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Managing Change in Flight Operations: Introducing a Centralised
Duty Fleet Manager Role at TUI's Operations Control Centre

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This thesis is submitted in partial fulfilment of the requirements for
the degree of MSc in Management

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- that all content, including primary and/or secondary data, is true to the best of my knowledge.
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Abstract

Airlines undergo continuous organisational change in response to external pressures and internal drivers, leading to mergers and acquisitions, downsizing, restructuring and efficiency programmes. However, these changes often fail to achieve their intended objective, making the governance of managing change important, particularly for high reliability organisations (HROs) where changes can compromise safety.

This study investigates the organisational restructuring and downsizing of the Flight Operations department in one of Europe's largest charter airlines, TUI Airlines, exploring the context of the change, the key hazards and TUI airlines' approach to Management of Change (MoC), using the centralisation of the Duty Fleet Manager (DFM) function at TUI's Operations Control Centre (TOCC) as a case study. A critical review of academic literature, regulatory guidance, and TUI Airlines' internal materials was undertaken to examine organisational restructuring, particularly downsizing, its drivers and consequences, and to evaluate the effectiveness of the MoC process. Primary data was also collected via semi-structured interviews with 11 participants, analysed via thematic analysis; company field observations provided additional context.

Results show that downsizing in the case study was both driven by a mix of external pressures and deliberate managerial strategy. Major risks comprised, at the organisational level, an unfavourable cost–benefit balance, increased resistance to change, and culture clash; and, at the employee level, increased workload and the emergence of a 'survivor' culture. The MoC process, specifically hazard identification, is effective overall but bureaucratic, outdated, subjective, and weak on post-implementation monitoring.

The implications for management translate into recommendations to mitigate key risks and consequences: adopt a phased and fair approach with strong involvement from low-to-mid-level managers; provide targeted training for remaining employees; and apply change-management practices alongside the

MoC. To improve the MoC itself, digitise and unify existing templates across Air Operator Certificates (AOCs) into a single, streamlined e-form.

This exploratory study provided empirical insights into a specific case study, providing value to both researchers and practitioners. However, since this research focuses on a specific case, readers should carefully consider the extent to which the findings may be applicable to other contexts.

Keywords:

Management of change, change management, hazard Identification, downsizing, organisational restructuring, risk mitigation, airlines

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List of Abbreviations

AOC	Air Operator Certificate
BLX	TUI fly Nordic
CAA	Civil Aviation Authority (UK)
DFM	Duty Fleet Manager
DMFO	Duty Manager Fleet Operations
EASA	European Union Safety Agency
ESSI	European Strategic Safety Initiative
FMEA	Failure Modes and Effects Analysis
HAZOPS	Hazard and Operability Studies
HRO	High Reliability Organisations
IATA	International Airport Transport Association
ICAO	International Civil Aviation Organisation
IOSA	IATA Operational Safety Audit
JAF	TUI fly Belgium
MoC	Management of Change
Mgmnt	Management
NPFO	Nominated Person of Flight Operations
OCC	Operations Control Centre
ODM	Operations Duty Manager
RML	Risk Mitigation Log
SMEs	Subject Matter Experts
TFL	TUI fly Netherlands
TOCC	TUI Operations Control Centre
TOM	TUI Airways, the British Arm of the TUI Airline group
TUI	TUI fly Germany

1 Introduction

Airlines, like other high-reliability organisations (HROs), undergo continual organisational change driven by macroeconomic cycles, intensifying competition, COVID-19 disruption, heightened security risks, and regulatory and technological shifts. These pressures frequently lead to mergers and acquisitions, restructuring, downsizing, and efficiency programmes. Yet, decades of scholarship suggest that only a minority of major change initiatives achieve their intended outcomes, often estimated at 30–50% in academic studies (Farias & Johnson, 2000; Balogun & Hope Hailey, 2004; Kotter, 1995). By contrast, industry surveys report even lower success rates (McKinsey, 2015), underscoring the importance for rigorous change governance.

1.1 Management of Change vs Change Management

The concepts of Management of Change (MoC) and change management are related but serve distinct purposes. MoC refers to a structured process for controlling and assessing changes in systems, procedures, or roles to ensure safety, compliance, and operational continuity (ICAO, 2018). It is particularly relevant in aviation and other high-risk industries, where technical or procedural changes must undergo risk assessment, documentation, and formal approval from regulatory authorities before implementation (EASA, 2023). In contrast, change management addresses the human and organisational aspects of implementing change initiatives. It encompasses the communication, engagement, and training activities necessary to help individuals and teams adapt to and accept new ways of working (Kotter, 2012). The former understanding of managing change is used in this thesis.

1.2 Hazard Identification within MoC

As MoC treats change as a safety-critical intervention requiring structured risk control, it places hazard identification at the centre of successful implementation. As organisational change can introduce new or amplified hazards, weaknesses in hazard identification in HROs undermine change outcomes and can compromise safety. Accordingly, regulators and industry

bodies recommend a range of techniques and data sources, such as HAZOP, structured checklists, facilitated brainstorming, event tree analysis, and failure mode and effects analysis (FMEA), alongside elicitation of local subject-matter expertise to surface foreseeable hazards in specific change contexts (CAA, 2010; ESSI, 2009; ICAO, 2018).

1.3 Background to the Internship at TUI Airlines

1.3.1 TUI Group: Five Airlines

TUI Group, a leading global tourism company headquartered in Germany, operates a collective of airlines. These include five airlines (or, Air Operator Certificates (AOCs)), which are TUI Airways (TOM), TUI fly Belgium (JAF), TUI fly Netherlands (TFL), TUI fly Germany (TUI) and TUI fly Nordic (BLX), operating a combined fleet of over 130 aircraft (TUI Group, 2025). These airlines provide scheduled and charter flights to more than 180 destinations worldwide from various bases in Europe, and are part of TUI's vertically integrated tourism business, which also encompasses hotels, cruises, and travel agencies (TUI Group, 2025).

1.3.2 TUI Airlines: Business Transformation Strategy

As TUI Airlines seek to enhance the commercialisation of their operations, achieving IATA (International Airport Transport Association) membership, requiring IOSA (IATA's Operational Safety Audit) certification, and EASA (European Union Aviation Safety Agency) oversight, is a strategic priority. To meet these regulatory standards, the organisation is transitioning from five independently operated airlines to a harmonised single-airline model. This transformation will not only ensure compliance but also position TUI Airlines to operate more efficiently and competitively in the commercial airline market. However, this transformative change entails a transitional period of organisational restructuring and downsizing, which can generate uncertainty and concerns among staff.

1.3.3 TUI Airlines’ Flight Operations: Organisational Restructuring and Downsizing

In line with TUI Airlines’ business direction, the Flight Operations department are redesigning their department to better fit with the company’s future direction and vision. In addition to reorganising TUI Airlines’ flight operations structure, the department’s headcount will be downsized by 15 personnel.

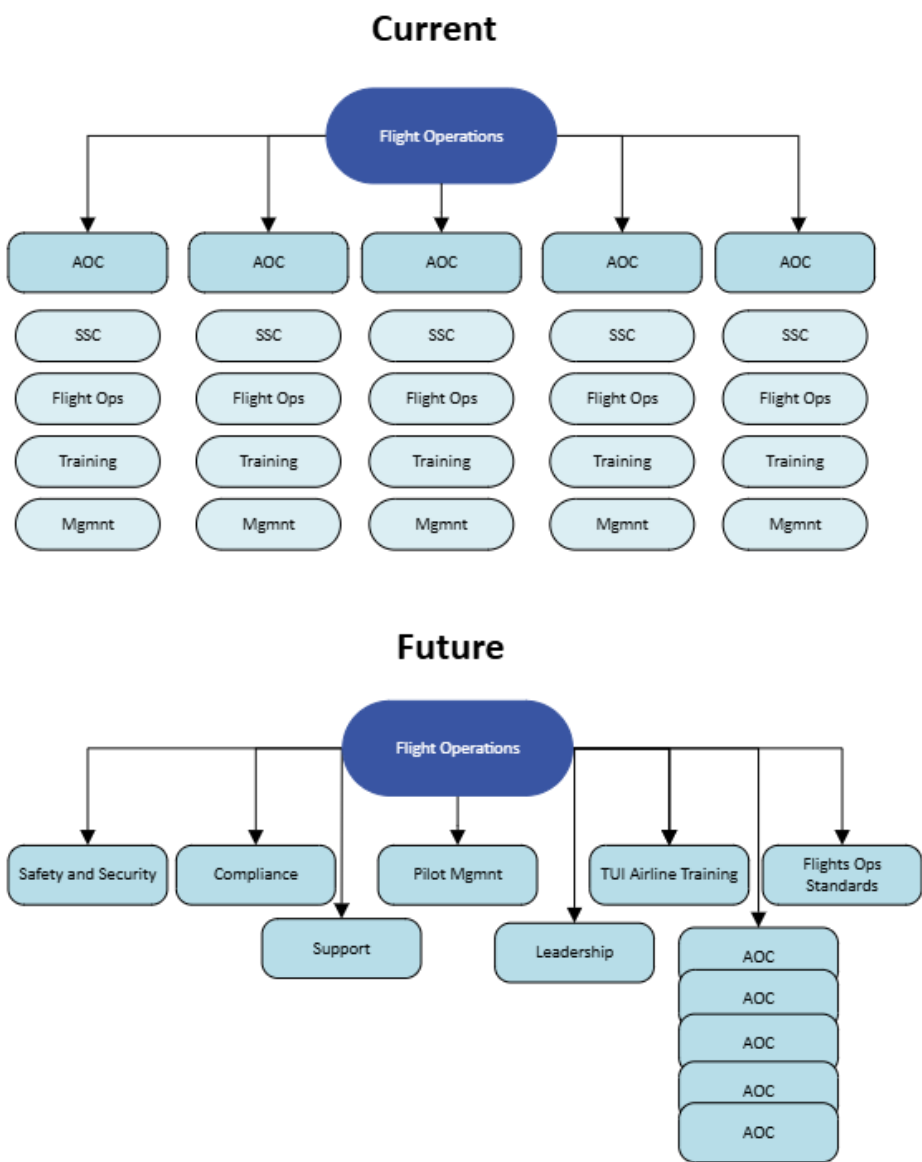


Figure 1-1 Current and Future Flight Operations Structure (Author, reproduced from TUI Airlines, 2025a)

1.3.4 Case Study: The Centralisation of the Duty Fleet Manager (DFM) in TUI's Operations Control Centre (TOCC)

1.3.4.1 Duty Fleet Manager

The DFM, also referred to as the DMFO, or, in the future, the Duty Pilot (DP), is currently a remote based duty taken on by experienced pilots in each AOC on a 24-hour basis. The primary function of the role is to provide flight operational expertise and decision-making support to the TOCC and flight crew, from the perspective of an experienced pilot, in response to operational disruptions caused by events, incidents, or accidents for their respective AOC's flight operations.

1.3.4.2 Company Project

One of the Flight Operation's restructuring projects include the assignment the author worked on during their internship; to build an implementation and training plan, which includes the initiation of a MoC process, that transitions the DFM/DMFO function across the five AOCs into a singular Duty Pilot function within the OCC, reducing the pool of Duty Pilots from 23 to 18. Figure 1-2 showcases the current and future state of the DFM/DMFO structure.

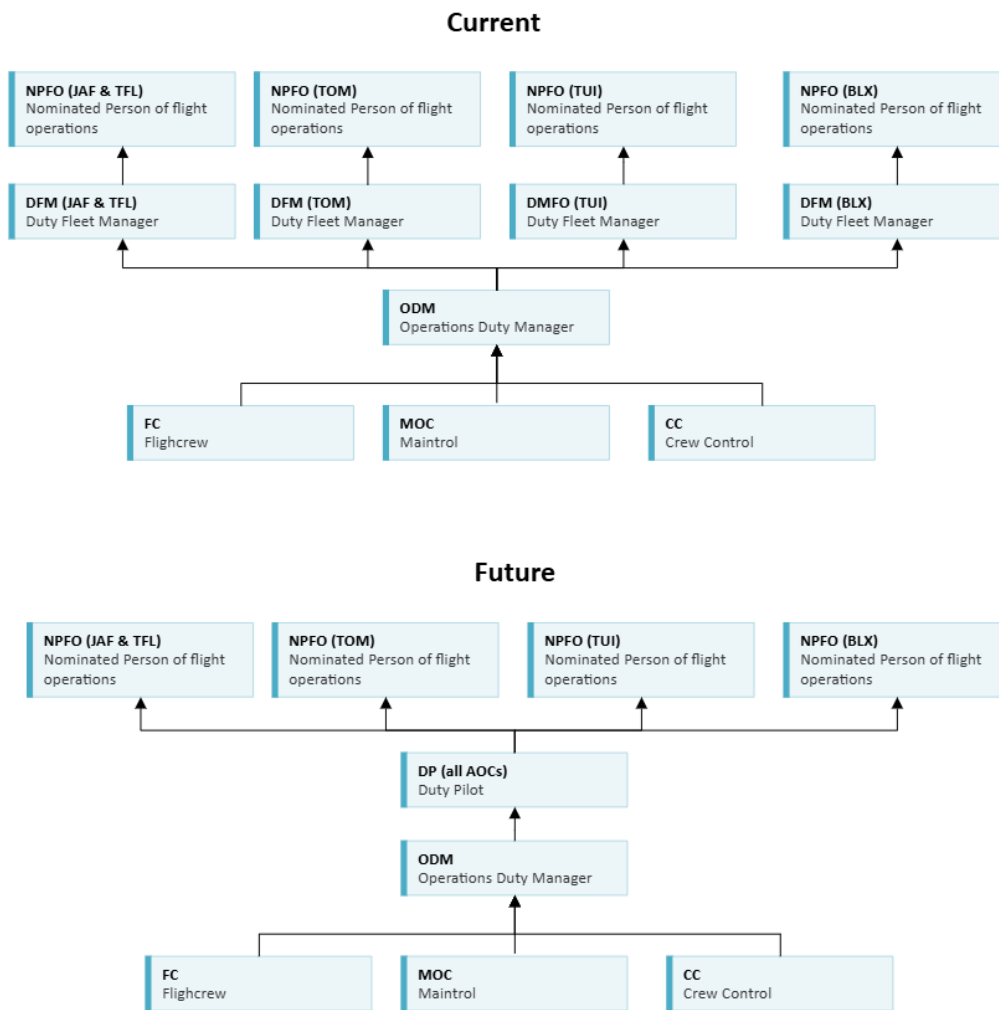


Figure 1-2 Simplified version of the Current and Future DFM/DMFO structure
(Source: Author)

1.3.4.3 Type of Change: Organisational Restructuring and Downsizing

The transition to a centralised DFM/DMFO function (Figure 1-2) entails changes to working practices, including role responsibilities, a reduction of the DFM/DMFO pool from 23 to 18, on-call staffing from 4 to 1, rostering, escalation paths, process alignment, and work location. This study examines the intentional management change associated with centralising the DFM function, with particular emphasis on (i) the work redesign of DFM activities and (ii) the reduction in the pool of Duty Pilots. In the literature, organisational restructuring is commonly defined as “any major reconfiguration of internal administrative structures...[undertaken]...as part of an intentional management change

programme” (McKinley & Scherer, 2000). Such programmes frequently entail employee downsizing and are often accompanied by work redesign (Cameron, 1998). In this study, ‘downsizing’ is taken to mean the intentional reduction of headcount with accompanying work redesigns via organisational policies and actions to achieve business objectives (Datta et al., 2010). This conceptualisation appropriately frames the change phenomenon under study.

1.4 Justification of Research

Most significant change initiatives including “organisational restructuring” and “changes in staffing levels” (ICAO, 2018), such as in the centralisation of the DFM role, trigger a formal MoC process in airlines, which, depending on the severity of the change, may require regulatory approval.

TUI Airlines’ MoC document (2025b) mirrors the emphasis found in the UK CAA’s MoC guidance (2024a, 2024b) and ICAO’s Safety Management Manual (2018). All three apply a systematic approach to assess operational and safety impacts of change initiatives, and emphasise the importance of hazard identification (CAA, 2010; ESSI, 2009; ICAO, 2018). Although, these regulatory bodies provide guidance to airlines on the approaches, tools and internal sources for identifying hazards to a localised change initiative, there is no centralised resource that explicitly outlines the different hazards and risks associated with a localised organisational restructuring and downsizing, and the correct risk mitigating actions.

In addition, the literature highlights limitations of airline’s SMS, of which MoC is a component, in managing organisational change. These include reliance on subjective risk tools, insufficient post-implementation monitoring (Malakis et al., 2023) and highly bureaucratic (Stroeve et., 2022).

1.5 Research Aims and Objectives

Accordingly, the study’s primary aim is to identify the key foreseeable hazards and their potential consequences arising from the centralisation of the DFM function at TUI Airlines, and to propose strategies for their effective mitigation.

As a secondary aim, the study examines the drivers of the organisational restructuring and downsizing to provide context for the change. In parallel, it reviews the suitability and effectiveness of TUI Airline's MoC in managing the transition.

Objectives:

1. To gather context of the change initiative, identify and synthesise the principal drivers of organisational restructuring, particularly downsizing
2. Identify the key hazards associated with organisational restructuring and downsizing in organisations via secondary and primary desk research triangulation, with specific reference to the planned centralisation of the DFM function
3. Evaluate the suitability and effectiveness of airline MoC frameworks for managing change, focusing on hazard identification processes and the performance of commonly used tools
4. To develop practical recommendations for mitigating the most significant hazards and their consequence on the planned organisational restructuring and downsizing within TUI Airlines' Flight Operations, with specific reference to the centralisation of the DFM function

2 Literature Review

This chapter first synthesises the principal drivers of organisational restructuring, particularly downsizing. It then critically evaluates the hazards associated with downsizing and their consequences. Building on this, the literature review examines the significance and effectiveness of MoC frameworks in airlines, with particular attention to hazard identification, and appraises commonly used hazard-identification tools. Finally, this Chapter highlights the key takeaways and the research gap.

2.1 Drivers for Organisational Restructuring and Downsizing

Organisational restructuring, defined by McKinley and Scherer (2000) as “any major reconfiguration of the internal administrative structure that is associated with an intentional management change program”, often results in downsizing, which is understood by some academics as an intentional event involving organisational policies and actions to reduce the number of personnel to achieve business objectives (Datta et al., 2010).

Downsizing rose to prominence in the 1980s as a widely used response to unfavourable business conditions, especially falling profits and cost-cutting imperatives aimed at restoring financial performance (Bajawa and Woodall, 2006; Robbins and Pearce, 1992; Radcliffe et al., 2001). However, subsequent literature shows that downsizing is multi-causal and not tied to a single trigger, and it can also be deployed proactively rather than purely reactively (Gandolfi & Hansson, 2011; Ryan & Macky, 1998)

Gandolfi and Hansson (2011)'s integrative framework (see Figure 2.1) comprehensively outlines the multi-causal aspects of downsizing. They cite numerous external factors from literature that drive downsizing, which include poor industry conditions, global competition, economic downturns, changes in regulatory frameworks, mergers & acquisitions and advancement in technology (Gandolfi & Hansson, 2011). Additionally, the framework also acknowledges how the firm level factors, whether reactive to external factor or proactive strategies, can instigate the management action of downsizing..

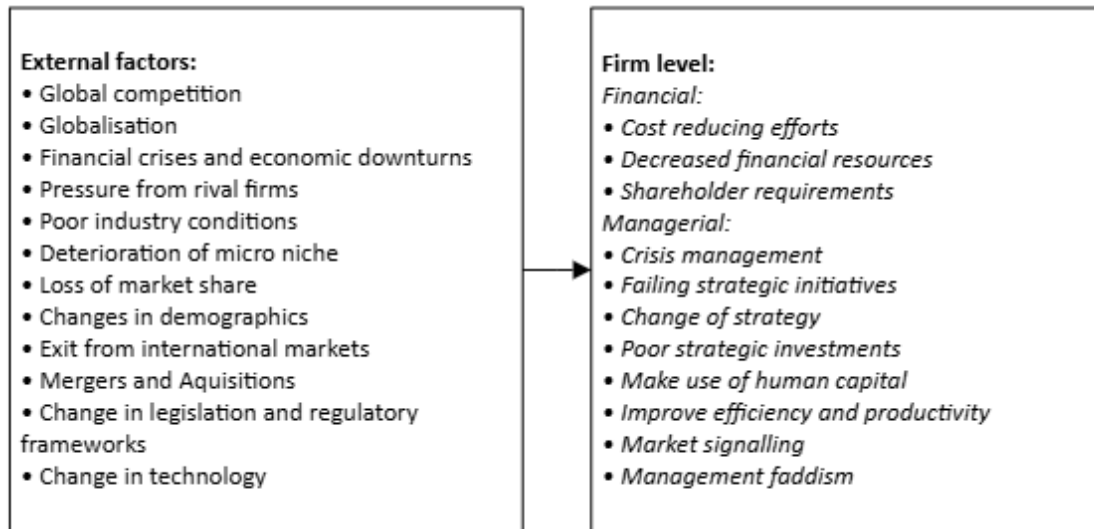


Figure 2-1 External Factors and Firm Level Drivers for Downsizing (Author, adapted from Gandolfi & Hansson, 2011)

2.2 Consequences of Downsizing

Datta et al. (2010) and Gandolfi and Hansson (2011) synthesise over 90+ empirical studies on downsizing (published up to ~2010) and classify its consequences. Datta et al. organise them at the organisational and individual levels; Gandolfi and Hansson distinguish financial, organisational, and individual categories (see Appendix A for their classification and list of consequences), with the individual level further divided among survivors (employees who remain after the downsizing), executioners (employees who execute the downsizing), and victims (employees who leave the organisation). More recent studies, including Frone & Blais (2020) extend Gandolfi and Hansson (2011)'s individual level factors, while Steel & House (2024) and Eshghi & Astvansh (2024) update their organisational and financial consequences.

2.2.1 Financial Implications of Downsizing

While some studies report favourable financial effects of downsizing (McKinley, Schick, Sun, & Tang, 1999), other studies find limited evidence between downsizing and financial outcomes from improved levels of productivity, efficiency and profitability (Steel & House, 2024; Cascio et al., 1997). Evidence on return on assets and return on equity is likewise mixed (Gandolfi & Hansson,

2011). Moreover, stock investors reactions and profitability measures, including stock price, EBITDA and profit margin, do not systematically improve with downsizing (Eshghi & Astvansh, 2024), although operating performance often appears to benefit through reductions in cost of sales and labour (Gandolfi & Hansson, 2011).

Despite a substantial body of research, downsizing shows weak and mixed evidence of overall financial effectiveness (Steel & House, 2024;), with some studies suggesting costs can exceed benefits (Gandolfi & Hansson, 2011; Cascio et al., 1997). Evidence also indicates that a gradual, participative approach, engaging middle- and lower-level managers, improves the chances of positive organisational outcomes (Cameron et al., 1991; 1993)

2.2.2 Other Organisational implications of downsizing

There is strong evidence in the literature that downsizing impacts a company's climate and culture (Cameron et al., 1991). Some of the organisational effects include the recentralisation of decision-making at senior levels and cultivating a crisis-oriented focus on immediate issues instead of long-term planning (Cameron, 1994). Other reported consequences include increased employee resistance, increased workload, declining productivity and morale, more frequent and protracted conflicts, and erosion of trust (Frone & Blais, 2020; Cutcher-Gershenfeld, 1991).

While the literature notes that organisations are often unprepared for the effects of downsizing with ill-prepared HR policies (Davenport et al., 2012), evidence suggests that investing in training and development can help mitigate lingering impacts (Nadeem, 2010). Such investment equips survivors with the knowledge, skills, and abilities needed to fill vacancies and can strengthen motivation and commitment, thereby improving productivity and morale (Nadeem, 2010).

2.2.3 Downsizing implications on Surviving Employees

Academic research indicates that the human toll of downsizing is profound and wide-ranging (Brockner, 1988; Burke and Greenglass, 2000). Literature

distinguishes people impacted by downsizing into three types, which include survivors, victims and executioners. This paper focuses merely on the impact on survivors, who experience “profound consequences” due to minimal support post-downsizing and limited resources (Macky, 2004).

According to Appelbaum et al. (1997), significant downsizing creates an unproductive “survivor” culture among those who remain within the company, which impacts the emotions, attitudes, and behaviours exhibited by employees who remained during and after the downsizing. These are well documented in the literature and include decreased motivation, job security, organisational commitment, reduced performance, and negative workplace behaviours alongside employee turnover (Gandolfi & Hansson, 2011; Frone & Blais, 2020). However, depending on how the change is managed, these negative effects can be mitigated via change management procedures such as effective communication and involvement of employees in the design of the change (Datta et al., 2010). Additionally, a fair selection process also has “a significant bearing on subsequent behavior” (Datta et al., 2010).

2.3 Hazard Identification within MoC

2.3.1 Suitability and Effectiveness of MoC for Managing Change

Most significant change initiatives including “organisational restructuring” and “changes in staffing levels” (ICAO, 2018), such as the staffing reductions and work redesigns associated with the centralisation of the DFM role, trigger a formal MoC process in airlines, which are advised to follow a defined 6-step process, as shown in Figure 2-2.



Figure 2-2 Standard 6 Step MoC System (Author, adapted from CAA, 2024b)

MoC frameworks in airlines are part of the safety management system (SMS) and are explicitly shaped by regulatory bodies. The International Civil Aviation Organization, for example, defines MoC as “a formal process to manage changes within an organization in a systematic manner, so that changes which may impact identified hazards and risk mitigation strategies are accounted for, before the implementation of such changes” (ICAO, 2018). Identifying hazards, defined by ICAO (2018) as “a condition or an object with the potential to cause or contribute to an aircraft incident or accident”, and mitigating risks within these MoC frameworks, are therefore a critical component. This is because HROs, such as airlines, operate in high-stakes, tightly coupled environments where even seemingly minor changes can trigger cascading effects if not rigorously evaluated in advance. As a result, documents provided by regulatory bodies, such as CAA’s MoC evaluation guide (2024b) and their MoC guidance template (2024a), are invaluable to airlines who are undergoing change initiatives, particularly to ensure that the changes they implement comply with regulatory audits.

While MoC processes are suitable and regulatorily required to effectively and systematically identify, assess, and mitigate risks introduced by change initiatives such as downsizing, there is little peer-reviewed literature that evaluates the effectiveness of MoC frameworks in airlines directly. The literature largely focuses on SMS limitations that bear directly on MoC. Key issues include reliance on subjective risk-assessment tools and insufficient post-

implementation monitoring (Malakis et al., 2023), and a tendency for SMS to be treated as a bureaucratic exercise (Stroeve et al., 2022).

2.3.2 Suitability and Effectiveness of Hazard Identification Processes and Tools for Managing Change

As hazard identification is a key component of the MoC, aviation regulators also provide detailed guidance on hazard taxonomies, approaches, and tools to use in their identification.

The Safety Management International Collaboration Group (SM ICG), a regulator consortium that includes EASA and the UK CAA, sets out four high-level hazard categories in its 2018 guidance: organisational, human, environmental and technical. In this study we concentrate on the first two (organisational, human), as they are most pertinent to the case context.

Regarding approaches to the identification of hazards, these are broken down into three generic methods: Historical, Brainstorming and Systematic. Whilst the Historical focuses on reviewing existing hazard logs, accident/incident reports and hazards identified from other risks assessments; Brainstorming involves planned and organised sessions encouraging teams of subject matter experts to “explore the system for potential hazards in a creative way” (CAA, 2010; 2015). It must be noted that Brainstorming can involve more formal, planned and organised sessions or informal discussions and interviews (ESSI, 2009; EASA, 2023; CAA, 2024a). The last method, the Systematic approach, looks at “a thorough sequential review of a system often using diagrams and descriptions as prompts”, which include processes such as FMEA and HAZOP (CAA, 2010).

Although many approaches and tools exist for identifying hazards (See Appendix B for a breakdown of the suitability and effectiveness of different approaches and tools for hazard identification), for maximum effectiveness Historical approaches, Brainstorming and Systematic approaches should be combined (CAA, 2010). In fact, the CAA (2010) notes that the output of the hazards from the Historical analysis should then be used in Systematic and

Brainstorming analysis to trigger further exploration, culminating in the documentation of the findings in a hazard log.

Additionally, as hazard identification cannot be guaranteed complete, organisations should monitor and review it regularly, with defined triggers at fixed intervals (ESSI, 2009; CAA, 2024b; ICAO, 2018).

2.4 Key Takeaways and Research Gap

2.4.1 Drivers of Downsizing

Review of the literature indicates that downsizing is motivated by a wide range of factors. Early work often framed it as a cost-reduction response to external pressures (Radcliffe et al., 2001), whereas other studies show that downsizing can be both a reactive response to crises and a proactive strategic choice (Ryan & Macky, 1998). Gandolfi and Hansson (2011) synthesise these perspectives, cataloguing drivers at both the environmental and firm levels, which will be used in later chapters.

2.4.2 Key Consequences of Downsizing

Academic literature on downsizing highlights the link between the reduction in number of personnel and work redesign to a wide range of hazardous consequences. These studies, up to 2010, have been grouped into three categories by Gandolfi and Hansson (2011), and more recent studies have contributed to these classifications: financial, organisational and employee level.

Although organisations often pursue downsizing for expected financial gains, evidence of consistent improvements in efficiency, productivity, or profitability is limited in the literature. However, a gradual, participative approach, engaging middle- and lower-level managers, improves the chances of positive organisational outcomes (Cameron et al., 1991; 1993).

At the organisational level, the literature suggests that downsizing, when not accompanied by adequate training, development, and HR policies, can harm organisational climate and culture, manifesting in various forms such as

increased resistance, reduced morale, and a more politicised work environment.

At the employee level, studies consistently report “survivor syndrome”: adverse behavioural and attitudinal outcomes and reduced trust and loyalty, with severity contingent on the quality of change management. For example, literature showcases that change management procedures, such as effective communication, and involving employees into designing the change, reduces the resistance to the change and results in greater acceptance (Datta et., 2010). Additionally, a fair selection process mitigates the negative behavioural effects of downsizing (Datta et., 2010).

2.4.3 Suitability and Effectiveness of MoC and Hazard Identification Approaches

The MoC 6-step process is an essential component of the SMS that is regulated by aviation bodies on how to systematically manage change, making it suitable for use on downsizing. As for its effectiveness, there is little evidence in peer-review literature discussing this in an airline context. However, evaluations of Safety Management Systems (SMS), of which MoC is a component, have criticised it as overly bureaucratic, reliant on subjective risk-assessment methods, and weak in post-implementation monitoring (Stroeve et al., 2022; Malakis et al., 2023).

Hazard-identification is also a component of the MoC, making the approaches and tools advised by regulatory bodies suitable to change initiatives such as downsizing. No single approach is recommended by the bodies, but rather a combination of approaches, with historical reviews typically initiating the process (CAA, 2010). Additionally, it is noted that hazard identification cannot be guaranteed complete without consistent monitoring and reviewing (ESSI, 2009).

2.4.4 Research Gap

As the study focuses on a highly specific case study, academic literature won't be sufficient to achieve the aims and objectives of the research. Primary data

will have to be extracted from the specific context to ensure tailored recommendations are proposed to TUI Airlines, achieving Objective 4.

Additionally, as the literature on downsizing in aviation is limited, this study will contribute to the body of empirical research on the hazards of downsizing from an airline context and provide qualitative input on the effectiveness of MoCs in managing change.

3 Methodology

This chapter outlines the research philosophy adopted and details the data collection and analysis methods used to address the objectives set out in Chapter 1.

3.1 Research Philosophy

A pragmatic research philosophy guided the data collection and analysis of this study, driven by the aim of identifying the hazards and consequences during organisational restructuring and downsizing within a specific case study, the centralisation of the DFM function. Insights drawn will be used to make recommendations on the major risks to the change initiative and what appropriate strategies to use to mitigate them. Pragmatism (Creswell & Creswell, 2018; Creswell, 2013) was chosen because it allows for methodological flexibility and is suited to applied research with real-world problem solving.

3.2 Methods of Data Collection

3.2.1 Secondary Data

3.2.1.1 Academic Papers & Regulatory Documentation

For the literature review outlined in Chapter 2, thorough research was conducted on EBSCO Host databases and Google Scholar during the summer of 2025 and ceased by 1st of September 2025, studies published after this were not used. Peer reviewed papers on organisational restructuring and downsizing were considered alongside regulatory documentation from CAA, ICAO and EASA on hazard identification and MoC frameworks in aviation.

3.2.1.2 Internal Company Documentation

To meet the report's objectives and provide contextual information to the case study, a review of internal company documentation was undertaken, specifically: (i) records on the launch of Flight Operations' organisational restructuring (TUI Airlines, 2025a), (ii) TUI Airlines' MoC template documentation (TUI Airlines, 2025b) and (iii) the risk-mitigation log for TUI fly

Belgium & TUI fly Netherlands' centralisation of the Operations Duty Manager (ODM) role in 2021 (TUI Airlines, 2021). The first set was selected for its high-level account of the restructuring's vision and rationale, and the second for outlining TUI Airlines' MoC framework. The third set served as a comparator case, given its close parallels to the project, and was used to identify potential risks and hazards.

3.2.2 Primary Data

3.2.2.1 Semi-Structured Interviews

An exploratory qualitative research approach using semi-structured interviews supplemented by internal company documentation was adopted to achieve the study's objective. The approach foregrounded participants' perspectives while avoiding forcing data into categories decided in advance. An inductive approach was adopted so that patterns and meanings could emerge in close alignment with the study's aims (Thomas, 2006).

A list of open-ended interview questions was developed as a guide for the primary data collection process (see Appendix E). The use of a semi-structured interview format enabled the researcher to address key topics relevant to the study while maintaining the flexibility to pursue follow-up questions based on participants' responses (Longhurst, 2016). The interviews averaged 30-60 minutes in length.

3.2.2.2 Sample Selection

Purposeful sampling (Etikan, 2016) was employed to obtain in-depth insights from participants who will be either directly affected by the centralisation of the Duty Fleet Manager (DFM) function or actively involved in the organisational restructuring of the flight operations department. The sample comprised of three groups: (i) subject-matter experts (SMEs) who perform the DFM role; (ii) TOCC stakeholders who work with the DFMs and will be impacted from the change; and (iii) programme leads and managers who are developing and leading the organisational restructuring of TUI Airlines' flight operations. This stratification

captured diverse perspectives on the hazards and consequences of the change initiative.

Table 3-1 Participants selected for interviews

Participant Identifier	Role	Type of Participant	Duration (mins)	Date
P1	Pilot Manager	SME	30	11/08/2025
P2	Project Manager	Programme Lead	47	12/08/2025
P3	First Officer / Fleet Operations Manager (SME)	SME	60	12/08/2025
P4	Head of Fleet (SME)	SME	38	13/08/2025
P5	HR Business Partner	Programme Lead	60	14/08/2025
P6	TOCC Analyst	TOCC	44	14/08/2025
P7	Operations Duty Manager (ODM)	TOCC	60	14/08/2025
P8	Head of Fleet (SME)	SME	56	15/08/2025
P9	Operations Manager	TOCC	45	20/08/2025
P10	Operations Duty Manager	TOCC	38	29/08/2025
P11	Accountable Manager / Captain	Programme Lead	38	18/08/2025

3.2.2.3 Company Observations

The study benefited from the researcher's access to company-level meetings, which offered additional contextual insights, including observations of the organisational restructuring launch and the project kick-off meeting. These complemented the interview and document data, which are listed in Table 3-2.

Table 3-2 Company Observations

Participant Identifier	Department	Observation	Duration (mins)	Date
PK	Flight Operations Department	Project Kick-Off: Centralisation of the DFM	2hrs	15/08/2025
OL	Flight Operations Department	Launch of Organisational Restructuring	2hrs	06/08/2025

3.3 Methods of Data Analysis

Of the interviews, all of them were conducted via Teams. The interviews were audio recorded using Teams and simultaneously on the researcher's phone as a backup. The audio files were later transcribed using Otter.AI, making sure of the accuracy of the transcriptions. Verified transcripts were then imported into NVivo to support systematic coding, memoing, and an auditable chain of evidence. The analysis employed thematic analysis (Braun & Clarke, 2006), using NVivo to organise the data set, generate codes, and produce visual outputs that supported theme development. The software assisted but did not replace the researcher's interpretive judgement (Jackson & Bazeley, 2019; Zamawe, 2015).

Thematic analysis (Braun & Clarke, 2006) was selected as the method of data analysis due to its flexibility and suitability for identifying patterns within qualitative data. It enabled a rich and nuanced understanding of participants'

perspectives. The analysis was conducted in accordance with Braun and Clarke's (2006) six-phase framework, outlined below.

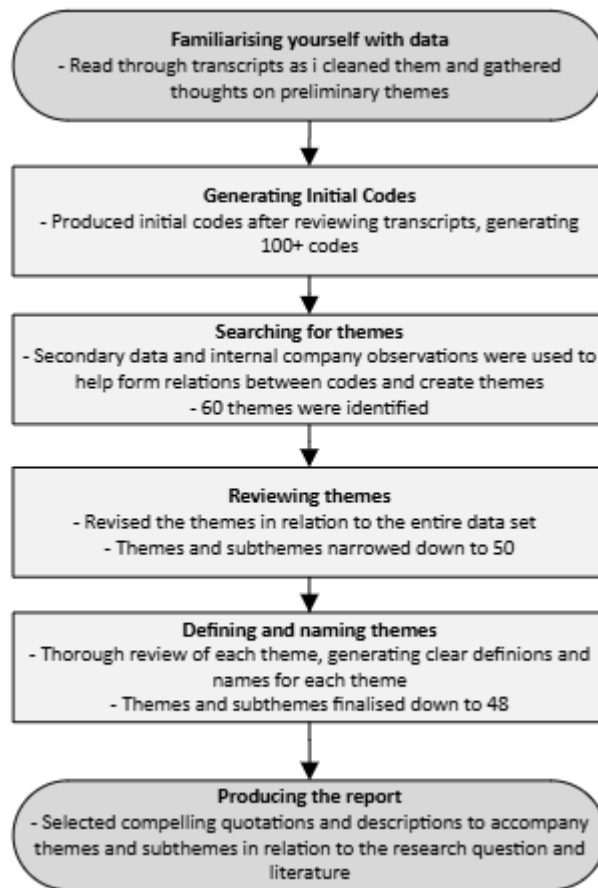


Figure 3-1 Braun Clarke's Thematic Analysis Process (Author, adapted from Braun & Clarke, 2006)

3.4 Ethical Considerations

Ethical considerations, including informed consent, participant anonymity, privacy protection, and data confidentiality, were rigorously maintained during the study (Patten & Newhart, 2017). To address these issues, a consent form (Appendix D) was prepared and signed by all participants before each interview. It guaranteed confidentiality, confirmed the voluntary nature of participation (including the right to withdraw at any time without penalty) and specified the study's purpose and the intended use of the interview data. Furthermore, all sensitive or personally identifiable information was excluded from the analysis.

3.5 Reliability, Validity and Limitations of this Methodology

Since the research was performed by one researcher, inter-code reliability, where multiple coders independently code the same data and compare results, could not be applied to test reliability and validity (Mayring, 2000). However, the researcher ensured that the reliability and validity of the analysis was strengthened by conducting code–recode checks on a subset of data to assess intra-coder consistency and by triangulating insights across different participants. Construct validity was further enhanced through purposive sampling.

Despite providing valuable empirical data, this study includes a key limitation. The findings are based on qualitative data, using interviews and company documentation. Therefore, the results are not statistically generalizable.

4 Results

The interviewers revealed that TUI Airlines' centralisation of the DFM function is 'the right thing to do ... [but] comes with a few requirements' (P11). Figure 4.1 presents a visual representation of the NVivo thematic coding structure for the major hazards and drivers of change in this case. Codes and subcodes were produced inductively and iteratively; secondary data, company documents, and field observations were used to evidence relationships among themes. The following section presents the participants' opinion on the effectiveness of MoC, and hazard identification, in airlines. Appendix F provides the full codebook, a frequency table for each theme, and illustrative quotations.

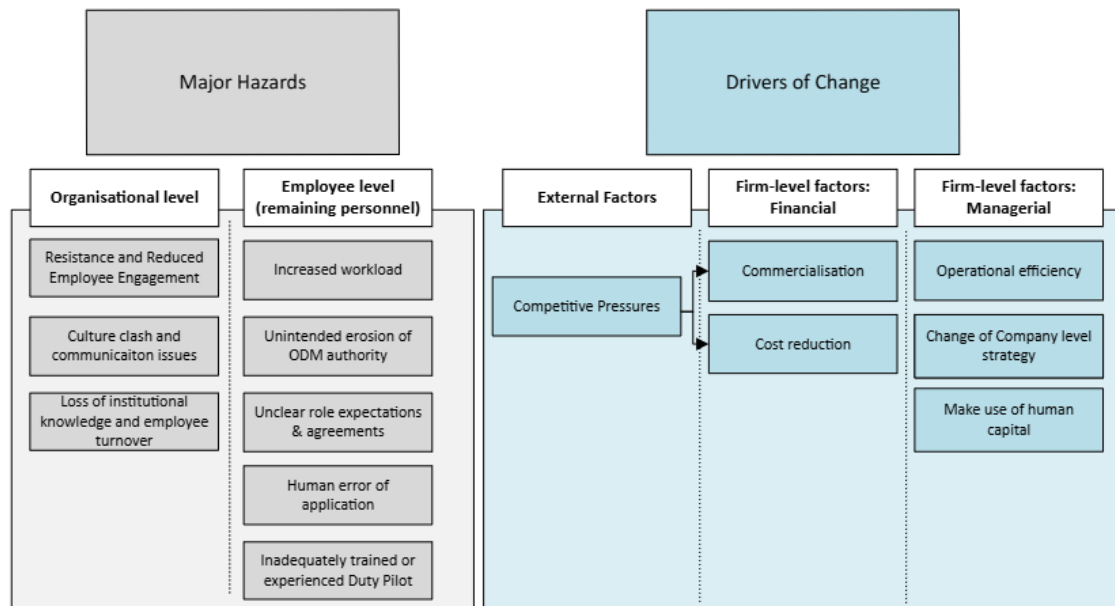


Figure 4-1 Drivers for downsizing and the most cited hazards regarding the centralization of the DFM function (Source: Author)

4.1 Drivers for Change and the aimed benefits

The main drivers for the centralisation of the DFM function are highlighted in Figure 4-1, and will now be discussed.

4.1.1 External Factors: Competitive Pressures Instigating Commercialisation and Cost-reducing efforts

External competitive pressure (P5, P11) was a key driver of organisational restructuring and downsizing within the flight operations department.

Participants cited the need to “reduce [TUI Airline’s] cost base to remain competitive” (P11, OL) and to adopt a more commercial (P2, P5, P11, OL) and independent operating model (P11, P5) to compete with easyJet and Ryanair; at present, the airline “just sell[s] all of [it[s]] seat capacity to tour operators” (P11) and relies heavily on customers wanting “package holidays” (P5).

“TUI, as a company, are making profit. TUI airline, which is obviously a kind of subsection of TUI, is not. And that’s not necessarily been a goal before, because we’ve kind of been there because we have to be there. We have to be there so that other parts of the business can make profit. Now, we want to turn ourselves into a profit centre” (P5)

4.1.2 Firm level Factors

4.1.2.1 Financial: Cost reducing effort

Most of the participants showed that cost-reducing efforts by eliminating duplication of efforts were a key driving force to this initiative with five out of eleven participants citing it as a key motive for the change initiative (P3, P7, P8, P9, P11). However, several participants questioned whether the cost-reduction agenda would materialise (P1, P3, P6, P7, P10).

4.1.2.2 Managerial

4.1.2.2.1 Change of Strategy towards a Singular and Agile TUI Airline: Centralisation and Standardisation

At the managerial level, the company’s strategic shift towards a single commercialised airline (P3, P4, P6, P8, P10, P11, OL) is driving the need across the organisation and Flight Operations to centralise resources (P4, P10, P11), standardise ways of working across the AOCs (P3, P5, P6, P8, OL), increase organisational agility of human capital (P5, P9, P11) and improve efficiency through better resource utilisation (P3, P4, P8, P9).

4.2 Major Hazards of the Centralisation of the DFM function

When asked what the major hazards are to the centralisation of the DFM/DMFO function, several key topics were identified by the interviewees, which is summarised in Figure 4-2 and will be discussed in Chapter 5.

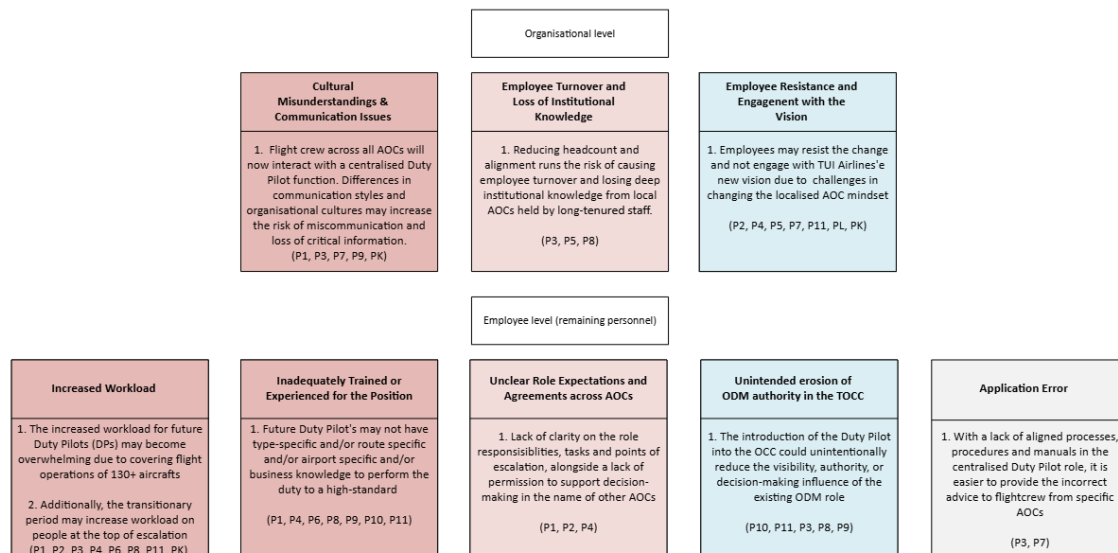


Figure 4-2 Most cited hazards regarding the centralisation of the DFM function
(Source: Author)

4.3 Effectiveness of TUI's MoC and Hazard Identification tools

Participants were asked how effective the MoC frameworks at TUI Airlines were in managing change, all eleven participants mentioned how the MoC framework is effective in supporting a change initiative if used as intended. However, the framework is often treated as tick-the-box paperwork (P2, P4, P5, P9, P11), kept in silos and not shared with all stakeholders (P8), overly subjective (P4), complex (P2, P4, P5), insufficiently robust (P3, P4), and rarely reviewed once a change has been implemented (P3, P4, P5); in many cases, it is simply bolted on at the end of a change initiative (P2, P5, P6). More specifically for TUI's MoC, participants reported duplication of efforts, as there exists five separate MoC processes across TUI's AOCs for airline-wide changes (P5, P6), outdated with contemporary ways of working (P5), and ownership by each AOC's Safety department, which creates an initial barrier to engagement with the process (P5).

The primary hazard identification tool participants used during change initiatives was the Risk Mitigation Log (RML) (P11, P3, P4, P6) within TUI Airlines' MoC process, populated by cross-business stakeholders (P1, P2, P3, P4, P5, P6, P8, P11), including subject-matter experts (P2) and independent reviewers (P2, P5). Workshops (P2), structured brainstorming (P4, P5, P11), conversations (P1, P2), and collaborative documentation (P2, P5) were reported as highly effective.

5 Discussion & Recommendations

This chapter first revisits the academic literature (Chapter 2), secondary data from company documentation, and the empirical results (Chapter 4) to address Objectives 1-3. Building on the hazards identified under Objective 2 and the assessment of MoC and hazard-identification practices at TUI Airlines under Objective 3, it develops practical recommendations to mitigate the most significant hazards associated with centralising the DFM function at TUI Airlines, thereby addressing Objective 4.

5.1 Key drivers of Organisational Restructuring and Downsizing

Based on existing literature in Chapter 2 on downsizing, TUI Airlines' company documentation (TUI Airlines, 2025a) and the primary data conducted on the centralisation of the DFM function, the motives for downsizing were compared, ensuring objective 1 was achieved. Overall, the findings align with Radcliffe et al. (2001)'s 'classical' causes of downsizing, primarily cost-reduction responses to external pressures over which management has little control (e.g., competition from easyJet and Ryanair).

Simultaneously, the findings support that downsizing in the case study is employed as a proactive strategy, rather than merely as a last-resort response to external shocks, which is consistent with Ryan and Macky (1998). The results also bolster Gandolfi and Hansson's (2011) view that downsizing is multi-causal and lacks a single trigger. Evidence includes the company's strategic shift in the case study to a single, integrated airline through centralising resources and standardising ways of working across AOCs, as well as an emphasis on making better use of human capital to enhance operational efficiency.

5.2 Consequential Hazards to the Centralisation of the DFM function

To achieve the second objective of the study, both secondary data and primary data were compared, resulting in the following discussion and major hazards identified.

5.2.1 Unfavourable Cost-benefit Balance

Although the participants were overly positive and optimistic about the financial impact that the change will bring, several participants questioned whether it would materialise in the form of greater efficiency and productivity, partly aligning with the literature's tenuous correlation between downsizing and positive financial impact (Cascio et al., 1997), highlighting the first major hazard.

5.2.2 Organisational level: Increased Resistance to Change and Culture Clash

Employee resistance, turnover, and loss of institutional knowledge emerge as key hazards in both the literature and primary data. While secondary literature notes deteriorations in organisational climate and increased conflict (Cameron et al., 1991), it gives limited attention to intra-firm cultural clashes, which the primary data observes.

Resistance to change and reluctance among remaining staff to engage with the organisational restructuring emerged as the most frequently cited organisational-level hazard, mentioned by seven participants. As one participant noted, such resistance could “single-handedly” hinder the change initiative (P2). Participants attributed resistance to entrenched legacy mindsets within AOCs, insufficient sense-making around the enterprise-wide rationale, and concern that centralisation would diminish AOCs' operational autonomy (PK).

Moreover, whilst cultural clashes were not explicitly reported in the literature, related phenomena, such as increased conflict, were noted (Gandolfi & Hansson, 2011), potentially as a by-product of cultural frictions during downsizing. In the case study, the uptick in cross-unit interactions expected

under the new model, particularly between multiple AOCs and Duty Pilots, heightens the risk of cultural clash and communication breakdowns. Flight crew from one AOC may be reluctant to engage with Duty Pilots from another, or may misunderstand or miscommunicate due to cultural differences, delaying decision-making and diminishing the effectiveness of responses to operational disruption

5.2.3 Employee Level: ‘Survivor’ Culture and Increased Workload

While the literature highlights the profound, wide-ranging human toll of downsizing on remaining employees in the shape of survivor ‘culture’ (Brockner, 1988), the case study interviews and company documents predominantly emphasised increased workload among survivors and unclear role expectations.

The unproductive ‘survivor’ culture that such change introduces, permeating in negative emotions, behaviours and attitudes during and after downsizing can undermine motivation, morale, and productivity (Appelbaum et al., 1997; Gandolfi & Hansson, 2011) and, within this case, manifest in different forms such as resistance to DFM centralisation, poorer handovers and knowledge sharing, thereby raising operational risk during the transition. This is therefore a highly significant hazard to address.

Moreover, primary data notes expanding role responsibilities, and the associated workload increases, for both Duty Pilots and their points of escalation, the NPFO, as the principal hazard. In practice, covering a fleet of more than 130 aircraft may exceed a Duty Pilot’s capacity, reducing support to the OCC and delaying assistance during major operational disruptions at TUI Airlines. This is exacerbated by the expansion of responsibilities within the role, which may outstrip current DFMs’ route-specific knowledge, local aerodrome familiarity, aircraft-type expertise, understanding of local regulations, and commercial context. This capability gap increases stress and risks reduced effectiveness in the Duty Pilot role, making it another vital hazard to tackle.

5.2.4 Recommendations to mitigate foreseeable hazards

Recommendation 1: Adhere to a Fair and Phased Participative Approach

To ensure that the financial benefits sought from this change are drawn, academic literature (Cameron et al., 1991; 1993) found that a phased, continuous downsizing with active participation from middle- and lower-level managers is more likely to yield organisational improvements than rapid, discontinuous cuts; accordingly, a phased, participative approach is recommended. Additionally, it is advised that a manpower plan is adequately prepared along with a fair selection process of individuals to perform the Duty Pilot function. This equitable and data-driven approach has proven to reduce the negative impact of downsizing (Datta et al., 2010).

Recommendation 2: Utilise Proven Change Management Methods

To address the negative impact of 'survivor' culture, which is according to Littler (2000) difficult to avoid, academic literature points at using proven to work change management approaches. For example, during restructuring at Scandinavian Airlines (SAS) (Langer & Thorup, 2006), management ran structured consultations with employees and used an integrated storytelling change-communication programme to rebuild trust and engagement, an approach shown to mitigate 'survivor' effects by increasing participation and sense-making (Datta et., 2010).

Recommendation 3: Invest in Training and Development for Remaining Employees

To ensure Duty Pilots are not overworked and remain effective, allocate resources to their training and development. This both helps staff step into vacant roles and boosts the organisation's capacity to recover after downsizing (Nadeem, 2010).

The proposed initial training includes developing a handbook with localized and centralised procedures across AOCs, delivered by current Duty Fleet Managers across the airline, during a 2-day workshop with an integrated cultural

awareness training course (made compulsory to other personnel including Flight Crew and TOCC). This is expected to accelerate upskilling and improve cross AOC teamwork. Upon completion of initial training, a shadowing phase should reinforce learning outcomes, followed by a checklist-based evaluation to verify competency and self-confidence before authorisation for independent duty.

5.3 Effectiveness of TUI Airlines' MoC framework and Hazard Identification Tools for Managing Downsizing

5.3.1 TUI Airlines' MoC

To ensure that the staffing and work-design changes arising from DFM centralisation are introduced and monitored in a controlled manner, with hazards systematically identified and mitigated, TUI Airline's MoC and Hazard Identification approach should be evaluated and, where gaps are identified, strengthened, achieving objective 3 of the study.

According to three participants (P3, P4, P5), TUI Airlines' MoC is seldom reviewed once implemented, which is consistent with prior literature indicating that post-implementation monitoring in airline MoC processes is frequently inadequate (Malakis et al., 2023). Further interview observations point to additional inefficiencies in the use of TUI Airlines' MoC, and airline MoCs more broadly, namely that they are overly complex and often reduced to a paperwork exercise, the latter point confirming Stroeve et al.'s (2022) view. An additional, case-specific insight is that the MoC at TUI Airline appears (P5) misaligned with contemporary ways of working, a gap scarcely discussed in the peer-reviewed literature on airlines' MoC. Additionally, specific to TUI Airlines, the primary findings (P5, P6) also found that operating five different MoC frameworks across its AOCs duplicates effort and makes enterprise-wide change harder to execute.

5.3.2 TUI Airlines' Approach to Hazard Identification

Regulatory bodies (CAA, 2010; ICAO, 2018; ESSI, 2009) endorse the use of combined approaches for Hazard Identification including Historical,

Brainstorming and Systematic, with Historical approaches being used at the onset. Whereas SMEs at TUI Airlines, predominantly highlighted Brainstorming, in the form of interviews, discussions, structured workshops and the use of SMEs in filling in the company's internal hazard logs called RML. Neither a historical analysis (e.g., review of risk assessments from comparable projects) nor a systematic technique (e.g., HAZOP) was referenced. While the omission of HAZOP-type methods may reflect the organisational nature of the change and limited tool suitability, the absence of a structured historical review may present a clear gap.

Moreover, interviews indicated that TUI's RML is useful for hazard identification and hazard logging, yet subjective (P4) and incomplete in its coverage of risk pathways, a pattern noted by Malakis et al. (2023) regarding airlines' reliance on subjective risk tools within MoC processes.

5.3.3 Recommendation to Improve the MoC process at TUI Airlines

Recommendation 4: Modernise and Simplify the MoC process

Digitalise, simplify and unify the MoC processes across the AOCs by replacing the numerous templated MoC files into a streamlined online form embedded in the company's SMS. This aligns with ICAO Doc 9859's (2018) SMS guidance, and mirrors industry practice where airlines, including TUI Airlines, have consolidated a lot of their documentation and manuals into digital workflows to improve traceability, timely revisions and compliance monitoring. Additionally, regulation permitting, consider light, non-competitive gamification to reduce it being used as a "paperwork exercise".

6 Limitations and Further Research

6.1 Contributions

As outlined in Chapter 1, the study's main aim was to identify the driving force and key hazards of downsizing in a specific airline case study, the centralisation of the DFM function, and provide risk-mitigating recommendations to the key foreseeable hazards. Secondly, given that staffing changes and work redesigns trigger MoC processes in airlines, the case study examined the effectiveness and suitability of the MoC, especially its hazard-identification process, to manage organisational change.

Through the achievement of Objective 1 and 2, the drivers of and key hazards for downsizing in the case study was compared to academic literature. Notably, the findings revealed that downsizing in the case study was both driven by a mix of external pressures and deliberate managerial strategy. As for the major hazards, at the organisational level, it included an unfavourable cost–benefit balance, increased resistance to change, and culture clash; and, at the employee level, increased workload and the emergence of a 'survivor' culture. Additionally, a preliminary review of the MoC process at TUI Airlines reveals that although it is effective, it is outdated, bureaucratic, subjective and weak on post-implementation monitoring.

Thanks to the findings collected, risk-mitigation recommendations and a proposal to enhance TUI Airlines' MoC were developed, including: adopt a phased and fair approach to downsizing with strong involvement from low-to-mid-level managers; provide targeted training for remaining employees; and apply change-management practices alongside the MoC. To improve the MoC itself, digitise and unify existing templates across the airlines into a single, streamlined e-form.

Drawing on secondary literature and an in-depth case study of TUI Airlines, this study contributes empirical data to the downsizing literature in airline contexts, and evaluates MoC practices, remaining consistent with prior research yet identifying misalignments with contemporary work practices

6.2 Limitations of the Work

Despite the value that this study provides to TUI Airlines and to other researchers, certain limitations are unavoidable, particularly due to the empirical nature of the study.

Firstly, the sample of 11 participants, though satisfactory for gathering insights for exploratory qualitative research, is not sufficient for wider generalisations of the results. Gathering the perspective from more participants, and more subject experts within TUI, may have further reinforced the validity of the study.

Secondly, the findings are based on a case study, meaning that the results are specific to a particular context. Therefore, if the same research were to be conducted in another context, the results may vary. Consequently, it must be advised that the findings drawn in this research are questioned before extrapolating it to other contexts.

6.3 Recommendations for Further Research

Future research should further analyse and assess the recommended mitigating actions and their effectiveness. Regarding MoC, this study provides managerial recommendations on enhancing TUI's MoC, but their generalisability is constrained by the single-case design and context-specific factors. Due to the limited academic research on the effectiveness of MoCs in managing change in airlines, more research should endeavour to fill this gap.

References

- Appelbaum, S. H., Delage, C., Labib, N., & Gault, G. (1997). The survivor syndrome: aftermath of downsizing. *Career Development International*, 2(6), 278–286. <https://doi.org/10.1108/13620439710178639>
- Bajawa, A., & Woodall, J. (2006). Equal opportunity and diversity management meet downsizing: A case study in the UK airline industry. *Employee Relations*, 28(1), 46–61. <https://doi.org/10.1108/01425450610633055>
- Balogun, J., & Hope Hailey, V. (2004). *Exploring strategic change*; Harlow, Etc., Financial Times Prentice Hall.
- Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brockner, J., Greenberg, J., & Grover, S. (1988). The impact of layoffs on survivors: Insights from interpersonal and organizational justice theory. In *Advances in Applied Social Psychology: Business Settings* (pp. 45–75). Hillsdale.
- Bruce, P. J. (2016). *Understanding decision-making processes in airline operations control*. Taylor & Francis Ltd.
- Bruch, H., Gerber, P., & Maier, V. (2007). Strategic change decisions: doing the right change right. *Journal of Change Management*, 5(1), 97–107. <https://doi.org/10.1080/14697010500067390>
- Bruton, G. D., Keels, J. K., & Shook, C. L. (1996). Downsizing the firm: Answering the strategic questions. *Academy of Management Perspectives*, 10(2), 38–45. <https://doi.org/10.5465/ame.1996.9606161553>
- Burke, R. J., & Greenglass, E. R. (2000). Organizational restructuring: Identifying effective hospital downsizing processes. In *The Organization in Crisis* (pp. 284–303). MA: Blackwell Publishers.

- CAA. (2010). Guidance on the Conduct of Hazard Identification, Risk Assessment and the Production of Safety Cases. In *www.caa.co.uk* (pp. 1–104). Civil Aviation Authority.
<https://www.caa.co.uk/publication/download/13108#page=40.09>
- CAA. (2015). Safety Management Systems (SMS) guidance for organisationsCAP 795. In *caa.co.uk* (pp. 1–22). Civil Aviation Authority,.
<https://www.caa.co.uk/publication/download/15068#page=14.51>
- CAA. (2024a). Management of Change – Guidance Template V1.0. In CAA (pp. 1–3). <https://www.caa.co.uk/media/a0xdtxum/moc-guidance-template-20240819.docx>
- CAA. (2024b). Management of Change Evaluation Guide. In CAA (pp. 1–16). <https://www.caa.co.uk/media/4kkfyntz/moc-evaluation-guide-2024.docx>
- Cameron, K. S. (1994). Strategies for successful organizational downsizing. *Human Resource Management*, 33(2), 189–211.
<https://doi.org/10.1002/hrm.3930330204>
- Cameron, K. S., Freeman, S. J., & Mishra, A. K. (1991). Best practices in white-collar downsizing: managing contradictions. *Academy of Management Perspectives*, 5(3), 57–73. <https://doi.org/10.5465/ame.1991.4274469>
- Campion, M. A., Mumford, T. V., Morgeson, F. P., & Nahrgang, J. D. (2005). Work redesign: Eight obstacles and opportunities. *Human Resource Management*, 44(4), 367–390. <https://doi.org/10.1002/hrm.20080>
- Cascio, W. F., Young, C. E., & Morris, J. R. (1997). Financial consequences of employment-change decisions in major u.s. corporations. *Academy of Management Journal*, 40(5), 1175–1189. <https://doi.org/10.2307/256931>
- Creswell, J. W. (2013). *Qualitative inquiry and research design choosing among five approaches*. (3rd ed.). Sage.

- Cutcher-Gershenfeld, J. (1991). The Impact on Economic Performance of a Transformation in Workplace Relations. *ILR Review*, 44(2), 241–260.
<https://doi.org/10.1177/001979399104400204>
- Datta, D. K., Guthrie, J. P., Basuil, D., & Pandey, A. (2010). Causes and Effects of Employee Downsizing: A Review and Synthesis. *Journal of Management*, 36(1), 281–348. <https://doi.org/10.1177/0149206309346735>
- Davenport, J. B., Gandolfi, F., Renz, L. M., & Hansson, M. (2012). Post-downsizing implications and consequences: A global perspective. In *Downsizing - Is less still more?* Cambridge University Press.
- EASA. (2023). Management System Assessment Tool. In EASA. EASA.
https://www.easa.europa.eu/sites/default/files/dfu/EASA_MSAT__v2.0_Sep_2023.pdf?utm_source=chatgpt.com#page=5.09
- Errida, A., & Lotfi, B. (2021). The Determinants of Organizational Change Management success: Literature Review and Case Study. *International Journal of Engineering Business Management*, 13(1), 1–15. Sagepub.
<https://doi.org/10.1177/18479790211016273>
- Eshghi, K., & Astvansh, V. (2024). Stock Investors' Reaction to Layoff Announcements: A Meta-analysis. *SSRN Electronic Journal*, 34(3).
<https://doi.org/10.2139/ssrn.4578779>
- ESSI. (2009). *Guidance on Hazard Identification* (pp. 1–20). ESSI / ECAST.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Ewenstein, B., Smith, W., & Sologar, A. (2015, July 1). *Changing change management*. McKinsey & Company. <https://www.mckinsey.com/featured-insights/leadership/changing-change-management>

- Farias, G., & Johnson, H. (2000). Organizational development and change management: setting the record straight. *The Journal of Applied Behavioral Science*, 36(3), 376–379.
- Freeman, S. J., & Cameron, K. S. (1993). Organizational Downsizing: A Convergence and Reorientation Framework. *Organization Science*, 4(1), 10–29. <https://doi.org/10.1287/orsc.4.1.10>
- Frone, M. R., & Blais, A.-R. (2020). Organizational Downsizing, Work Conditions, and Employee Outcomes: Identifying Targets for Workplace Intervention among Survivors. *International Journal of Environmental Research and Public Health*, 17(3), 719. <https://doi.org/10.3390/ijerph17030719>
- Gandolfi, F., & Hansson, M. (2011). Causes and consequences of downsizing: Towards an integrative framework. *Journal of Management & Organization*, 17(04), 498–521. <https://doi.org/10.1017/s1833367200001413>
- Gandolfi, F., & Hansson, M. (2015). A global perspective on the non - financial consequences of downsizing. *Review of International Comparative Management*, 16(2), 185–204.
- Hackman, J. R. (1980). Work redesign and motivation. *Professional Psychology*, 11(3), 445–455. <https://doi.org/10.1037//0735-7028.11.3.445>
- Heifetz, R. A. (1994). *Leadership without Easy Answers*. Harvard University Press.
- IATA. (2023). *Management of change basics*. https://www.icao.int/ESAF/Documents/meetings/2023/AFI%20FRA%20Risk%20Assesment%2027%20Feb%20-6%20March%202023/IATA_AFI%20FRA%20Risk%20Assessment%20Workshop.pdf#page=10.00
- ICAO. (2018). Safety Management Manual. In *caa international* (pp. 1–170). ICAO. https://caainternational.com/wp-content/uploads/2018/05/9859_unedited_en.pdf#page=25.12. Doc 9859.

- Jackson, K., & Bazeley, P. (2019). *Qualitative data analysis with NVivo* (3rd ed.). Sage Publications.
- Jerab, D. A., & Mabrouk, T. (2023, September 26). *Strategies for Effective Organizational Restructuring: A Comprehensive Guide*. Social Science Research Network. <https://doi.org/10.2139/ssrn.4584665>
- Kotter, J. (1995). Leading Change: Why Transformation Efforts Fail. *Harvard Business Review*, 73(2), 59–67.
- Kotter, J. P. (2012). *Leading Change*. Harvard Business School Press.
- Langer, R., & Thorup, S. (2006). Building trust in times of crisis. *Corporate Communications: An International Journal*, 11(4), 371–390. <https://doi.org/10.1108/13563280610713851>
- Lauer, T. (2021). *Change management fundamentals and success factors*. Berlin [Heidelberg] Springer.
- Lengnick-Hall, C. A., & Lengnick-Hall, M. L. (1988). Strategic Human Resources Management: A Review of the Literature and a Proposed Typology. *The Academy of Management Review*, 13(3), 454–470. <https://doi.org/10.2307/258092>
- Little, C. R. (2000). Comparing the downsizing experiences of three countries: A restructuring cycle? In *The Organization in Crisis*. (pp. 58–77). Blackwell Publishers.
- Lofquist, E. A. (2011). Doomed to Fail: A Case Study of Change Implementation Collapse In the Norwegian Civil Aviation Industry. *Journal of Change Management*, 11(2), 223–243. <https://doi.org/10.1080/14697017.2010.527853>
- Mackay, K. (2000). Organisational downsizing and redundancies: The New Zealand worker's experience. *Journal of Employment Relations*, 29(1), 63–87.
- Malakis, S., Kontogiannis, T., & Smoker, A. (2023). A pragmatic approach to the limitations of safety management systems in aviation. *Safety Science*, 166, 106215. <https://doi.org/10.1016/j.ssci.2023.106215>

McKinley, W., & Scherer, A. G. (2000). Some Unanticipated Consequences of Organizational Restructuring. *The Academy of Management Review*, 25(4), 735. <https://doi.org/10.2307/259202>

Mckinley, W., Schick, A. G., Sun, H.-L., & Tang, A. P. (1999). The Financial Environment of Layoffs: A Descriptive Study. *전략경영연구*, 2(1), 121–145.

Nadeem, M. (2010). Role of Training in Determining the Employee Corporate Behavior with Respect to Organizational Productivity: Developing and Proposing a Conceptual Model. *International Journal of Business and Management*, 5(12). <https://doi.org/10.5539/ijbm.v5n12p206>

Patten, M., & Newhart, M. (2017). Chapter 11: Ethical Principles in Research. In *Understanding Research Methods: An Overview of the Essentials*. Routledge.

Radcliffe, V. S., Campbell, D. R., & Fogarty, T. J. (2001). Exploring Downsizing: A Case Study on the Use of Accounting Information. *Journal of Management Accounting Research*, 13(1), 131–157. <https://doi.org/10.2308/jmar.2001.13.1.131>

Ryan, L., & Macky, K. A. (1998). Downsizing Organizations: Uses, Outcomes and Strategies. *Asia Pacific Journal of Human Resources*, 36(2), 29–45. <https://doi.org/10.1177/103841119803600204>

SM ICG. (2010). *Development of a Common Taxonomy for Hazards*. <https://skybrary.aero/sites/default/files/bookshelf/1779.pdf>

SM ICG. (2018). *Hazard Taxonomy Examples*. <https://skybrary.aero/sites/default/files/bookshelf/4623.pdf>

Steel, P., & House, A. (2024). Short-term pain for long-term gain? A longitudinal meta-analysis of downsizing-financial performance relationships. *Frontiers in Behavioral Economics*, 3(1237750). <https://doi.org/10.3389/frbhe.2024.1237750>

Stroeve, S., Smeltink, J., & Kirwan, B. (2022). Assessing and Advancing Safety Management in Aviation. *Safety*, 8(2), 20. <https://doi.org/10.3390/safety8020020>

Thomas, D. R. (2006). A General Inductive Approach for Analyzing Qualitative Evaluation Data. *American Journal of Evaluation*, 27(2), 237–246.

<https://doi.org/10.1177/1098214005283748>

TUI Airlines. (2021). *JAF & TFL Risk Mitigation Log Centralisation of the ODM function*.

TUI Airlines. (2025a). *Flight Operations Briefing - New Organisational Design Proposal BE/NE/UK*.

TUI Airlines. (2025b). *MOC template - June 2025*.

TUI Group. (2025). *Markets + Airline TUI Airline*. Tuigroup.com.

<https://www.tuigroup.com/en/about-us/airline>

Yin, R. K. (2018). *Case Study Research and Applications: Design and Methods* (6th ed.). SAGE Publications.

Zamawe, F. C. (2015). The Implication of Using NVivo Software in Qualitative Data Analysis: Evidence-Based Reflections. *Malawi Medical Journal*, 27(1), 13–15. <https://doi.org/10.4314/mmj.v27i1.4>

Appendices

Appendix A Gandolfi and Hansson's (2011) Classification and List of Consequences

Table 7-1 summarises Gandolfi and Hansson's (2011) classification and lists representative consequences. Arrows indicate direction of association only (↑ positive; ↓ negative). To bound the scope, the discussion that follows focuses on financial and organisational impacts and on individual outcomes for survivors.

Table 6-1 Typical Consequences & Hazards of Organisational Downsizing
(Reproduced from Gandolfi & Hansson, 2011)

Financial	Organisational	Human: Survivors	Human: Executioners	Human: victims
Return on Assets (ROA) ↓	Innovativeness ↓	Career consciousness ↓	Stress ↑	Stress ↑
Return on Equity (ROE) ↓	Risk aversion ↑	Organizational involvement ↓	Health ↓	Health ↓
Profitability ↓/↑	Politicized climate ↑	Organizational commitment ↓	Guilt ↑	Self-esteem ↓
Profit margin ↓/↑	Productivity ↓	Level of work quality ↓	Self-esteem ↓	Helplessness ↑
EBDIT margin ↓/↑	Morale ↓	Guilt ↑	Helplessness ↑	Anxiety ↑
Sales ↑	Number of conflicts ↑	Level of anger ↑	Anxiety ↑	Earning power ↓
Operating performance ↑	Speed of conflict ↑	Level of arousal ↑	Earning power ↓	Cynicism ↑
Cost of sales ↓	Individualisation ↑	Stress ↑	Motivation ↓	Uncertainty ↑
R&D expenditures ↓	Level of teamwork ↓	Anxiety ↑	Propensity to leave ↑	Level of commitment ↓
Labor costs ↓	Employee turnover ↑	Relief ↑	Cynicism ↑	Loyalty ↓
Market-to-book ratio -	Resistance to change ↑	Job insecurity ↑	Uncertainty ↑	
Stock-market price (short run) ↑	Distrust towards management ↑	Job satisfaction ↓	Level of commitment ↓	
Stock-market price (long run) -/↓	Levels of product/service quality ↓	Motivation ↓	Loyalty ↓	
	Level of learning ↓	Propensity to leave ↑		
	Competence level in the organisation ↓	Resistance to change ↑		
		Number of conflicts ↑		
		Absenteeism ↑		
		Risk taking ↓		
		Loyalty ↓		
		Distrust towards management ↑		

Appendix B Hazard Identification Approaches and Tools

See the table below for a breakdown of the suitability and effectiveness of different approaches and tools for hazard identification.

Table 6-2 Non-exhaustive List of Hazard Identification Approaches and Tools
(Reproduced from ESSI, 2009; CAA, 2010; ICAO, 2018; EASA, 2023)

Tool	Best Use Case	Pros	Cons
Historical approach (data-driven)			
Checklists created from Hazard Logs, Accident / Incident reports, audits, and other Risk assessments	Early project phase and sustain controls	Used by non-system experts, captures a wide range of historical hazards and ensures more obvious problems are not overlooked	Transferability risk, stale data, overfitting to history, inhibit imagination in the hazards identification process and miss hazards not previously seen
Brainstorming (qualitative)			
Brainstorming	Early-stage, creative exploration	Quick, easy and great at identifying new hazards from changes	Unstructured and not necessarily comprehensive and depends on expertise
SWIFT	Facilitated brainstorming	More efficient and less time consuming, systematic technique compared to HAZOP	Relies heavily on expertise and careful thought needs to be taken in the preparation
Systematic			
HAZOP	Detailed technical / procedural review	Structured, rigorous, and involves interaction from various SMEs	Requires considerable amount of preparation and can prevent imaginative thinking
FMEA	Equipment / system failure analysis	Precise failure mapping	Only considers hazard from single point of failure, time consuming and expensive

Appendix C Ethical approval letter



8 August 2025

Dear Mr Bagaini ,

Reference: CURES/26249/2025

Project ID: 29528

Title: Managing Change and Mitigating Risks in Airline Flight Operations: Introducing the Duty Pilot Role in TUI's OCC

Thank you for your application to the Cranfield University Research Ethics System (CURES).

We are pleased to inform you your CURES application, reference CURES/26249/2025 has been reviewed. You may now proceed with the research activities you have sought approval for.

If you have any queries, please contact CURES Support.

We wish you every success with your project.

Regards,

CURES Team

Appendix D Informed Consent Form

D.1 Appendix section (use Heading 8)

Informed consent form

Title of the project:	Managing Change in Flight Operations: Introducing a Centralised Duty Fleet Manager Role at TUI's Operations Control Centre
Name of the researcher:	Matteo Bagaini
Researcher's contact details:	<ul style="list-style-type: none">Email: Matteo.bagaini@cranfield.ac.ukPhone number:
Participant number:	
Date:	

Part 1: General information

- I confirm that I have been informed about this research project and I agree to take part.
- I understand that all personal information I provide will be treated with confidence and my name will not be used in any report, publication or presentation.
- I understand that I am sharing my personal point of view and am speaking for myself, not for the company I am working at.
- I have been provided with a participant number as shown above. The researcher will record data against my participant number instead of recording my name. The file linking my name to my participant number will be accessible only to the main researchers and will be securely destroyed after twelve months.
- I understand that I can withdraw from this project at any stage by informing a member of the research team, for whom contact details have been provided. I also understand that I can withdraw my data for a period of up to twelve months from today, as after this time it will not be possible to identify my individual data from the aggregated results as explained in point 4.

- I understand that the data I provide will be used by Cranfield University for the purpose of research. The data will be stored on the University's network that can only be accessed by authorised users, in line with UK Data Protection Act 2018.
- Interviews will be recorded and securely stored on the Cranfield University network as audio files. These audio files will be securely deleted as soon as they are no longer required. The recordings will be transcribed and saved as text files. These files (and any backups) will also be securely deleted as soon as they are no longer required.
- Anonymised transcripts will be created, by removing or replacing identifiers such as name, age, and location. These anonymised transcripts may be quoted from or published in full, in support of findings (e.g. in journal articles, conference papers).

Part 2: Consent

- I am happy for my anonymised transcript to be used
- An analytical software will be used to aggregate the results of the research and every reasonable step will be taken to anonymise the data. I understand that the aggregated data will be published in support of the research findings.

I confirm that I have read and understand the information provided on this form and give my consent to taking part in this research.

Participant's signature:		Date:	
Participant's name:			
Researcher's signature:		Date:	

One copy of this form must be given to the participant and one copy held by the researcher.

Appendix E Interview Questions

The following questions are meant to be a guide. The actual questions can differ and will be adjusted according to the response given by the interviewee(s).

	<u>Questions</u>	<u>Aim</u>
Introduction	<ul style="list-style-type: none"> • Could you elaborate your professional background and role in the company? • How long have you worked in the industry / company? • How often do you interact or take on the DFM/DMFO duty? Or, how much do you know about the DFM/DMFO role? 	To build rapport with the interviewee
Pain Points	<ul style="list-style-type: none"> • What are some of the issues with the current DFM/DMFO role and structure? 	To understand the dissatisfaction with the current role structure and role
Personal View of the Change	<ul style="list-style-type: none"> • What do you personally think about the transition to a centralised DFM function? • What are the key drivers of this change? And why do you think this project is being implemented? • Is the MoC framework used by airlines effective in managing operational changes such as the centralisation of the DFM? 	To explore the drive and awareness for the initiative alongside the advantages of MoC frameworks used in change initiatives within airline operations
Personal view: Benefits	<ul style="list-style-type: none"> • Do you see the centralisation of the DFM/DMFO role as beneficial to TUI Airlines? If "yes" or "no", in what way and why? 	To understand the potential benefits that the initiative can bring
General Risks	<ul style="list-style-type: none"> • What are the major risks and challenges that you see this role restructuring and reduction in number of DFM/DMFOs will create within Flight Operations? 	To understand the risks and challenges that may be encountered when

	Particularly, to the remaining DFMs?	restructuring an operational role within aviation
Specific Questions Regarding the Hazards and Risks to the Change	<ul style="list-style-type: none"> Specifically, what are the major risks in reducing the number of DFM/DMFOs from 4 to 1? What are your concerns in moving the DFM/DMFO role from a remote position to an in-person role? What risks do you see in having the DFM/DMFO role being responsible for more of the flight operations across the AOCs? What risks can you see in aligning the various procedures followed by the different DFM/DMFO roles? 	To understand the specific risks and challenges that may be encountered when restructuring an operational role within airline operations
Tools / frameworks	<ul style="list-style-type: none"> What tools or frameworks are the most effective in identifying Hazards and/or risks? 	Assessing the most adequate Hazard identification tools within airlines
Monitoring / control measures of the risks	<ul style="list-style-type: none"> How can risks be effectively controlled / monitored once the change initiative has been implemented? What are the most effective ways to control the risks that this change initiative brings? 	Assessing the most adequate methods for controlling and monitoring operational / role changes

Appendix F Codebook

Name	Description	Files	References
1. Drivers of Change		10	42
1.1 Change of Company Strategy (firm-level)	"The new organization is an enabler for the TUI strategy, where the TUI airline has a more independent position than it has today" (P9). "It's part of a general process to move towards being one airline, which is good, but it's challenging" (P3).	7	18
1.1.2 Centralisation	"It is happening now because in the new OD, that is something I think also in our kickoff meeting, not everyone was aware of or grasping the magnitude of it, the AOCs won't have sufficient resources anymore to do the DFM role themselves, individually. So, the only way we can do the duty pilot role is if we centralize our resources" (P11).	5	6
1.1.3 Standardisation	"I believe that it will standardize our operation, make us more consistent, make us more like one airline, which is what we're trying to do" (P6)	5	6
1.2 Make use of human capital (firm-level, managerial)	""We need to make sure that how we are working is effective and flexible...We need to share resources. We need to make sure that how we are working is the best way of working" (P5).	3	3
1.3 Commercialisation (firm-level, financial)	"The wider Initiative, or the wider goal, is to make tui airline a profit center in itself. So, at the moment, we're kind of a service provider for the tour operator, which basically means that we don't generate loads of money ourselves. So, we want to commercialize and become a profit center" (P5).	4	6
1.4 Competitive Pressures (external)	"I think we have to move to this centralized model so we can be competitive, so we can be more flexible" (P5).	2	3
1.5 Cost reduction (firm-level, financial)	"So what's the driving force? I would imagine partly there is an initial calculation that this will potentially save costs" (P3)	5	6
1.6 Operational Efficiency (firm-level, managerial)	"So, I think the key drive for that is becoming more efficient, taking those barriers out of the way, making decisions a lot quicker" (P9)	4	6
2. Effectiveness of MoC	"I think we have very few examples of management exchange over the entire airline. So, we've been doing them on an AOC basis, or inter AOC basis, but not as a whole airline...So, from a TfL perspective, we've been using MOCs	10	12

	and RMLs for two or three years, and we found in most cases they are highly effective" (P3).		
2.1 Bolted on at the End	"However, I find in a lot of ways, much like most governance and like I say, it's not specific to TUI or airlines, these governance processes, are seen as things you have to do, and therefore are just bolted on at the end" (P2).	3	3
2.2 Complex	"This is quite a complex method. It's very detailed and very elaborate and very effective when it is used properly, but you need to ensure that everybody takes on that methodology and is very well trained in it as well" (P4).	3	3
2.3 Not effective if Siloed	"I think it is effective as long as it is shared with the stakeholders. I think it isn't effective if it's kept within a silo" (P8).	1	1
2.4 Not foolproof	"But, it's never a foolproof process, because there's always risks that come up that would fail to be identified or have been discovered in the application" (P3).	2	2
2.5 Paperwork Exercise	"It's a useful tool to help facilitate that brainstorming and thinking about things that you probably haven't thought about before. Equally, it's admin, it's, a boring piece of work that no one wants to do" (P5).	5	5
2.6 Reviewing MoC Takes Up Discipline	"What I usually see or from experience, is that the initial setup of a risk mitigation log is nicely performed, but then the follow up usually takes a lot more discipline to ensure that it's regularly reviewed and that you stick to the actions or the risks that you identified. That's one of the risks that I see for the management of change exercise" (P3).	3	3
2.7 Subjective	"And, maybe, something else is that the risk assessment itself, like the when using the risk matrix, can be quite subjective, and it's a very theoretical approach" (P3).	1	1
2.8 Specific to TUI Airlines' MoC		2	4
2.8.1 Duplication	"Because if Grace goes away and does her management of change and comes back with five controls that the central region need to put in place, and I come back with another and the Western Region come out with another three or four. Robbert's just going to say to us, we can't do this, because actually, everybody needs to do the same. So, why do we have five different MOC? What you need to do is you need to get all of the MOCs together and then we write the same MOC and agree the same MOC" (P6).	2	2
2.8.2 Initial Barrier	"So, the concern being that you can only get the document from the safety department. So,	1	1

	you've got to interact, which potentially creates an initial barrier to interacting with the process" (P2).		
2.8.3 Outdated	"I don't particularly see that the management of change document or format has grown and changed as we see the world now" (P2).	1	1
3. Hazard Identification Tools		8	8
3.1 Brainstorming	"Brainstorming. So, you need to get people around the table, because if I do it myself, then my risk assessment might be good, but if you want to have a really good risk assessment, you need to do it with a group of clever people, because, well, two or three knows more than one" (P11).	3	3
3.2 Collaborative Documentation	"So, I provision them with the tools, and then that is for them to identify. What we found in a lot of our work streams the best way to do this is through workshops. It's through conversation, and it's through collective documentation" (P2).	2	2
3.3 Conversations with External Stakeholders	"By doing that conversation, for example, with your subject matter experts, they can start talking about things, but someone like myself, who has no SME on the subject at all, starts looking at it from a different perspective, and can potentially help them identify things they haven't seen before, or can draw out the conversation" (P2).	2	2
3.4 Cross-business Stakeholders	"It's just a case of the senior leadership team identifying who those stakeholders are. For them to then identify within their areas, because we're not all SMEs in all areas, for them to identify within their own area what that risk might be" (P8)	8	8
3.5 MoC (tool/framework)	"So, yeah, that's difficult, but in terms of tools and effectiveness, we have the tools. It's an MOC and an RML" (P3).	6	6
3.6 Risk Mitigation Log (tool)	"So, yeah, that's difficult, but in terms of tools and effectiveness, we have the tools. It's an MOC and an RML" (P3).	4	4
3.7 Subject Matter Experts	"So, we have a management of change framework, which is put in place. So, anyone working on a change piece must complete the management of change, and the management of change has a risk mitigation log in the front of it. And really those risks are for the SMEs to identify" (P2).	1	2
3.8 Workshops	"So, I provision them with the tools, and then that is for them to identify. What we found in a lot of our work streams the best way to do this is	1	1

	through workshops. It's through conversation, and it's through collective documentation" (P2).		
4. Major Hazards		11	49
4.1 Application Error (employee level)	"So if they were essentially authorizing different procedures or different ways of doing things for different AOCs, you could then possibly end up with a situation. It's three o'clock in the morning. The DFM has just been called. He's just got back from a break, and thinks he's speaking to a Belgium captain. Is actually speaking to the Dutch captain and gives the wrong maintenance procedure authorization or gives the wrong procedure" (P7).	2	2
4.2 Cultural Misunderstandings & Communication Issues (organisational level)	"And threat number three is communication and cultural understanding. So, you're increasing the amount of different AOCs who interact with the duty fleet manager. So, you're increasing the communications or cultural differences potential issue and that it's very important to understand" (P3).	5	5
4.3 Inadequately Trained or Experienced for the position (employee level)	"The biggest risk is not having proper training so that we don't train the people for the new role, that is definitely a big risk. People need to be qualified and trained in able to fulfill that role, in a correct way" (P4).	7	8
4.4 Increased Workload (employee level)	"I think the on call is going to be much more demanding to them...I would suspect, as is quite standard, is that early days will get a lot of escalation, and therefore that increases the workload on the people that are at the top of that escalation" (P2).	8	14
4.5 Loss of Institutional Knowledge & Employee Turnover (organisational level)	"I suppose, in terms of actually reducing the headcount, there's a risk that there's a big loss of knowledge. So, you've got people who have been doing the job for...20- 30-40 years...if we are moving them from the business, the risk is that knowledge is lost with them" (P5). "Any sort of alignment that you run the risk of losing that experience from that AOC and understanding that operation" (P8).	3	5
4.6 Resistance and Engagement (organisational level)	"And then the third risk that I see is the engagement, let's say, or the buy in from the from the local airlines. And that's going to be a bit more difficult, whether you like it or not, legacy, from a legacy point of view, people still see their own airline as their airline, so they might have difficulties accepting a centralized role. So that's something we need to ensure that we tackle that risk" (P4).	7	7
4.7 Unclear Role Expectations and Agreements (employee level)	"Secondly, I would say that it needs to be clear what their responsibilities and role is especially	3	4

	since it's something very regulatory, but the centralized company is a service level provider, but the airlines itself still have the oversight responsibility from a legal point of view, so that needs to be very clear who can do what, roles and responsibilities, clear guidance how to do that" (P4)		
4.8 Unintended Erosion of ODM Authority in the TOCC (employee level)	"I do see a risk of them being actually in person in the tocc because we have an operational duty manager in role, whose responsibility is to have oversight and manage the flying program. If we have a DFM present in the room, will they...interfere with the operation and question some of the decisions that are being made within the operations center by the operations duty manager. Likewise, the operations duty manager will feel like that they are being watched" (P8)	5	5
5. Pain Points of DFM System		11	22
5.1 Add-on role overload	"Some of the issues we have right now is that it is a an on top function...So, all the participants, they have a day job...they're mixed with flying and back office personnel, and they have a certain amount of time that they can dedicate to their normal job, and so when you're also the duty fleet manager, it means that we have to split ourselves in two, sometimes while we our regular job" (P3)	1	1
5.2 Inefficiencies and Duplication of Work	"And one of the things we have identified in our new structure...is that currently we have four duty pilots for each AOC and there are some inefficiencies with that, mainly because of the complexity it drives. So five AOCs, five different risk appetites, five different decisions for the same events" (P11)	7	7
5.3 No issues	"I think we have a good system where every duty is covered" (P1)	2	2
5.4 Siloed Ways of Working across AOCs	"I think the problem at the moment is the way that they operate, or the way that the AOCs operate is very siloed" (P5)	2	2
5.5 Structural Misalignment.	"So, you've got five different DFMs on duty at any time, which means that the people in the tocc, which sit centrally in Luton and work on behalf of the entire airline, obviously work with one central mindset around TUI airline. But, when they come to dealing with certain instances that require the DFM role to be involved, they have to then think in an AOC specific mindset, which clearly isn't withinn the goal of one TUI Airline" (P2)	4	5

5.6 Training is Resource Intensive and Informal	"Other issues with the current system, or pain points, there isn't a formalized training. There's a lot on the job training, usually involving shadowing somebody, which also duplicates the resources needed" (P3).	1	1
5.7 Weekend roster coverage inefficiency	"To achieve permanency 24/7, you also have to put people in an office day during the weekends. And while that is very nice from a permanency point of view for the duty fleet manager, it is not very effective and efficient for those people that are rostered in office days during a Saturday and a Sunday because their work then is limited to catching up with the emails or doing some other...administrative jobs, but they can't participate in meetings or reach out to stakeholders" (P4).	2	2
5.8 Working Unsocial Hours followed by Normal Office Days	"So, I think on a personal level, the challenge is that I can literally work all day in the office, and something will happen, which then means I work all evening and all night, and then, literally, I've had days where I don't go to bed, and then work all of the next day as well. So, you know, I have had long periods of time, like 30 hours, where I might have only grabbed one or two hours sleeps" (P6).	2	2