triggering mechanisms that expose underlying financial and structural vulnerabilities of airlines, leading to bankruptcies.

#### **4.1.2.3. Financial Leverage**

The document analysis clearly indicates that financial leverage was one of the major factors contributing to bankruptcy filings across the five airlines, with occurring

around 57 files with 128 references. This analysis further indicated that most airlines who filed for bankruptcy operated in significantly high levels of financial obligations, which include long term debt, lease commitments and other financial liabilities. This situation was very much evident in the case of American airlines, where the sources highlighted that American had consolidated liability of approximately \$29.6 billion, along with funded debt, airport obligations, municipalities and trade creditors. It was also very much evident that American airlines were not able to effectively restructure its debt and cost structure compared to its competitors, which further increased the financial burden on the airline.

Likewise similar patterns were observed in DeltaAir lines, where document analysis highlighted that total debt of airlines increased overtime, along with financial losses, which pushed airline towards bankruptcy filing. Similarly with United Airlines, the evidence indicated that the leverage levels were increasing significantly, causing increase in debt ratio, with debt maturity of approx. \$875 million, creating additional financial pressure before filing for bankruptcy. Likewise in the case of Republic airways, the long-term debt doubled to approx. \$2.46 billion, along with increasing other liabilities and financial arrangements. Court filings also showed that both assets and liabilities together were up to \$10 billion, indicating the overall financial commitment of the airline. In the case of Ravn air, evidence indicated that outstanding debt obligations were approx. \$90million, with most assets being pledged to other parties, highlighting the critical financial position of the airlines.

This document analysis indicated a clear pattern among all airlines which filed for bankruptcies, which are high level of debt, increasing liabilities, and significant financial obligations. The evidence further indicated that as the financial commitment of the airlines increased, they started facing pressure with meeting their obligations,

particularly due to ongoing losses and limited liquidity. To conclude, from the document analysis, it is very clear that increased financial leverage and debt obligations played a critical role in impacting the financial position of the airlines, therefore pushing airlines towards bankruptcies.

#### **4.1.2.4. Management Inefficiency**

The document analysis clearly highlights that Management Inefficiency was one of the key internal factors which was contributing to bankruptcy across the five airlines. This also further suggests that in many cases, management decisions were ineffective in getting the financial and operational challenges addressed during timely manner. This was evident especially in the case of American where documents and sources highlighted, it avoided filing for bankruptcy, where their competitor went through bankruptcy and emerged stronger with restructured costs, debt and improved balanced sheets. Similar patterns were noticed in Delta airlines too, where the document analysis underscored that there was a need for significant labor cost reductions, renegotiation of contracts, and financial restructuring.

In the case of United Airlines, it was evident that the airline operated with one of the highest cost structures in the industry, due to restrictive work rules and high labor costs, which ended up creating additional operational and financial strain. Likewise, in the case of Republic airways, some of the causes of airline failure were persistent labor negotiations, pilot shortages, and airlines inability to meet operational obligations on time. Furthermore, Republic also faced issues with not able to resolve contractual issues and was unable to adapt to changing workforce conditions. For Ravn air, evidence highlighted that the airlines were in significant need of funding, which ended up with major layoffs, clearly indicating the severity of their financial and operational situation.

A clear pattern emerged across all five airlines by showing how management inefficiency resulted in high-cost structure, delayed restructuring decisions and operational challenges. Further evidence suggests that the failure of management to implement timely corrective actions, which include cost restructuring, labor negotiations, and operational adjustments, which directly contributed in deteriorating financial condition of airlines. To conclude, the document analysis for RQ1 clearly demonstrates that management inefficiency plays a critical role in pushing airlines towards bankruptcy, particularly with delayed decision making and inability to control costs.

#### **4.1.2.5. Competitive pressure**

Competitive pressure is one of the key inductive factors which arised from the document analysis for RQ1, contributing to bankruptcy across five airlines. This analysis further indicates that airline industry operates in a very highly competitive environment with intense price competition and continuous pressure to compete effectively in the market. This was very much evident in the case of American airlines, where the sources highlighted that the competitive challenges which the airlines faced, substantial cost disadvantage compared to the competitors and the need to achieve competitive cost structure. It was also very evident that the low-cost carriers were expanding significantly across major routes and were offering lower prices, which again created more pressure on legacy airlines.

Likewise, similar patterns were observed where documentary evidence highlighted that new airlines entered the market with very low-ticket prices, in some cases as low as \$29, which increased price competition. This situation further pushed airlines to match these lower fares due to losing customers to competitors, which further reduced revenues. In addition, the evidence highlighted that competition in the airline industry is

intense, with fare discounting and continuous pressure to retain market share.

A clear pattern was evident across the analyzed documents, which is that increasing competition, price wars, and the presence of low-cost carriers were consistently observed across the airline industry. Further evidence indicates that competitors who underwent Chapter 11 restructuring were able to reduce costs and improve their financial position, which created additional competitive pressure on other airlines. To conclude, from the document analysis, it is very clear that competitive pressure, particularly in terms of price competition and cost disadvantages, played a significant role in weakening the financial position of airlines, thereby contributing to bankruptcy.

#### **4.1.3. Cross case pattern analysis**

Beyond individual constructs analysis, cross cases pattern analysis was performed on the documents gathered for the five shortlisted airlines. This analysis revealed the recurring interactions between these identified deductive and inductive constructs. To start with financial leverage, management inefficiency, and competitive pressures were simultaneously present in most cases, which further intensified the financial challenges which airlines were already facing. High levels of debt and financial obligations reduced the financial flexibility of airlines, while at the same time, operational inefficiencies and delays in decision-making limited the ability of management to respond effectively to changing market conditions.

Likewise, competitive pressure was very much evident across the cases where airlines were required to operate with cost structures comparable to their competitors, particularly those who had already undergone restructuring. This created additional financial pressure, especially for airlines which were already operating with high-cost structures and increasing liabilities. Additionally, document analysis clearly indicated that

external factors such as economic recession and fuel price volatility further caused more stress to their internal weakness. During periods of economic downturn, there was a significant decline in passenger demand and revenue instability, while rising fuel costs increased operational expenses. These external shocks had a more severe impact on airlines which were already financially constrained.

| <b>Airline Case</b> | <b>Fuel</b> | <b>Recession</b> | <b>Leverage</b> | <b>Management</b> | <b>Competition</b> |
|---------------------|-------------|------------------|-----------------|-------------------|--------------------|
| <b>American</b>     | ✓           | ✓                | ✓               | ✓                 | ✓                  |
| <b>Delta</b>        | ✓           | ✓                | ✓               | ✓                 | ✓                  |
| <b>United</b>       | ✓           | ✓                | ✓               | ✓                 | ✓                  |
| <b>Republic</b>     | ✓           | ✓                | ✓               | ✓                 | ✓                  |
| <b>Ravn</b>         | ✓           | ✓                | ✓               | ✓                 | (weak)             |

Table 5: Cross-Case Summary of Key Bankruptcy Factors Across Airlines, author made

The above table clearly highlights that all the constructs were evident across most cases, however, identifying which factors were the primary drivers of bankruptcy was critical to understand. To conclude, a clear pattern was evident post document analysis that airline bankruptcies were not caused by one single factor, however they are an outcome of combined effect of financial leverage, management inefficiency, competitive pressure and external economic conditions, which together contributed to the deterioration of financial structure of the airlines.

## **4.2. Research Question Two**

### **4.2.1. Introduction to Research Question Two**

The aim of Research question 2 is to identify and build conceptually strong strategies incorporating governance practices, internal capabilities and management mindset which will drive airlines towards mitigating financial distress and enhancing their resilience.

This question was addressed through semi-structured interviews with 8 questions. Interviewees were from different domains, backgrounds and carried expertise which was critical for this research question.

#### **4.2.2. Participant Recruitment and Sampling Strategy**

A total of 17 participants were contacted via purposive and snowfall sampling methods for the semi-structured interview. As part of this research, interviewees were contacted through LinkedIn forms, WhatsApp groups and emails too. Selection criteria included that the interviewees are aviation experts, who have a minimum of 5 years of experience, worked in either LCC, FSC or Service providers and have either been involved or directly worked during crisis management. Of 17 participants, I was successful in conducting and closing interviews with 15 participants, however, 2 participants revoked their interest in their interview even after providing a signed consent form. Even with 15 participants as saturation of codes were reached, no more interviews were conducted. This approach ensured that the depth of the experiment has been successfully achieved.



**Rahaman Sheriff**  • You  
Principal Product Manager | 14+ years in Travel | Doctorate Scholar | MBA | P...  
1mo • 

...

I'm currently conducting doctoral research (DBA) on strategies to prevent financial distress in the U.S. aviation industry.  
I'm seeking aviation leaders and industry experts for a short interview of max 45 mins to share their insights.  
Participation is voluntary and responses will remain anonymous.  
If you're available, please do fill out this form:  
<https://lnkd.in/dv9DVkzQ>

[#DBA](#) [#AviationResearch](#) [#AirlineStrategy](#) [#Leadership](#) [#SSBM](#) [#Doctorate](#)



**Contact information**  
docs.google.com

 You and 13 others

3 comments

Reactions



+6

Figure 3: Screen shot of LinkedIn post for semi-structured interview

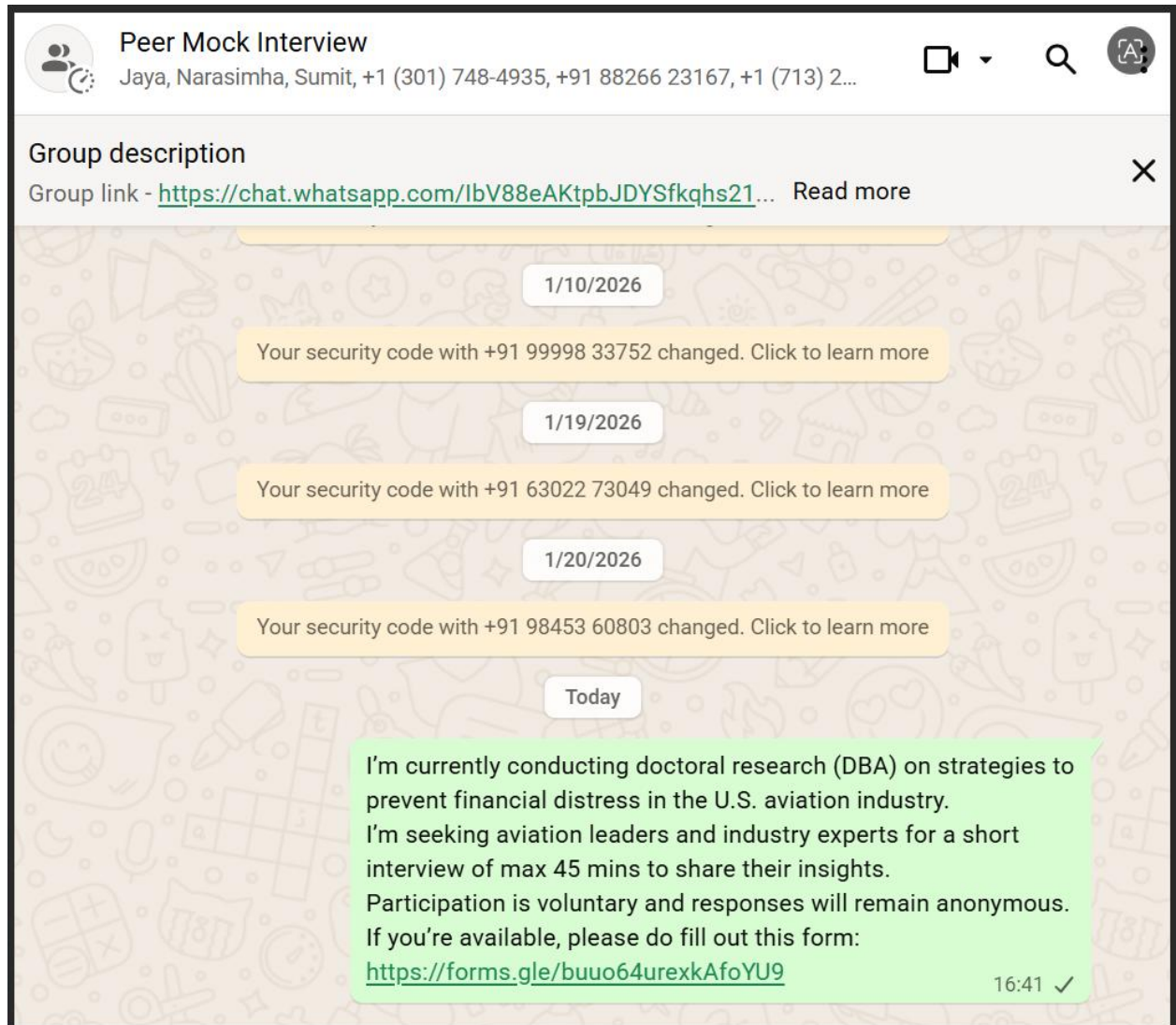


Figure 4: Screen shot of WhatsApp group for interview

#### 4.2.3. Ethical Safeguards and Confidentiality Procedures

All participants were provided with consent form which clearly indicated that the interviewee details will be anonymized and they have the right to withdraw from the interview anytime during the interview or post interview. Participating in the interview was solely interviewee's decision and a signed consent form was gathered and stored safely in my local drive. Interview discussions were solely through emails, and all meetings were scheduled through Webex and recorded accordingly.

#### **4.2.4. Interview Design, Transcription and Data preparation**

Interview contained 8 open-ended questions which were presented to the participants during the interview. Each question was read out loud during the interview and feedback was captured in xl, simultaneously, interview was recorded such that transcript can be prepared. Recorded interviews were uploaded in word document to convert them into English transcripts. Interviews ranged from 25 to 45 minutes. Core themes which were identified as part of these interviews were, Operational efficiency, Revenue diversification, Strategic decision-making, Board effectiveness, Debt management, Risk management systems and Digital capability and system integration.

#### **4.2.5. Coding and Analytical Procedures for RQ2**

##### **4.2.5.1. Deductive Coding**

The first stage of analysis involved deductive coding of the interview transcripts. Deductive coding is referred to as using the predefined codes derived from the conceptual framework and from the existing literature review of Chapter 3. Based on the conceptual framework of this study, six constructs were coded as initial coding nodes in the NVivo software. This approach enabled me to organize the interview data in a structured way and making sure that the analysis remained aligned with the theoretical foundations. These six constructs are Operational efficiency, Revenue diversification, Strategic decision-making, Board effectiveness, Debt management, and Risk management systems.

As next step, each interview transcript was reviewed carefully, and relevant statements were coded under these predefined nodes. This process allowed me to identify and quote how the industry experts describe the strategic, managerial and operational practices which can help airlines mitigate the financial distress and improve organizational performance during challenging times. Using deductive approach has helped me in

organizing the interview responses systematically with relation to the conceptual framework from chapter 3.

#### **4.2.5.2. Inductive Coding**

Additionally, on top of deductive codes, the coding process also included inductive coding. With regards to Inductive coding, any new codes which emerge directly from the interview data during the analysis process will be added for further analysis. As the interview transcripts were reviewed, certain themes and patterns emerged, however there was one common theme which most of the interviewees shared in their interview, which is Digital capabilities and systems integration. This inductive approach allowed me to capture insights from the interview participants which covered live experiences and professional perspectives, which was not covered in the deductive coding. The inclusion of inductive coding has been beneficial from the perspective of being flexible for any new themes which emerge from the data, rather than restricting only to the predefined theoretical constructs.

By combining both deductive and inductive coding, this study has maintained a balance between theory driven analysis and data driven analysis. This approach has strengthened the qualitative analysis which was performed on the interview data by remaining focused on themes developed from conceptual framework for RQ2 and parallelly capturing new themes which emerge from the semi-structured interviews.

#### **4.2.6. Deductive and Inductive themes from Interview Data**

This section covers in detail the results captured as part of the semi-structured interview with 15 participants. Each theme will quote and emphasize the findings from the transcripts and will highlight the recommendations. To maintain confidentiality, no personal data will be used here in this section.

#### **4.2.6.1. Operational Efficiency**

Operational efficiency has emerged as one of the major themes from the interview data. This theme was highlighted by almost all participants, empathizing with how important optimized operational process is to support and maintain financial resilience within the airlines. This study further suggests that cross co-ordination between different departments such as flight operations, ground handling and customer services plays a vital role in improving airline performance. Participants further highlighted that by improving operational efficiency, will directly impact airlines positively by reducing unnecessary operational costs whereas the service quality and operational stability will be well maintained.

Handful of interviewees mentioned the importance of building a culture of ownership within the organization. This further indicated that when employees at different levels take responsibility for operational outcomes, airlines become immune to better respond to operational challenges more quickly. For example, one of the interview responses highlighted that the organization should ‘encourage ownership even at a lower level’, due to which employees develop a ‘personal connect’ with the airline and take ownership of operational performance.

Another important aspect which emerged from the interview was the need to balance cost control whereas the service quality is well maintained. Interview responses suggested that cost reduction initiatives should mostly focus on areas which don’t negatively impact customer experience. For example, one response explained, that ‘customer satisfaction should be high’, and the cost reduction efforts should solely focus on area’s ‘not directly impacting customer satisfaction’. Likewise, another interviewee highlighted the importance of maintaining ‘fast turnaround time’ and by making sure that the ‘recovery rate

should be quick’.

These are some of the operational responsive strategies described for minimizing delays and maintaining reliable airline operations by the participants. To summarize, operational efficiency in airlines involves a combination of cost discipline, employee ownership, maintaining good service quality and building adequate operational responsiveness. These practices together help in building stronger operational performance and will support airlines with developing long-term financial resilience.

#### **4.2.6.2. Revenue Diversification**

Revenue diversification was another major theme which emerged from the interview data. Responses from the participants indicated that in the current dynamics of business, airlines do recognize the risk of associating with only single revenue stream, which is passenger ticket revenue. Diversification of revenue was highlighted as an important strategy for improving financial stability and for reducing vulnerabilities during unforeseen external shocks which can affect passenger demand.

Couple of interview responses suggested that the airlines are majorly focusing on alternative revenue streams to maintain and support long term sustainability. Some of the key areas were expanding ancillary services like baggage fees, seat selection, priority boarding, in-flight services and investing in cargo operations. One participant explained, that ‘ancillary services help to improve the revenue’ whereas another participant added a comment stating ‘a large portion of airline revenue is now generated by ancillary services’.

Another major diversified option which was mentioned frequently was ‘Cargo operations’. One participant highlighted that ‘cargo operations act as a critical cash-stabilizing factor’, while another participant highlighted that cargo services became a major revenue contributor during unprecedented times such as covid 19, where passenger travel

demand was majorly impacted. Loyalty programs were another important revenue diversification mechanism which was highlighted by handful of participants. Participants explained that properly structured frequent flyer programs help airlines to build customer loyalty and to generate additional funds. One participant stated that loyalty programs ‘helps airlines raise funds’ whereas another participant mentioned that loyalty program initiatives can increase customer lifetime value.

Additionally, on top of these three major contributors, other revenue diversification strategies which were highlighted by participants were partnerships with hotels, insurance companies, and car rental companies. These multiple collaborations will help airlines bundle these offers with seats to generate additional revenues. One participant described how airlines ‘sell hotels, rental cars, and travel services with tickets’ therefore expanding the revenue generating opportunities on top of core airline product. To summarize, participants consistently highlighted the importance of having diversified revenue generating streams, which will play a crucial role in building financial resilience and reducing dependency on only ticket revenues.

#### **4.2.6.3. Strategic decision Making**

Strategic decision making was another major theme which emerged from the discussions with the participants, and it was highlighted that maintaining financial resilience, and responding in timely manner to operational disruptions helps airlines stand out from the competition and helps in navigating through volatile market conditions. Many participants highlighted that managing crises situations, strong leadership and quick decision making are very important. One participant highlighted that when ‘Strong leadership is present, they can quickly decide and look for alternate plans’. Likewise, another participant explained that the ‘fast-track decision making processes help airlines recover faster’, during periods of

uncertainty.

The speed of decision making was one area which was highlighted by most of the participants as a key factor in building organizational resilience. Participants also highlighted that delayed decision-making processes often deteriorate the situation and create financial challenges, from which it becomes further challenging for airlines to turn around. One participant explained that ‘delayed decisions have always worsened the cash burn’, while another participant highlighted that ‘decision latency is one of the most underestimated contributors to airline distress’. These comments clearly indicate that if the leadership acting quickly to challenging situations can influence airline’s ability to stabilize its financial position.

Participants also highlighted the importance of data-driven decision making. On the same lines, one participant mentioned that ‘decision-making frameworks supported by data’ whereas another participant explained that decisions should be ‘mostly data driven’, highlighting the importance of right data and analytics tools during right time to the leadership team to take effective decisions. Additionally, proactive planning and scenario-based decision making were also highlighted as important practices. Few participants highlighted the importance of having contingency plans and alternative strategies to be in place for airlines to navigate through unforeseen circumstances. For example, one participant highlighted the need of ‘scenario-based planning instead of normal planning’ whereas another participant highlighted the importance of having ‘plan B and plan C’ strategies during crises times.

It was further highlighted during the interview the importance of agile organization and adaptive decision-making processes. One participant highlighted that airlines must be able to ‘adapt quickly to changing environments’, while another explained

that following a decentralized approval process will help airlines to take faster decisions during operational disruptions. To conclude, participants consistently highlighted that effective strategic decision making is a combination of strong leadership, rapid response capabilities, data driven decision making and proactive planning. All these factors together help airlines to respond to market disruptions more effectively and to build a financial stable airline which can sail through successfully during unstable times.

#### **4.2.6.4. Board Effectiveness**

Board effectiveness is an important governance factor which majorly influences airlines financial resilience. Participants highlighted that strong leadership oversight, transparent governance practices, and clear stakeholder communication are very important for smooth airline operations during periods of disruption. Many participants highlighted that strong leadership which is supported by stakeholders can help airlines navigate through challenging situations. One participant explained that ‘strong leadership with stakeholders backing the airline helps to manage disruptions effectively’. With this statement it is evident that a clear alignment is required between leadership team and key stakeholders, to maintain organizational stability during uncertain times.

Participants also highlighted the importance of governance structures and board involvement in directing strategic decisions. One participant highlighted that ‘the effectiveness of the board decides how the organization responds during difficult times’, highlighting how important the board level decision making is on organizational performance. Another participant highlighted that boards with ‘experience and exposure’ are valuable to support the management during complex operational challenging times.

Likewise, couple of participants also highlighted the importance of transparent and open communication as recurring key governance practices. This open communication

with stakeholders and investors, strengthens the trust with the internal teams and therefore improves effective decision-making processes. One participant highlighted that ‘transparent communication with stakeholders builds confidence’ while another participant mentioned that ‘sharing financial data and maintaining open communication within the organization helps create alignment.’ There are couple of other important comments from the participants on board effectiveness were ‘strong governance and board oversight are necessary to guide leadership decisions’, ‘boards should be allowed to challenge decisions made by management’. These comments clearly state that an environment should be built where constructive feedback is taken positively and having a clear accountability mechanism will contribute to stronger organizational governance.

In contrast to what was discussed so far, few participants highlighted the fact that weak governance can even negatively impact stability of the organization. For example, one participant mentioned that when there is ‘no control or limitation over certain decisions,’ this will expose the organization towards operational risks. To avoid misalignments, it was also highlighted that there was a clear alignment between organizational goals, leadership teams and other business units. To summarize, participants consistently highlighted how effective boards with distinct characteristics such as strong governance structures, transparent communication, experienced leadership can create clear alignment between management and respective stakeholders.

#### **4.2.6.5. Debt Management**

Debt management is considered as a critical financial strategy for maintaining by using which airline can maintain stability and prevent financial distress. Participants were highlighting the importance of maintaining acceptable leverage levels, having liquidity buffers in place, and a structured debt management to avoid excessive financial risk. Many

participants highlighted how important it is to maintain strong liquidity in the aviation industry. One participant explained that airlines must maintain sufficient cash and highlighted ‘cash is usually king’ during the disruption period. Another participant highlighted that ‘strong cash buffers and disciplined cash monitoring systems’ play a major role in staying afloat during challenging financial periods. Participants also highlighted that having liquidity available for couple of months to support operational runway can provide financial protection during demand shocks and unforeseen circumstances.

Few participants also highlighted the risk associated with having excessive leverage. For example, one participant explained that airlines should not borrow beyond their capacity of repayment ‘the airline’s capability to repay the loans’. Likewise, another participant highlighted depending only on leverage without strong cash flow can also push airlines towards significant financial risk. These perspectives and thought process clearly indicated that maintaining debt levels within the limits is necessary for airlines long term financial sustainability.

Additionally on top of maintaining adequate leverage levels, participants also highlighted strategies which can improve financial sustainability via asset management and structured financial methods. Many participants highlighted the importance of leasing arrangements instead of buying aircraft, explaining that leasing flights can reduce capital investment and will preserve liquidity. One participant highlighted that airlines often ‘lease their fleets rather than buying everything’, while another participant the importance of ‘sale and leaseback arrangements’ as a strategy by using which airlines can convert assets into liquidity when required.

In addition to these financial strategies, participants also highlighted the importance of renegotiating the contracts, restructuring the debt’s and extending repayment

schedules, which can help airlines in maintaining stability during financial unstable times. For example, one participant mentioned that airlines may 'restructure debt or extend repayment maturity' to maintain liquidity and for stabilized operations. To conclude, overall, participants were highlighting maintaining effective debt management will require, strong liquidity buffers, to avoid excessive leverage, restructuring debts and adopting flexible financial mechanisms such as leasing and asset management. These practices from the participants' perspective were considered critical to address financial instability and for long-term operational resiliency.

#### **4.2.6.6. Risk Management Systems**

Risk management system was another important theme which emerged from the interview data. Participants consistently highlighted that identifying risks during the early stage and responding them proactively plays a critical role in building a financially resilient airline. It was clear from the discussions that airlines which have structured risk monitoring mechanisms were in a better position to handle both financial and operational disruptions. Importance of early warning signals in identifying financial distress was also highlighted by many participants. Some of the key indicators which were mentioned during the discussions were 'cash flow crunch, delayed payments to vendors and employees, persistent cash burn, declining bookings, increasing cancellations and reduction in operating margins.'

Additionally, few participants also highlighted other indicators such as rising debt levels, negative working capital and increasing cost structures as early signs leading airlines towards financial instability. These responses clearly indicate that identification of signals during the early stage helps airlines to take actions before the situation gets further deteriorated. Emphasis was put on how forecasting should be done, which is on continuous basis, which should include month on month and real time. Scenario planning was also

highlighted as a critical practice, where airlines must prepare themselves with alternative strategies which should consist of Plan B and Plan C to manage unforeseen circumstances. Few participants also emphasized how important scenario simulation and predictive models are, which will help airlines to anticipate financial pressures and operational disruptions in advance.

Fuel hedging was another key area of practice which was highlighted by many participants. It was clear that fuel hedging helps airlines to reduce cost volatility and helps to manage external risks which are associated with the fluctuating fuel prices. In addition to all traditional practices, participants also highlighted the importance of analytics and digital tools in risk management. Few participants also mentioned that the use of AI driven dashboards, predictive models, analytics tools which covers end-to-end data integration will help in detecting booking pattern anomalies, forecast revenue trends and highlight operational disruptions which could be caused due to any external or internal delays.

Another key area which was brought into focus during the interview discussions was having a fully integrated system. It was emphasized that risk management should not be handled in silos instead there should be an integrated and centralized approach where all departments have visibility on operational and financial issues and performance. This includes full end to end dashboards views and integrated monitoring systems which will provide real time updates across the organization. To conclude, most of the participants highlighted that having an effective risk management system requires building strong early warning mechanisms, forecasting and scenario planning, fuel hedging, use of analytics and predictive tools, and integrated organizational visibility. These practices together will help airlines identify the risks early in the cycle, respond proactively and maintain financial stability during the uncertain conditions.

#### **4.2.6.7. Digital Capabilities and Systems Integration**

Digital capabilities and system integration was one important inductive theme which emerged from the interview data. Participants highlighted how important it is to have fully integrated digital systems which can provide real time visibility across different airline functions such as flight operations, crew management, maintenance and commercial business. Several participants highlighted the importance of having centralized operational monitoring system and fully integrated dashboards, which will allow airlines to monitor their operational performance and to take timely decisions during times of disruption. Participants also highlighted, to avoid operational silos and to improve coordination, data should be integrated across all departments.

Additionally, the use of analytics, AI-driven dashboards, and predictive models were highlighted as an important outcome of having fully integrated systems, which will allow airlines to identify operational trends, detect potential disruptions and to support better decision making. Another very interesting comment from one of the participants was that if the airlines have advanced digital capabilities and well-integrated systems, strong customer base can be built using customer journey data points. To conclude, participants indicated to improve operational visibility, enhancing customer journey across different data points and taking time decision, stronger digital capabilities and integrated operational systems play a crucial role.

### **4.3. Summary of Findings**

This section summarizes the key findings of both RQ1 and RQ2. With regards to RQ1, document analysis was used as a qualitative method to perform cross case analysis. Documentary evidence indicates that the fuel price volatility acted as an external cost pressure affecting the airlines operating expenses, however it was not independently

causing or pushing airlines towards bankruptcies. Likewise, economic recession was one of the major causes across all five cases, which caused major reductions in passenger demand and created revenue unstable environment during the periods of downturn.

Financial leverage was another factor which clearly emerged as major structural factor, where high debt and financial obligation limited the ability of the airlines to absorb financial shocks and to maintain required liquidity to sustain. Likewise, management inefficiency was also another factor, where the delays in decision making, operational constraints and high-cost contracts/structures contributed to the deterioration of the financial position of the airlines. On top of four constructs which were identified from literature review, one more construct which emerged as part of inductive theme was competitive pressure, where intense price competition, the presence of low-cost carriers and the increase in customer behavior where they focus only on fare prices than brands, created additional financial pressure on the airlines.

| <b>Construct</b>               | <b>Types of Documentary Evidence</b>                                                                                                                                               |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fuel Price Volatility</b>   | Press releases, company reports, research articles, and financial documents referring to fuel cost increases and volatility                                                        |
| <b>Economic Recession</b>      | Press releases, research articles, company reports, and bankruptcy-related documents referencing economic downturns, demand decline, and revenue instability                       |
| <b>Financial Leverage</b>      | Bankruptcy filings, SEC reports, financial statements, and court documents detailing debt, liabilities, and financial obligations                                                  |
| <b>Management Inefficiency</b> | Press releases, bankruptcy filings, research articles, and operational/organizational documents highlighting cost structure issues, labor challenges, and decision-making failures |
| <b>Competitive Pressure</b>    | Research articles, press releases, company documents, and bankruptcy-related sources highlighting price competition, low-cost carriers, and competitive disadvantage               |

Table 6: Summary of documentary evidence across key constructs for RQ1, author made

The above table clearly indicates the source of the documents mapped with each construct and some of the major causes supporting these constructs. To conclude, the document analysis clearly indicates that airline bankruptcies in the United States were not caused by a single factor, but rather due to the combined effect of internal and external pressures, which together contributed to the financial distress of the airlines.

| <b>Codes</b>                     | <b>Deductive / Inductive</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Operational Efficiency</b>    | Deductive code               | Refers to the ability of airlines to manage operations efficiently through effective network planning, fleet utilization, scheduling robustness, simplified fleet structures, and operational coordination. Participants emphasized practices such as maintaining fleet commonality, improving aircraft utilization, reducing turnaround times, optimizing route planning, and maintaining strong operational control across flight operations, crew, and maintenance. |
| <b>Revenue Diversification</b>   | Deductive code               | Refers to the development of multiple revenue streams beyond passenger ticket sales. Participants highlighted ancillary services (such as baggage fees, seat selection, and priority boarding), cargo operations, loyalty program monetization, partnerships with hotels and rental services, and bundled travel products as key mechanisms that help airlines generate additional revenue and reduce reliance on ticket income.                                       |
| <b>Strategic Decision-Making</b> | Deductive code               | Refers to the capability of airline leadership to make timely, informed, and proactive strategic decisions during periods of disruption. Participants emphasized fast decision-making, data-driven leadership decisions, scenario planning, decentralized approval processes, and the ability to respond quickly to operational and market changes.                                                                                                                    |
| <b>Board Effectiveness</b>       | Deductive code               | Refers to the role of governance structures and board oversight in guiding airline leadership and strategic direction. Participants highlighted experienced leadership teams, transparent communication with stakeholders, strong governance structures, and boards that can challenge management decisions and maintain accountability during crisis situations.                                                                                                      |
| <b>Debt Management</b>           | Deductive code               | Refers to financial discipline in managing leverage, liquidity, and debt obligations. Participants emphasized maintaining strong cash reserves, avoiding excessive leverage, managing debt maturity profiles, using leasing and sale-leaseback arrangements                                                                                                                                                                                                            |

|                                                     |                |                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                     |                | to preserve liquidity, and ensuring that debt levels remain within the airline's repayment capability.                                                                                                                                                                                                                                                                                                                      |
| <b>Risk Management Systems</b>                      | Deductive code | Refers to structured mechanisms used by airlines to monitor, identify, and mitigate operational and financial risks. Participants highlighted forecasting and scenario planning, early warning indicators such as declining bookings or rising cancellations, fuel hedging strategies, predictive analytics, integrated dashboards, and enterprise risk management systems that provide visibility across the organization. |
| <b>Digital Capabilities and Systems Integration</b> | Inductive code | Refers to the role of integrated digital systems and analytics platforms in supporting airline operations and decision-making. Participants emphasized centralized operational control centers, integrated data across flight operations, maintenance and crew management, AI-driven dashboards, and advanced analytics that enable real-time visibility and more informed operational decisions.                           |

Table 8: Deductive and Inductive Coding Framework with Construct Descriptions, author made

For RQ2, the analysis of semi-structured interview data identified six key strategic themes to build financially sustainable airlines, which are operational efficiency, revenue diversification, strategic decision-making, board effectiveness, debt management, and risk management systems. Participants highlighted the importance of operational efficiency for airlines to maintain stable operations during disruptions through optimized network planning, fleet utilization, scheduling discipline and through structured operational process. Likewise, airlines should diversify their revenue streams through ancillary services, cargo operations, loyalty program monetization, and strategic partnerships. Participants also highlighted how timely and informed strategic decision-making can bring a positive impact, when supported by experienced leadership and strong governance structures.

Effective board involvement and transparent communication with stakeholders were considered as another key factor that can guide organizational decisions. Effective debt management was emphasized by maintaining liquidity buffers and with flexible financing structures was also emphasized as a critical factor which can drive airlines towards financial stability. To conclude, quite a few risk management strategies were highlighted such as forecasting, scenario planning, fuel hedging and monitoring early warnings indicators, which will help airlines in identifying potential operational and financial risks during early stages itself by using which disruptions can be addressed accordingly. In addition to these six themes, one inductive theme emerged which was digital capabilities and systems integration. In this theme participants focused on how important integrated operational systems are and the availability of data across all airline functions.

#### **4.4. Conclusion**

The results chapter presented the findings of both RQ1 and RQ2 based on document analysis and semi-structured interviews. The outcome of document analysis indicates that across the five airlines, multiple factors were consistently present which were pushing airlines towards bankruptcy, which are fuel price volatility, economic recession, financial leverage, management inefficiency, and competitive pressure. A clear pattern was evident that these factors were recurring across cases, however the impact of these factors varied based on the financial and operational conditions of the airlines.

It was very evident that financial leverage and management inefficiency were strongly present across most cases, however external factors such as economic recession and fuel price volatility acted as a contextual pressure affecting demand and cost. Competitive pressure was an inductive theme which emerged in multiple cases and highlighted the role of pricing dynamics and market competition influencing airline performance. From the

analysis of semi-structured interviews, several strategic themes were identified, which include operational efficiency, revenue diversification, strategic decision-making, board effectiveness, debt management, risk management systems, and digital capabilities and systems integration. Throughout the semi-structured interview participants highlighted the importance of these strategies and how important these practices are for maintaining financial stability and responding to operational disruptions.

To conclude, the results clearly indicate that both the causes of financial distress and the strategies to address them were consistently observed across the data sources. A clear pattern was identified which is airlines financial performance is fully influenced by a combination of structural external factors and internal capabilities developed by airlines to withstand these challenges. The next chapter builds on these findings by providing a detailed discussion and interpretation of the results, linking them to the theoretical frameworks and existing literature, and explaining how these factors interact to influence airline financial distress and resilience.

## CHAPTER V: DISCUSSION

### 5.1 Discussion of Results

This section of discussion of results focuses on the findings of the study by integrating the outcomes from both RQ1 and RQ2 and will focus on explaining how and why these identified factors contributed to the airline bankruptcies and how these external and internal challenges can be addressed through strategic competencies. As a result of RQ1, there was a clear pattern which emerged from analysis of all cases, which is that the airline bankruptcies are not a result of single isolated factors, but rather it is an aggregated outcome which builds overtime due to multiple pressures. Documentary evidence indicated that both internal and external factors were consistently present across all cases, but the extent of which they impacted the airline's financial and operational conditions varied based on their latest circumstances.

To start with, external factors such as fuel price volatility and economic recessions acted as a triggering mechanism that increased the financial pressure on airlines, however, these factors alone did not directly lead the airlines towards bankruptcy. The impact from these factors were significant only when the airlines were already operating under internal constraints such as high financial leverage and inefficient management. From cross case analysis, it was very much evident that airlines such as American Airlines, Delta Air Lines, and United Airlines were already under high debt and significant financial obligation before external shocks kicked in. When these external shocks occurred, their existing vulnerabilities further intensified, pushing them quicker towards financial distress. Likewise, in the cases of Republic airways and Ravn Air, internal financial and operational weakness were already present, and on top of this external pressure accelerated their

decline.

Another clear pattern which was evident from the documentary analysis was that these internal factors played a major role in determining the progression of airlines towards bankruptcies. For example, high financial leverage was causing structural constraint, which was limiting flexibility, likewise, management inefficiency created a restriction on the airline's ability to implement timely corrective actions. This internal weakness created an environment due to which airlines were unable to respond effectively to both competitive and economic pressures.

Additionally, on top of these deductive constructs, competitive pressure emerged as an important inductive construct across multiple cases. As Airline industry has always been operating in very highly competitive environment, surrounded by aggressive pricing strategies, fare discounting, entry and expansion of low-cost carriers, this competitive environment reduced revenue margins and flight expansion strategies, resulting in increased pressure on airlines to maintain cost structure to compete with their competitors. A further deeper pattern was identified while examining these factors interaction with each other. Where financial leverage increased fixed obligations, management inefficiency delayed corrective actions and competitive pressure reduced revenue margins. When these factors combined with external shocks such as economic recessions and fuel price volatility, it created a compounding effect that pushed airlines towards financial deterioration. It was clear that airline bankruptcy was not an outcome of an immediate event, but rather a gradual process of financial decline, which gets materialized overtime. Airlines initially experience pressure from one or two of these factors, however overtime as the pressure intensifies and interacts with each other, the financial condition of the airline gets deteriorated to an extent that the recovery becomes

impossible.

From the theoretical perspective, the five constructs which are fuel price volatility, economic recession, financial leverage, management inefficiency and competitive pressure strongly align with financial distress theory and agency theory. Where financial distress theory focuses on explaining how financial constraints such as high debt levels, and declining cash flows increase the likelihood of bankruptcy, likewise, Agency theory focuses on how managerial inefficiencies, delayed decision making and delay in timely corrective actions contribute to the progression of financial distress. From the above-mentioned factors, it was evident that these push airlines towards financial distress, however the findings of RQ2 indicated that these outcomes can be avoidable with strong internal capabilities and effective management practices, which will help airlines to withstand these pressures.

From a cross-case analysis perspective, it was clear that the strategic capabilities such as operational efficiency, revenue diversification, effective strategic decision-making, board effectiveness, disciplined debt management, and structured risk management systems directly influence how airlines respond to the challenges identified in RQ1. Airlines that maintained efficient cost structures, stronger governance, and better financial discipline were able to absorb external shocks more effectively, while those with delayed decision-making and weak internal structures experienced accelerated financial deterioration.

A deeper pattern was evident, which is the interaction between internal weakness and no strong strategic capabilities determines the outcome. While RQ1 explains the conditions under which the airlines march towards bankruptcies, RQ2 clearly indicates that when there are strong internal capabilities, airlines can mitigate these risks effectively

and improve their financial resilience. This clearly shows that airline bankruptcy is never solely driven by external conditions, however by how effectively airlines manage their internal resources and work on their strategic responses. To conclude, this section of the chapter clearly indicates that the airline bankruptcy is a multi-dimensional phenomenon driven by many factors such as financial, operational, managerial, competitive, and external economic factors. In the meantime, the findings clearly indicate that these challenges can be effectively managed through strong internal capabilities, proactive decision-making, and disciplined financial management.

## **5.2 Discussion of Research Question One**

### **5.2.1 Fuel Price Volatility**

The document analysis indicated that the fuel price volatility was one of the significant external factors which created cost pressure across multiple cases. It was very evident that fluctuations in fuel prices increased operational expenses and created uncertainty in cost structures. However, a clear pattern was evident that fuel price volatility was not the only independent factor which led the airlines towards bankruptcy. Instead, its impact was majorly witnessed on airlines which were already in financial strain. Airlines with strong financial structures and better cost control mechanisms were able to absorb fuel price shocks more effectively, whereas airlines with high financial obligations faced greater challenges.

As an outcome of cross analysis, from the list of five airlines, three airlines, American, Delta and United airlines were already operating under huge cost pressure and with fuel price volatility kicking in, that intensified the financial pressure further. Likewise, for smaller carriers such as Ravn air, even slight increase in fuel price costs had a significant impact due to very limited financial buffers. Through the lens of financial

distress theory, these findings clearly indicate that fuel price volatility reduces available cash flow and increases operational costs, therefore creating liquidity pressure on airlines. However, the theory also suggests that external shocks alone are not sufficient to cause bankruptcy unless combined with internal financial weaknesses.

### **5.2.2 Economic Recession**

The document analysis clearly indicated that economic recession acted as one of the most important external factors which influenced airlines financial health and performance. It was very evident that during the period of economic recession, there was a sharp decline in passenger demand, which created a direct impact on the revenue generation of the airlines. A clear pattern was evident that during economic recession times, airlines experienced a huge drop in both business and leisure travel, even though their fixed costs remained unchanged. This mismatch between decline in revenue and ongoing financial obligations created huge liquidity pressures.

From cross case analysis perspective, airlines such as American Airlines, Delta Air Lines, and United Airlines were particularly affected due to their large operational scale and high fixed cost structures. In order to stay operational, these airlines were maintaining their operations, by paying employee salaries, and were even meeting lease obligations with reduced revenues which further intensified their financial strain. The scenario for Republic and Ryan was also same, even though their scale of operations were small, they were unable to sustain during the period of reduced demands.

From this analysis, it was clearly evident that economic recession alone didn't push airlines towards bankruptcy, instead, it acted as an enabler particularly for airlines which are already having high internal financial and operational challenges. From the perspective of financial distress theory, these findings clearly indicate that the economic

recession does reduce cash inflow while the fixed obligations stay constant, therefore increasing the probability of financial distress. This theory further supports the observation which firms with weaker financial structures that are more exposed during the periods of economic downturns. It was also very evident that the impact of economic recession was not uniform across all airlines. Airlines with better financial discipline and operational efficiency were able to withstand the downturn more effectively, whereas those with high leverage and inefficiencies experienced rapid financial deterioration.

### **5.2.3 Financial Leverage**

From all the internal and external factors which will be discussed as part of RQ1, financial leverage was one of the most dominant and consistent factors which was contributing to airline bankruptcies across all the cases. All airlines which filed for bankruptcy were operating with significantly high levels of debt, lease obligations, and other financial commitments. A clear pattern was identified where high financial leverage created structural financial constraints, limiting the ability of airlines to respond to changing market conditions. As the financial obligations increased, airlines were pushed to allocate a major portion of their cash inflow to service these debts, therefore leaving very little room for operational flexibility.

From cross case analysis perspective, it was very much evident that American Airlines had huge financial obligations, which included long-term debt and other liabilities, which further created significant financial pressure. Likewise, Delta airlines and United airlines were also operating with increasing debt levels and financial losses, which created financial constraints, pushing them to bankruptcy. Likewise, in the case of Republic airways, the long-term debt doubled in a short period of time which deteriorated the financial structure of the airline, due to which they struggled to meet their basic financial

commitments. Even court filings also indicated the same. Ravn air also faced a similar situation, however their outstanding debt obligations combined with limited assets highlighted the critical financial condition of the airline.

Through this study, a deeper pattern was evident which is when the financial leverage is increased, airlines become more vulnerable to both internal and external shocks. Through the lenses of financial distress theory, these findings clearly indicate that the probability of bankruptcy of an airline is increased when the financial leverage is excessive. The theory further suggests that firms with high leverage are more likely to face liquidity crises when there is a decline in revenue. It was also very evident that financial leverage acted as a foundational issue across all cases. While other factors contributed to financial distress, high debt levels created a situation where airlines were unable to absorb shocks or recover effectively.

#### **5.2.4 Management Inefficiency**

Similar to other three constructs, Management inefficiency was also another recurring internal factor which was influencing airlines progression towards bankruptcy across all cases. From the document analysis it was evident that delayed managerial decisions created humongous financial and operational challenges. Management inefficiency manifested through high-cost structures, operational constraints, and delayed restructuring decisions. Airlines were operating with cost structures that were significantly higher than those of their competitors, particularly in terms of labor costs and productivity levels.

From cross case analysis perspective, American airlines faced a major cost disadvantage compared to their competitors, due to high labor costs and low productivity levels. This created more pressure on their finances, particularly in a market where there

was a lot of competition. From United Airlines' perspective, they were also working with a very high-cost structure and followed inflexible operational practice, which made it hard for them to compete in the market with their competitors. Even though Delta Air Lines tried to reduce their costs over a period, they still faced challenges related to their cost structures. Likewise in the case of Republic airways, operational challenges such as pilot shortages and labor related issues impacted the airlines performance. Ravn air also faced significant operational disruptions which contributed to its financial decline.

The study further suggests that the management's failure to create timely actions, which included cost restructuring, labor contract negotiations, operational and leasing adjustments made the financial condition of the airlines even worse. It was also evident from most cases that airlines management didn't take big decisions until bankruptcy proceedings gave them legal framework. This delay created further financial pressure and made it less likely for the airline to recover. Through the lens of Agency theory, these findings clearly indicate that the managerial inefficiencies and delayed decision-making process can highly impact the financial outcomes of the airlines. Furthermore, to conclude, these ineffective strategies and delayed responses were triggered due to misalignment between managerial actions and long-term organizational goals.

#### **5.2.5 Competitive Pressure**

In addition to the four deductive constructs which were discussed in this chapter so far, competitive pressure emerged as a significant inductive factor across all five cases. The document analysis clearly indicated that the airline industry is built and operated in an intense competition environment, with aggressive pricing strategies and with increase of presence from low-cost carriers. A clear pattern was evident that the price competition played a major role in reduction of revenue margins across all airlines. It was also evident

that in price sensitive markets, airlines were pushed to reduce their price tickets to withstand their competitors.

From a cross-case analysis perspective, American airlines faced an intense competition from both legacy and low-cost airlines which further intensified their financial pressure. It was also evident that competitors which went through restructuring were able to lower their prices, which did put American airlines under further pressure. United airlines and Delta airlines also had to deal with similar kinds of pressure from their competitors, due to which they were very particular about building dynamic pricing strategies and cost cuts to stay ahead in the competition. Republic airways had to deal with an unique kind of competition, which is shortage of pilots and operational challenges which further added to their financial strain.

There was a deeper pattern which was identified which was competition forced airlines to maintain low cost, which made it difficult for airlines to sustain. This kind of working environment created higher risks for airlines which had high operating costs. It was also very clear that the price wars and fare discounts made airlines keep their fares low, which directly impacted their revenue margins.

#### **5.2.6 Cross Case Analysis and Interaction of Factors**

A clear pattern was evident across all cases that bankruptcy was not caused by single factor, however it was caused due to multiple factors interacting with each other over a period. Financial leverage made structural financial constraints which increased the fixed costs. Management inefficiencies made it difficult for airlines to deal with these challenges in a timely manner. Competitive pressure made airlines reduce their revenue margins, further intensifying the financial strain. All these factors, when combined with economic recession and volatile fuel prices, deteriorated the financial condition of the

airline.

It was clear that these factors supported each other. These elements worked together to produce a compounding effect that forced airlines into financial difficulties. Theoretically, agency theory explains how managerial inefficiencies contribute to the development of distress, while financial distress theory explains how financial constraints increase vulnerability. A comprehensive explanation of bankruptcy can be understood with the interactions of these multiple factors.

### **5.3 Discussion of Research Question Two**

Research question two aimed to identify the strategies which airlines can adopt to build internal strategic capabilities, leadership mechanisms and financial management practices, which will enable airlines to build a resilient financial structure which can help airlines prevent financial distress. While RQ1 was focused on identifying the causes of bankruptcies and the patterns behind this major failure, this section explains how these challenges can be addressed through strategic responses. Through the analysis of semi-structured data, a clear pattern was evident that the strategies identified in RQ2, directly correspond to the challenges identified in RQ1. Additionally, the airlines which were able to build strong internal capabilities, maintain financial discipline, and implement effective governance mechanisms were able to withstand financial pressure compared to their competitors and peers. This section further interprets each constructs through the lens of their respective theoretical frameworks.

#### **5.3.1 Operational Efficiency**

The findings from semi-structured interview clearly indicate that operational efficiency plays a crucial role in reducing cost structures and helps in building robust financial structure. It was clear that the airlines with efficient operational strategies were

able to manage costs effectively, therefore improving their ability to withstand both competitive and economic pressures. It was further identified that operational efficiency directly addresses one of the major challenges identified in RQ1, which is high-cost structures directly driven by management inefficiency. Airlines, which optimized their operations on time, were able to improve productivity, and therefore were able to reduce unwanted spending, due to which they were able to maintain competitive cost levels in the market.

From a cross-case analysis perspective, inefficient operations contributed to major financial distress in several airlines. From the perspective of Resource-Based View (RBV) theory, operational efficiency can be considered as a valuable internal capability that provides cost advantage. Airlines which develop and maintain efficient processes and optimize their resource utilization are in a better position to sustain their competitors. It was also highlighted from the interview discussions that operational efficiency is not only about reduction of costs, but it also includes process optimization, coordination across multiple departments, leadership buy-in and effective utilization of resources. These operational capabilities will create a support system to airlines in responding more effectively to both internal and external pressures.

### **5.3.2 Revenue Diversification**

The findings from the semi-structured interview clearly indicate that Revenue diversification is an important strategy to reduce dependency on single source of income. From the discussions it was clearly evident that airlines which were dependent only on single source of income were more likely to face financial challenges during the periods of economic downturns. Revenue diversification helps in creating multiple sources of income and provides financial stability to the airlines. Airlines which developed additional revenue

sources were able to better manage the fluctuations.

From cross case analysis perspective, revenue instability was a major issue during economic recession. Therefore, diversification acts as a mechanism to stabilize cash flows when passenger demand drops. Through the lens of RBV theory, revenue diversification is considered as a strategic capability, which enhances financial resilience of the airlines. It further helps airlines to mitigate the risk of bankruptcy by maintaining consistent multiple revenue streams even during unforeseen challenging times. It was also clear that revenue diversification not only improves financial stability but also enhances airline's financial structure and their ability to withstand dynamic market conditions.

### **5.3.3 Strategic Decision Making**

Strategic decision making plays a critical role in managing financial distress with timely and proactive decision making. These decisions have helped airlines to respond effectively to emerging challenges. A clear pattern emerged from RQ1 documentary analysis, which is delayed decision making was one of major causes which created financial distress, particularly under management inefficiency. Therefore, improving the strategic decision-making process will directly address this challenge.

Furthermore, from cross case analysis, it was very much evident that airlines with delayed restructuring decisions faced greater financial deterioration, compared to their peers who took timely actions which stabilized their operations. From the perspective of Agency Theory, effective decision-making reflects alignment between management actions and organizational goals. When managers act in the long-term interest of the organization, it reduces the risk of financial distress. It was also evident that strategic decision making is not only about responding to crises but also understanding and identifying underlying potential risks and taking proactive measures.

#### **5.3.4 Board Effectiveness**

Board effectiveness creates an environment in making sure that the right level of accountability and governance is in place. With strong governance structure, managerial actions can be effectively monitored and this can further improve the decision making process. A clear pattern was evident that weak governance contributed to management inefficiency in RQ1. Therefore, improving board effectiveness directly addresses agency-related issues. From a cross-case perspective, it was very evident that lack of oversight and delayed interventions contributed to financial deterioration. While viewing through the lens of Agency theory, effective boards act as a monitoring tool which aligns managerial actions with stakeholder's interests. Due to board effectiveness, poor decision making is reduced and there is improvement in organizational performance. It was also evident that strong governance structure makes sure timely corrective actions are taken, which is also critical for preventing financial distress.

#### **5.3.5 Debt Management**

As a result of documentary analysis from RQ1, it was evident that high financial leverage was a major cause for bankruptcy. From the data analysis of semi-structured interviews, it was evident that effective debt management directly addresses the issue of excessive financial leverage. Airlines which maintain and control their debt levels and have structured repayment methods aligned with their cash flows are better positioned in the industry and succeed in avoiding financial distress. As an outcome of cross case analysis, airlines with high debt levels struggle to manage their financial obligations, therefore maintaining the debt levels within the limit becomes a key criteria for any airline. Through the lens of financial distress theory, effective debt management reduces the probability of airlines entering insolvency and helps in maintaining financial flexibility and

liquidity. To conclude, essential components of debt management are maintaining liquidity buffers and controlling airline financial commitments.

#### **5.3.6 Risk Management Systems**

From the findings it clearly indicates that having a strong risk management system will play a key role in handling external uncertainties. From the study, external factors from RQ1, which are fuel price volatility and economic recession have created significant challenges for all airlines. A clear pattern emerged, which is airlines with structured risk management systems were able to better anticipate and respond to these unforeseen challenges. Additionally, from cross case analysis perspective, proactive risk management strategy has contributed to the financial stability of the airlines. Through the lens of financial distress theory, risk management systems help in reducing the uncertainty and does help in maintaining stability with cash flows. Some of key risk management tools which were highlighted in the interview were forecasting tools, scenario planning, and early warning mechanism which plays a critical role in identifying risks at an early stage.

#### **5.3.7 Digital capabilities and systems integration**

As an outcome from the discussion of semi-structured interview, it was clear that digital capabilities and system integrations play a critical role in enhancing the operational visibility, decision making and building overall financial resilience for the airlines. Most of the interviewees highlighted that airlines with advanced digital infrastructure, end-to-end integrated systems and with data driven capabilities were able to respond more effectively to both internal and external disruptions. A clear pattern was identified that digital capabilities will help in addressing multiple challenges identified as part of RQ1, which are management inefficiency, delayed decision making and operational constraints. Airlines which were not having full end to end integrated systems and who

were dependent on legacy IT infrastructure faced delays in decision making and further faced issues with real time data availability, which caused inefficiencies across departments. Conversely, airlines with centralized data systems and advanced latest analytics with automation capabilities were able to make faster and informed decisions.

From a cross-case analysis perspective, it was evident that digital maturity acts as enabling factor. Interview findings too highlighted that capabilities like integrated data platforms, cloud hosted data centers, predictive analytics, and AI based forecasting tools helped in improving the airlines' ability to monitor performance and to identify unforeseen risk and disruptions. These capabilities were particularly useful in managing demand, building pricing strategies and improving resource allocations. Through the lens of RBV theory, digital capabilities can be considered as a strategic internal resource which provides competitive advantage over their peers. Airlines which were able to invest in their digital capabilities and integrated systems were able to build unique capabilities which can help in enhancing customer experience, revenue optimization and support overall organizational performance.

#### **5.4 Conclusion**

The discussion of results clearly indicates that airline bankruptcy is a multi-dimensional phenomenon driven by the interaction of financial, operational, managerial, competitive, and external economic factors. A clear pattern was evident that no single factor independently led to bankruptcy, instead, it was the cumulative effect of multiple pressures that evolved over time and progressively weakened the financial condition of the airlines. It was very evident that internal factors such as financial leverage and management inefficiency played a dominant role in driving airlines towards financial distress. High financial obligations created structural constraints, limiting flexibility, while delayed

decision-making and ineffective management practices restricted the ability of airlines to implement timely corrective actions. At the same time, external factors such as economic recession and fuel price volatility acted as triggering mechanisms which intensified the financial pressure, particularly for airlines that were already operating under weak financial and operational structures. Competitive pressure further reduced revenue margins and increased the difficulty for airlines to sustain within a highly price-sensitive market environment.

A deeper pattern was also evident from the cross-case analysis, which is the interaction between these factors that intensified the situation. For example, financial leverage increased fixed obligations, likewise, management inefficiency delayed timely corrective actions, and competitive pressure reduced the profitability of the airlines. When these factors were combined with external shocks, the deterioration of financial structure of airlines accelerated quite significantly. These results clearly indicate that the bankruptcy is not an immediate business outcome, but rather a slow process of decline which gets developed over time.

However, the findings from RQ2 indicate that these outcomes are not unavoidable. For example, airlines which have developed strong internal capabilities such as operational efficiency, revenue diversification, effective strategic decision-making, strong governance, disciplined debt management, structured risk management systems, and advanced digital capabilities were able to respond to the challenges identified in RQ1 more effectively. These strategies identified as part of RQ2 directly address the structural and operational weaknesses identified in RQ1 and help airlines to improve their financial resilience and build stability.

To conclude, a very clear pattern was identified, which is airline bankruptcy is

not solely driven by external conditions, but rather by how effectively these airlines manage their internal resources and respond to challenges on time. Airlines which failed to implement the timely corrective actions and didn't invest in internal capabilities were pushed towards financial distress, whereas those who maintained financial discipline, operational efficiency and proactive strategic responses were able to withstand these external and internal pressures successfully. The next chapter builds on these findings by creating a overall summary, followed by theoretical and managerial implications and recommendations for future study. This further helps in linking the identified causes and strategic responses to broader academic and practical contributions.

## CHAPTER VI: SUMMARY, IMPLICATIONS AND RECOMMENDATIONS

### 6.1 Summary

This chapter summarizes the major findings of this study, which was aimed to identify the major causes of airline bankruptcy in the United States aviation industry and what strategies should be developed to improve financial resilience and to avoid bankruptcy. This study majorly focused on two research questions. Research question one (RQ1) was focused on identifying the key factors and recurring patterns contributing to airline bankruptcies through document based cross case qualitative analysis for these five airlines, which are American Airlines, Delta Air Lines, United Airlines, Republic Airways, and Ravn Air. The second Research question (RQ2) was focused on identifying the strategies to mitigate financial distress through semi structured interviews with 15 aviation professionals.

With regards to RQ1, document analysis clearly indicated that the airline bankruptcies were driven by a combination of both external and internal factors. For example, fuel price volatility was identified as a recurring external factor which was creating external cost pressure affecting airlines operating expenses, however it was not independently responsible for pushing airlines towards bankruptcies. Likewise, Economic recession was a major factor which was evident across all cases, where major macroeconomic situations such as September 2001 crisis, the global financial crisis of 2008 and the latest covid -19 pandemic led to significant decline in the aviation industry due to drop of passenger demand and revenue instability.

Financial leverage construct emerged as one of the most important structural factor, where high level of debts, upfront lease commitments, and other financial obligations significantly reduced the ability of airlines to absorb financial shocks and

giving no room to maintain the liquidity. Likewise, another major factor which was deteriorating the financial performance of airlines in management inefficiency. This was driven by delayed decision making, high-cost structures, labor challenges and not being capable of implementing timely corrective actions. Additionally on top of these deductive constructs, competitive pressure emerged as an inductive theme, where additional strain was planned on airlines financially due to expansion of low-cost carriers, increase in customer sensitivity and intense price competition.

As an outcome of cross case analysis, it was clear that these factors did not occur in isolation but interacted and supported each other in pushing airlines towards bankruptcy. For instance, financial leverage, management inefficiency, and competitive pressure were simultaneously present in most cases, whereas external shocks such as economic recessions and fuel price volatility further intensified these internal vulnerabilities. As a result, the outcome of RQ1 clearly indicates that the airline bankruptcies were a result of cumulative pressures of multiple factors rather than a single determinant.

For RQ2, the outcome of semi-structured interview identified six key strategic themes to build sustainable and financially resilient airlines, which are namely operational efficiency, revenue diversification, strategic decision-making, board effectiveness, debt management, and risk management systems. In addition to these deductive themes, digital capabilities and system integration emerged as a key inductive theme.

1. Operational efficiency was consistently highlighted by participants where the focus was on maintaining cost discipline, process optimization and employee ownership.

2. Revenue diversification was highlighted as an important strategy which will help to reduce dependency on passenger revenue through ancillary services, cargo operations and alliance.
3. Strategic decision making was another factor which was identified as a key factor, where timely decision making backed up with data driven informed decisions, can significantly influence an airline's ability to respond to crises.
4. To ensure transparency, creating accountability and to create alignment between the stakeholders and management, board effectiveness and governance involvement were highlighted as another key strategy.
5. To maintain financial stability, debt management was identified as a crucial strategy, which can be achieved by maintaining liquidity buffers, by avoiding excessive leverage and by adopting flexible financing methods such as leasing instead of buying wherever essential.
6. Risk management systems, which include forecasting and scenario planning, were emphasized as important for early identification of potential disruptions.
7. Additionally, digital capabilities which emerged as an inductive theme were highlighted as a key enabler for real-time decision-making, operational integration, and improved customer experience

## **6.2 Implications**

### **6.2.1 Theoretical Implications**

Strong support has been provided to the theoretical framework which was adopted in this study which are Financial Distress Theory, Agency Theory, and Resource-Based View (RBV). From the lenses of financial distress theory, the findings of the study clearly indicate that financial leverage and liquidity constraints are major contributors of

airline bankruptcy. High level of debt and financial obligations restrain airline's ability to endure external shocks, which clearly aligns with the core assumption of financial distress theory.

Likewise, management inefficiency and board effectiveness findings were supported through the Agency theory. Documentary evidence and interview findings clearly indicate that the delayed decision making, weak governance structures and no alignment between management and stakeholders significantly contribute to the financial deterioration of the airlines. Similarly, Resource-Based View (RBV) is strongly supported by the findings of RQ2. Internal capabilities such as operational efficiency, revenue diversification, digital capabilities, and risk management systems were identified as critical resources that enable airlines to build resilience and sustain competitive advantage. These findings clearly indicate that airlines with stronger internal capabilities are better positioned to withstand financial distress.

### **6.2.2 Managerial Implications**

The outcome of the study indicates major important implications which can be used by the airline management, particularly focusing in addressing the key factors identified in RQ1 through the strategic responses identified in RQ2.

1. Financial leverage was identified as one of the major contributors to airline bankruptcy through this study. This clearly indicates that airlines must follow clear debt management practices which can be achieved by maintaining liquidity buffers, avoiding high borrowing and making sure that there is financial flexibility to withstand external shocks.
2. Management inefficiency was identified as another major factor which was pushing airlines towards bankruptcy. This contributed to the deterioration of financial

conditions of airlines by delaying decision making and failing to implement timely corrective actions. This further indicates that airlines must have strong decision-making processes and should ensure effective board involvement to improve governance, responsiveness and accountability.

3. The next key area, which was very much evident across several cases and the area which airlines must focus on, is improving their operational efficiency and addressing high-cost structure. Airlines must work on controlling the cost by introducing optimized processes and by effective resource utilization which will help them to remain competitive in the highly price sensitive environment.

4. Particularly during the times of economic recession and demand fluctuations, revenue instability occurs, there comes the importance of revenue diversification strategy. Airlines, to address these unforeseen circumstances, should avoid dependencies on passenger revenue and should strategize in expanding ancillary services, cargo operations and strategic partnerships to ensure multiple sources of stable income streams.

5. Competitive pressure was an inductive theme which was identified in this study. This created intense price competition among the carriers, and due to the presence of low-cost carriers, additional financial strain was placed on their competitors. This clearly indicates that airlines must enhance both their cost efficiency and pricing strategies to remain sustainable in the market.

6. The necessity of strong risk management systems was highlighted due to external uncertainties such as fuel price volatility and economic disruptions. Airlines must implement strong forecasting tools, scenario planning and early warning mechanisms which can act as an enabler to proactively identify and respond to potential risks.

7. From strategy point of view, digital capabilities were another inductive theme which emerged as a critical enabler, where airline can make use of real time data, build fully integrated systems and advanced analytics to support faster decision-making and to improve operational performance. This strategy clearly indicates that airlines which are investing in digital transformation are in a better position compared to their competitors to manage both operational and financial challenges.

| <b>Problem/Causes</b>                                     | <b>Strategies to address these constructs</b>   |
|-----------------------------------------------------------|-------------------------------------------------|
| <b>Financial leverage</b>                                 | Debt management                                 |
| <b>Management inefficiency</b>                            | Strategic decision-making, Board effectiveness  |
| <b>Operational inefficiencies / High-cost structure</b>   | Operational efficiency                          |
| <b>Revenue instability (Economic recession)</b>           | Revenue diversification                         |
| <b>Competitive pressure</b>                               | Operational efficiency, Revenue diversification |
| <b>External shocks (Fuel price volatility, recession)</b> | Risk management systems                         |
| <b>Slow response / system gaps</b>                        | Digital capability                              |

Table 8: Mapping of Identified Causes to Strategic Responses, author made

### 6.3 Recommendations for Future

From future recommendation perspective, this study has certain limitations, which provides opportunities to explore. To start with, this study was solely focused on

U.S based airlines, which may limit generalizability of the findings, whereas future research can be aimed at expanding the scope beyond U.S region which may include different regions and business models. Likewise, this study adopted qualitative analysis, which is for RQ1, document based analysis was performed and for RQ2, semi-structured interviews were adopted. For future research, studies can adopt quantitative methods to validate the findings and to test the relationships between the constructs which will get identified.

The next limitation is from the sample size perspective, which was chosen or finalized for RQ2, which consisted of 15 aviation industry experts. While the data saturation was achieved with the sample size, future studies could include larger data sets, with more diversified sample and mostly not interviews but offline forms by using which broader perspectives can be captured. Additionally, future research can explore how advanced digital capabilities such as artificial intelligence, predictive analytics and automation can help in enhancing airlines resilience. Further studies could also investigate the long-term impact of sustainability practices and environmental factors on airline financial performance.

## **6.4 Conclusion**

This chapter summarizes the overall findings, results, implications and recommendations for future research. A clear pattern was evident that the airline bankruptcies were not driven by a single factor, however it was a combined effect of both internal and external factors such as financial leverage, management inefficiency, competitive pressure, and external economic conditions such as recession and fuel price volatility. It was clear that the financial stability was weakened over time as these factors interacted with each other and pushed airlines towards bankruptcy.

Furthermore, the outcomes from semi-structured interviews clearly indicated that these challenges are not unavoidable and can be addressed through strong internal capabilities and structured strategic responses. Operational efficiency, revenue diversification, strategic decision-making, board effectiveness, debt management, and risk management systems were consistently highlighted as critical factors in building financial resilient airlines. Additionally, digital capabilities and systems integration was one inductive theme which was repetitively highlighted by many participants which will support leadership teams and other stakeholders to take timely decisions and to improve overall operational performance.

The implications of this study in divided into two parts, which are theoretical and managerial implications, this shows that airline financial distress is a combination of multiple factors. This is further supported by both Financial Distress Theory and Agency Theory. Simultaneously, the findings clearly demonstrate that internal competencies, including operational efficiency, revenue diversification, effective governance, risk management frameworks, and digital proficiency, as explained by the Resource-Based View (RBV), can substantially reinforce airline resilience and mitigate the risk of insolvency. To conclude, airline bankruptcy is not totally unavoidable, but rather manageable through effective planning, timely decision making and strong internal capabilities. This study provides detailed understanding of both the causes and strategies which are required to build a long-term financial resilience in the aviation industry.

## APPENDIX A INTERVIEW COVER LETTER

Dear Interviewee,

I hope this message finds you well.

I am conducting a doctoral research study on strategies to address financial distress and avoid bankruptcy in the United States aviation industry. You are being invited to participate in this study based on your professional experience and expertise.

Participation involves a one-time, semi-structured interview lasting approximately 30–45 minutes, conducted at a time convenient to you. Your participation is entirely voluntary, and you may withdraw at any time without any penalty.

Please find the Participant Information Sheet and Consent Form attached for your review.

If you agree to participate, kindly review and sign the consent form and return it via email.

Should you have any questions or require clarification, please feel free to contact me.

Thank you for considering this invitation. I sincerely appreciate your time and consideration.

Kind regards,

Rahaman Sheriff

Doctoral Researcher

## APPENDIX B INFORMED CONSENT

### **STRATEGIES TO AVOID BANKRUPTCIES IN THE UNITED STATES**

#### **AVIATION INDUSTRY**

##### **PRINCIPAL INVESTIGATOR**

Rahaman Sheriff

Villa 351, Alliance Humming garden, Phase 2, Kelambakkam, Chennai - 603103

+917305599655

Rahaman@ssbm.ch

##### **PURPOSE OF STUDY**

You are being asked to take part in a research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please read the following information carefully. Please ask the researcher if there is anything that is not clear or if you need more information.

The purpose of this study is to identify the key factors that contribute to airline bankruptcies in the United States and to explore how airlines can overcome financial distress by focusing on critical success factors. Specifically, the research aims to analyze the role of organizational structure, corporate culture, strategic alliances, planning and forecasting, technology integration, marketing strategies, and outsourcing in both contributing to bankruptcy and preventing it. By examining the experiences of U.S. airlines, the study seeks to provide insights that can help industry stakeholders mitigate bankruptcy risks and promote long-term financial resilience.

##### **STUDY PROCEDURES**

The study procedures, session time and how the data will be used post this interview is mentioned below.

1. One semi-structured interview will be conducted virtually at a time convenient to the participant.
2. Each interview will last approximately 30–45 minutes and will involve open-ended 8 non-technical questions.
3. With participant permission, interviews will be audio recorded and anonymized to ensure confidentiality.
4. Interview data will be transcribed and analyzed using NVivo qualitative analysis software to identify themes.

## **RISKS**

1. The study involves minimal risk, comparable to that encountered in everyday professional conversations
2. You may decline to answer any or all questions and you may terminate your involvement at any time if you choose.

## **BENEFITS**

There will be no direct benefit to participants for taking part in this study. However, the information obtained from this research may contribute to the body of knowledge on airline financial distress and resilience by identifying effective strategies used by industry leaders to avoid bankruptcy. The findings may also benefit airline organizations, policymakers, and industry practitioners by informing governance, decision-making, and risk management practices in the aviation sector. There are no alternative procedures or courses of treatment applicable to this study.

## **CONFIDENTIALITY**

Your responses to this semi-structured interview will be used in this research, and your identity will not be disclosed in any research outputs. Every effort will be made by the researcher to preserve confidentiality, including the following measures:

- Participants will be assigned code numbers, which will be used on all research notes, transcripts, and documents.
- Interview recordings, transcripts, and any identifying information will be securely stored and accessible only to the researcher.

Participant data will be kept confidential except in cases where the researcher is legally obligated to disclose information, such as situations involving risk of harm to self or others.

## **CONTACT INFORMATION**

If you have questions at any time about this study, or you experience adverse effects as the result of participating in this study, you may contact the researcher whose contact information is provided on the first page.

## **VOLUNTARY PARTICIPATION**

Your participation in this study is voluntary. It is up to you to decide whether to take part in this study. If you decide to take part in this study, you will be asked to sign a consent form. After you sign the consent form, you are still free to withdraw at any time and without giving a reason. Withdrawing from this study will not affect the relationship you have, if any, with the researcher. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

## **CONSENT**

I have read, and I understand the provided information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of this consent form. I voluntarily agree to take part in this study.

Participant's signature

Date: DD MMM

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## APPENDIX C INTERVIEW GUIDE

All participants were assured anonymity, and no personal identifiable information was collected during the interview process. Participation was voluntary, and responses were used strictly for academic purposes. Interview consisted of 8 primary questions and couple of follow up questions as below.

| Section                                               | Interview Questions                                                                                                                                                        |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Operational Efficiency</b>                         | From your experience, which internal capabilities or operational strengths helped airlines remain stable during periods of disruption?                                     |
| <b>Strategic Decision-Making &amp; Governance</b>     | How have leadership decisions or governance practices influenced your airline's ability to manage or worsen financial distress?                                            |
| <b>Debt Management</b>                                | Which financial practices or debt-related decisions (e.g., repayment strategy, leverage adjustments, liquidity protection) have been most critical in preventing distress? |
| <b>Risk Management Systems</b>                        | Based on your experience, what early signals or financial indicators suggest that an airline is entering financial distress?                                               |
|                                                       | How effective are enterprise risk-management practices such as fuel hedging, scenario planning, or forecasting in reducing risk exposure?                                  |
| <b>Revenue Diversification</b>                        | Which revenue diversification strategies (cargo, ancillaries, loyalty programs) have meaningfully improved financial resilience?                                           |
| <b>Organizational &amp; Governance Challenges</b>     | What organizational or governance barriers prevent airlines from implementing resilience or turnaround strategies?                                                         |
| <b>Digital Capabilities &amp; Systems Integration</b> | How can technologies such as analytics or AI support better forecasting and early detection of risks in airlines?                                                          |

|                                                     |                                                                                                                                                                                        |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Probing Questions (Used Across All Sections)</b> | Can you elaborate on that?<br>Can you provide a real example?<br>Why do you think this occurs?<br>How did this impact financial performance?                                           |
| <b>Closing Question</b>                             | In your opinion, on top of these 8 questions which we have discussed, are there any other areas or strategies which airlines should work on to develop financially resilient airlines? |

Table 9: Mapping of Interview questions mapped to each theme, author made

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