

STRATEGIC DRIVERS OF FLIGHT SAFETY PERFORMANCE IN THE INDONESIAN AIR FORCE

Wastum¹, Willy Arafah², Kusnadi
Faculty of Economics, Trisakti University, Jakarta (Indonesia)
Corresponding Author : Moch Sabur³
Department of Management,
Faculty of Economics, Trisakti University, Jakarta (Indonesia)
Jl. Kiai Tapa No. 1, Grogol, West Jakarta, 11440
Email Adress : willy.arafah@trisakti.ac.id

Abstract

Driven by the escalating complexity of military aviation operations, this study evaluates the impact of strategic safety leadership, organizational culture, and digital transformation on flight safety performance within the Indonesian Air Force. Utilizing a mixed-methods approach, the research integrates quantitative structural equation modeling with qualitative thematic exploration to provide a robust analysis of safety dynamics. The findings reveal that leadership, culture, and digital maturity exert significant positive influences on the effectiveness of the Safety Management System (SMS), which in turn drives superior flight safety performance. Crucially, the mediation analysis identifies the SMS as the vital link through which strategic inputs are converted into operational safety outcomes. These results underscore the necessity of a holistic safety framework and provide a strategic foundation for evidence-based policy formulation. This study advances military aviation safety theory by highlighting the synergy between human factors, governance, and technology in high-stakes defense environments

Keywords: *flight safety performance* , *safety management system (sms)* , *strategic safety leadership* , *safety culture* , *digital transformation*

INTRODUCTION

The Indonesian Air Force (TNI AU), as an integral component of the Indonesian National Armed Forces, is mandated by Law No. 34 of 2004 to safeguard national airspace, enforce air law, develop air power, and conduct both Military Operations for War (OMP) and Military Operations Other Than War (OMSP). To fulfil these duties, TNI AU operates highly sophisticated air weapon systems, including aircraft, UAVs, radars, and missile systems, requiring continuous training and operational readiness. As a flight-operating organization, flight safety is a fundamental priority alongside mission success. Every personnel is required to adhere strictly to safety standards and operational procedures, given the high technological risks involved. Aircraft accidents not only cause material losses and reduced operational readiness, but also have serious psychological impacts on personnel and erode public trust. Despite continuous safety initiatives, data from the Indonesian Air Force Flight and Occupational Safety Center (Puslaiklambangjau, December 2024) indicate that aircraft accidents remain relatively high, demonstrating that aviation safety performance has not yet reached optimal levels. Traditionally, aviation safety performance has been measured by accident rates (Kjellén, 2009). However, as accident rates decline, more comprehensive and proactive safety performance indicators are required. Safety, as defined by ISO (1999), refers to freedom from unacceptable risk, highlighting its contextual and organizational nature. Consequently, safety performance measurement in military aviation cannot be equated with civilian or other organizational contexts. Given the complexity of military aviation operations, this study focuses on the influence of Strategic Safety Leadership, Safety Culture, and Digital Transformation on Flight Safety Performance, with the Safety Management System (SMS) serving as a mediating variable. SMS represents a systematic approach to managing safety risks involving personnel, equipment, and operational processes (Widhiarto et al., 2020; Beskarina, 2021). The TNI AU has implemented SMS since 2006, adopting ICAO Annex 19 through the Indonesian Civil Aviation Safety Regulations (PM No. 62 of 2017). The TNI AU SMS consists of twelve elements, including leadership commitment, safety policy, organizational structure, communication, hazard identification, risk management, safety culture, audit, review, emergency response, and investigation. Programs such as *Road to Zero Accident*, initiated in 2010, have increased safety awareness but have not consistently achieved zero accidents. This raises critical questions regarding the effectiveness of SMS in mediating key organizational factors to improve safety performance. To date, no empirical study has examined the mediating role of SMS within the Indonesian Air Force context. Leadership commitment is a core SMS element and a key driver of safety culture and performance (Wu, 2008; Griffin & Hu, 2013). Safety leadership emphasizes leaders' ability to influence, motivate, and cultivate safe behaviors through trust, motivation, and organizational commitment (Blair, 2003; Clarke, 2013) Empirical studies consistently show that transformational and safety-oriented leadership positively affects safety climate, compliance, participation, and accident reduction, while passive leadership produces negative outcomes.

Similarly, safety culture has been widely acknowledged as a critical determinant of safety performance. ICAO defines safety culture as behavior toward safety when no one is watching, while CANSO emphasizes shared values and commitment at all organizational levels. Strong safety culture enhances proactive safety performance and risk management effectiveness (Hudson, 2001; Naji et al., 2021; Reason, 2000a). However, research examining safety culture within military aviation, particularly mediated by SMS, remains scarce.

In parallel, rapid technological advancement has driven digital transformation across aviation systems, including aircraft automation, IoT, big data, artificial intelligence, and simulation technologies. Digital technologies enhance hazard detection, monitoring accuracy, and risk mitigation, but also introduce new challenges such as cybersecurity risks and system dependency (Ojji, 2024). Although extensive literature highlights the role of digital technologies in improving aviation safety, their integration into the Indonesian Air Force SMS framework has not been systematically studied. Therefore, this study seeks to fill the research gap by examining how strategic safety leadership, safety culture, and digital transformation influence flight safety performance through the mediating role of the Safety Management System within the Indonesian Air Force.

LITERATUR REVIEW

Teori Safety leadership

The theory of Safety Leadership underscores its critical importance in enhancing job security and reducing workplace accidents. Research indicates that weak Safety Leadership is a major factor contributing to such incidents (Mullen et al., 2017); Tao et al., 2020). Alarming, the International Labor Organization reports around 3 million annual worker fatalities due to accidents (ILO, 2023), prompting many organizations, especially in high-risk sectors, to prioritize effective safety leadership to alleviate the moral, psychological, and economic impacts of workplace injuries (Conchie et al., 2013).

¹ Student of Doctorate Program in Economic, Trisakti University, Jakarta

² Lecturer of Doctorate Program in Economic, Trisakti University, Jakarta

³ Lecturer of Doctorate Program in Economic, Trisakti University, Jakarta

Historically, the concept of Safety Leadership emerged in the early 20th century with the term "salvation leader" (De Blois, 1919), emphasizing active leadership in accident prevention. This notion evolved during World War II as industrial demands led to increased accidents, highlighting the need for proactive leadership in safety (Zimmer, 1943). By the 1990s, transformational leadership became recognized for its role in improving safety performance, driven by its capacity to foster trust and commitment within organizations (Burns, 1978; Bass, 1985).

Recent developments in Safety Leadership theory emphasize the use of multiple leadership styles for optimized safety outcomes (Cooper, 2018; Lyubykh et al., 2022). While transformational and transactional leadership have been foundational (Clarke, 2013), newer models introduce service and democratic leadership as vital components (Lundell & Marcham, 2018). Ultimately, Safety Leadership is defined as a leader's ability to influence behaviors and attitudes toward safety, significantly enhancing organizational performance and reducing accidents (Pramudyastuti, 2024; Ojuola, 2020; Negoro et al., 2022)

Safety Culture Theory

Theory of safety culture is an integral part of organizational culture, defined by Helmreich and Merritt (1998) as a complex framework of national, organizational, and professional attitudes and values. Clarke (1999) specifies that these values, particularly concerning health and safety, constitute safety culture. Zohar (1980) describes it as a shared perception guiding safety-related behaviors based on environmental signals. Furthermore, Cox & Cox, (1991) interpret employee attitudes and behaviors in relation to safety as a critical aspect of safety culture. According to (Reason, 2000b) safety culture is the organization's ability to manage risks effectively while achieving organizational goals.

To enhance safety culture, (Reason, 1997) identifies basic elements that drive organizational safety. These elements include an Informed Culture, where leaders are aware and employees report incidents voluntarily; a Just Culture, promoting a non-punitive atmosphere with clear definitions of acceptable behaviors; a Flexible Culture, which adapts to organizational needs; a Learning Culture, willing to embrace necessary changes; and a Mindful and Wary Culture, prepared for unexpected situations. Safety culture is dynamic, capable of evolving for better or worse.

Westrum (2004) categorizes safety culture into three types based on information flow: Pathological, Bureaucratic, and Generative. Generative safety cultures align with High-Reliability Organizations (HRO), as discussed by Karl Weick (1998), where safety is prioritized organically without requiring extensive monitoring. Building on Westrum's model, Reason (1997) expanded it to five levels: Pathological, where employee indifference prevails; Reactive, where safety awareness leads to reactionary measures post-incident; Calculative, with established systems for hazard management; Proactive, where organizations anticipate safety issues; and Generative, where safety is inherent in every employee's mindset, reflecting a commitment to high reliability.

Safety Management Theory

Safety management theory is a crucial part of broader management theory, emerging alongside industrial development to address workplace risks (Thomas, 2011). This discipline emphasizes mechanisms that promote occupational safety across various industries. Thomas (2011) notes that when safety promotion transitions from mere regulation to an integrated organizational system, it forms what is known as a Safety Management System (SMS), which serves as a strategic framework for achieving workplace safety. Initially, worker and public safety relied heavily on government regulations and compliance, with oversight conducted by inspectors to ensure adherence to established safety standards (Thomas, 2011).

As the industrial revolution advanced, this regulatory system was deemed effective; however, by the late 20th century, a sharp increase in workplace accidents necessitated a shift in the safety management paradigm. The responsibility transitioned from solely the government to individual organizations, particularly those with varying levels of risk. Regulatory compliance alone was no longer sufficient to manage workplace hazards, leading to the implementation of comprehensive Safety Management Systems, which include structured processes to identify, analyze, estimate, and control potential risks (Bottomley, 1999). The International Civil Aviation Organization (ICAO, 2009) defines SMS as a systematic approach to safety management that encompasses organizational structure, accountability, policies, and procedures essential for effective safety. ICAO outlines a minimum of 12 elements within Safety Management Systems, which are categorized into four main components: Safety Policies and Objectives, encompassing management commitments and responsibilities, safety accountability, appointment of personnel, accident investigation coordination, and documentation; Risk Management, which includes hazard identification and risk assessment; Safety Assurance, focusing on performance monitoring, change management, and continuous improvement; and Safety Promotion, emphasizing training, education, and communication. In summary, safety management theory has evolved from a regulatory compliance approach to a proactive management system, empowering organizations to effectively mitigate workplace risks while ensuring the safety of their employees.

Digital Transformation Theory

The rapid development of science and technology, particularly since the introduction of personal computers in the 1970s, has signified the beginning of digital technology's integration into human life (Kalay, 2004). The subsequent advancement of internet technology in the 1980s revolutionized communication and access to information. Initially designed for military applications, this technology became widely adopted by the public, ushering in a massive digital revolution through the World Wide Web, which serves as a global information gateway (Subekti et al., 2024). In response to the industry's demand for consumer satisfaction, new technologies emerged to support ongoing digital transformation, such as Dot Com and E-commerce in the 1990s, which redefined global business practices. The early 2000s saw the rise of social media, altering the patterns of social interaction, while the mid-2000s introduced innovations like Cloud Computing, the advent of smartphones, Big Data analytics, the Internet of Things (IoT), and the development of artificial intelligence and machine learning, enabling machines to operate autonomously (Subekti et al., 2024).

Today, digital transformation is essential across various aspects of human life. However, academia lacks a unified definition of digital transformation. Subekti et al. (2024) describe it as the process of implementing digital technology within organizations to enhance efficiency, foster innovation, and add value in an increasingly connected and rapidly evolving world. Additionally, Putri (2024) emphasizes that digital transformation involves more than merely adopting digital technologies; it necessitates a fundamental shift in organizational paradigms, including cultural and structural changes, to gain competitive advantages in the digital age.

Theory Dynamic Safety Capability

Dynamic Safety Capability (DSC) is a strategic management approach derived from the Dynamic Capability theory proposed by Teece et al. (1997), which emphasizes an organization's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. Teece defines these capabilities as the foundation for sustained competitive advantage through continuous adaptation. Building upon this framework, Griffin et al. (2016) introduced Dynamic Safety Capability as an organization's proactive capacity to adjust operational routines and safety systems to maintain high levels of safety performance despite uncertainty, high-risk conditions, and shifting circumstances. According to this perspective, the core components of DSC involve the ability to detect and interpret safety threats, manage competing organizational goals, and modify safety procedures to ensure long-term resilience and credibility. The dimensions of Dynamic Safety Capability are essential for organizations to achieve three primary objectives. First, it facilitates the improvement of safety performance within complex and volatile environments. Second, it strengthens organizational resilience, enabling firms to withstand unexpected threats and potential hazards effectively. Third, it provides a competitive advantage, as organizations maintaining superior safety standards demonstrate higher reliability, which bolsters worker morale and corporate reputation. Griffin (2016) posits that the effectiveness of DSC is rooted in the integration of change, adaptability, and resilience across various safety disciplines.

To operationalize DSC, Griffin identifies five integrated safety approaches that bridge general management theory with safety practice. Safety Culture and Climate serves as the motivational driver for future adaptation, exploring how shared values influence systemic change. This is complemented by High Reliability Theory (HRT), which focuses on maintaining organizational vigilance and the capacity to adapt to unexpected events. In contrast, Normal Accident Theory (NAT) acknowledges the inherent complexity of modern systems, suggesting that accidents are often inevitable due to tight coupling and systemic interactions. The learning aspect of DSC is captured through Error Management Culture, which shifts the focus from eliminating errors to extracting valuable information from them to improve organizational learning processes. Finally, Resilience Engineering describes the ability to maintain a dynamic stable state amidst disruptions. This approach emphasizes that system failures arise from an inability to adapt to complexity rather than simple malfunctions. Collectively, these dimensions allow organizations to bridge the gap between theoretical strategic management and practical safety implementation, ensuring that safety systems remain robust and responsive to the dynamics of the modern industrial landscape.

RESEARCH METHODOLOGY

This study employs a mixed-methods approach aimed at achieving a comprehensive understanding of the relationships among Strategic Safety Leadership, Organizational Culture, and Digital Transformation concerning Flight Safety Performance, with the Safety Management System as a mediating variable. A quantitative-only approach is insufficient to capture the nuances of military organizational contexts, warranting qualitative exploration of personnel experiences and perceptions. The sequential explanatory design starts with quantitative data collection and analysis, followed by qualitative methods to deepen statistical findings. This integration allows for a richer understanding of results. Philosophically, the quantitative aspect is rooted in positivism while the qualitative element explores social meanings beyond numerical data.

The research is deductive, developing hypotheses from existing theories and empirical findings, which are then tested through field data. Quantitative analysis employs Structural Equation Modeling (SEM) with a Partial Least Squares (PLS) approach, chosen for its ability to analyze simultaneous relationships among latent variables and accommodate mediation models without needing large sample sizes or normal data distribution. The study focuses on active Air Force personnel across various ranks and units, specifically officers with ten years of experience and relevant educational background, to ensure that respondents possess adequate knowledge regarding flight safety.

The population consists of approximately 371 personnel, with a sample size of 79 respondents determined using Slovin's formula for a 10% margin of error. Proportional stratified random sampling ensures fair and accurate representation across units and ranks. Data collection includes primary sources through surveys, observations, and interviews, supplemented by secondary data from literature and documentation. Quantitative data analysis involves testing both measurement (outer model) and structural (inner model) using SEM-PLS. Qualitative data is processed through thematic analysis to enrich quantitative results. The integration of both data sets occurs during discussion to validate and deepen research findings.

RESULT AND DISCUSSION

Hypothesis 1: The first hypothesis tests the influence of Strategic Safety Leadership on Flight Safety Performance. The hypotheses are defined as follows:

Ho: There is no effect of Strategic Safety Leadership on Flight Safety Performance.

Ha: There is an effect of Strategic Safety Leadership on Flight Safety Performance.

Based on the results, the influence of Strategic Safety Leadership on Flight Safety Performance results in a T-statistic of 3.132 (> 1.96) and a P-value of 0.002 (< 0.05). This indicates that the path coefficient is positive and the hypothesis stating that Strategic Safety Leadership significantly affects Flight Safety Performance is accepted. Statistically, this finding suggests that higher Strategic Safety Leadership leads to improved Flight Safety Performance.

Hypothesis 2 : The second hypothesis assesses the influence of Organizational Culture on Flight Safety Performance, formulated as follows:

Ho: There is no effect of Organizational Culture on Flight Safety Performance.

Ha: There is an effect of Organizational Culture on Flight Safety Performance.

The findings indicate that Organizational Culture directly impacts Flight Safety Performance with a T-statistic of 3.317 and a P-value of 0.001. Thus, this hypothesis is supported, highlighting that a positive Organizational Culture contributes to enhanced Flight Safety Performance. A culture that prioritizes safety encourages open communication and support among team members, fostering an environment where safety concerns can be addressed proactively.

Hypothesis 3 : The third hypothesis evaluates the influence of Digital Transformation on Flight Safety Performance with the following hypotheses:

Ho: There is no effect of Digital Transformation on Flight Safety Performance.

Ha: There is an effect of Digital Transformation on Flight Safety Performance.

The results indicate that Digital Transformation has a T-statistic of 0.423 and a P-value of 0.673, meaning this hypothesis is not supported. This finding suggests that, contrary to expectations, Digital Transformation does not have a significant impact on Flight Safety Performance. Factors such as incomplete implementation of digital tools or resistance to change may hinder the expected benefits of Digital Transformation in enhancing safety performance.

Hypothesis 4 : The fourth hypothesis tests the influence of Safety Management System on Flight Safety Performance:

Ho: There is no effect of Safety Management System on Flight Safety Performance.

Ha: There is an effect of Safety Management System on Flight Safety Performance.

The results show a T-statistic of 4.571 and a P-value of 0.000, thus supporting this hypothesis. This indicates that Safety Management System significantly contributes to Flight Safety Performance. An effective Safety Management System establishes protocols and procedures that reduce risks and promote a culture of continuous improvement, which leads to better safety outcomes.

Hypothesis 5: The fifth hypothesis examines the influence of Strategic Safety Leadership on Safety Management System:

Ho: There is no effect of Strategic Safety Leadership on Safety Management System.

Ha: There is an effect of Strategic Safety Leadership on Safety Management System.

The results reveal a T-statistic of 2.861 and a P-value of 0.004, supporting the hypothesis. Higher Strategic Safety Leadership positively influences the effectiveness of the Safety Management System. Leadership that prioritizes safety creates an environment where safety protocols are understood and integrated into daily operations, enhancing overall safety performance.

Hypothesis 6: The sixth hypothesis tests the impact of Organizational Culture on Safety Management System:

Ho: There is no effect of Organizational Culture on Safety Management System.

Ha: There is an effect of Organizational Culture on Safety Management System.

The findings yield a T-statistic of 3.733 and a P-value of 0.000, thus supporting this hypothesis. Positive Organizational Culture is crucial for a robust Safety Management System. A culture that embraces safety values and encourages participation can lead to the establishment and maintenance of comprehensive safety protocols.

Hypothesis 7 : The seventh hypothesis evaluates the influence of Digital Transformation on Safety Management System:

Ho: There is no effect of Digital Transformation on Safety Management System.

Ha: There is an effect of Digital Transformation on Safety Management System.

The results demonstrate a T-statistic of 8.368 and a P-value of 0.000, confirming that this hypothesis is supported. Digital Transformation plays a significant role in the implementation of Safety Management System as it provides the tools and technologies needed for efficient data management and communication, leading to enhanced safety practices.

Hypothesis 8 : Hypothesis eight examines the influence of Strategic Safety Leadership on Flight Safety Performance mediated by the Safety Management System, stated as follows:

Ho: There is no influence of Strategic Safety Leadership on Flight Safety Performance mediated by the Safety Management System.

Ha: There is an influence of Strategic Safety Leadership on Flight Safety Performance mediated by the Safety Management System.

Based on the hypothesis testing results in this study, the influence of Strategic Safety Leadership on Flight Safety Performance mediated by the Safety Management System yields an indirect effect of 0.057, a T-statistic of 2.370, and a P-value of 0.018. The findings indicate that the Safety Management System successfully mediates the relationship between Strategic Safety Leadership and Flight Safety Performance. This suggests that effective leadership enhances the implementation of safety protocols, leading to improved safety outcomes.

Hypothesis 9 : Hypothesis nine examines the influence of Organizational Culture on Flight Safety Performance mediated by the Safety Management System, stated as follows:

Ho: There is no influence of Organizational Culture on Flight Safety Performance mediated by the Safety Management System.

Ha: There is an influence of Organizational Culture on Flight Safety Performance mediated by the Safety Management System.

Based on the hypothesis testing results in this study, the influence of Organizational Culture on Flight Safety Performance mediated by the Safety Management System yields an indirect effect of 0.072, a T-statistic of 2.946, and a P-value of 0.003. This result supports the hypothesis, indicating that the Safety Management System serves as a mediator between Organizational Culture and Flight Safety Performance. A supportive organizational culture enhances safety management practices, improving overall safety performance.

Hypothesis 10 : Hypothesis ten examines the influence of Digital Transformation on Flight Safety Performance mediated by the Safety Management System, stated as follows:

Ho: There is no influence of Digital Transformation on Flight Safety Performance mediated by the Safety Management System.

Ha: There is an influence of Digital Transformation on Flight Safety Performance mediated by the Safety Management System.

Based on the hypothesis testing results in this study, the influence of Digital Transformation on Flight Safety Performance mediated by the Safety Management System yields an indirect effect of 0.116, a T-statistic of 3.971, and a P-value of 0.000. The findings indicate that the Safety Management System effectively mediates the relationship between Digital Transformation and Flight Safety Performance. This suggests that integrating digital tools into safety protocols enhances safety outcomes, underlying the importance of digital transformation in modern safety management practices.

CONCLUSION

Based on the quantitative analysis through SEM-PLS testing, reinforced by qualitative findings from in-depth interviews, this study concludes that Flight Safety Performance in the Indonesian Air Force has significant influences from Strategic Safety Leadership, Organizational Culture, and Digital Transformation, mediated by the Safety Management System. Out of the ten hypotheses examined, nine were supported, while one was not. The Safety Management System plays a crucial mediating role in enhancing the impacts of Strategic Safety Leadership, Organizational Culture, and Digital Transformation on Flight Safety Performance.

Detailed conclusions based on the research objectives and hypothesis testing are as follows:

1. There is a positive and significant influence of Strategic Safety Leadership on Flight Safety Performance. This signifies that enhancements in Strategic Safety Leadership, such as leaders setting clear safety goals and standards, lead to improved Flight Safety Performance.
2. Organizational Culture exhibits a positive and significant influence on Flight Safety Performance, indicating that a deeper understanding and commitment to safety values contribute to better safety outcomes.
3. Digital Transformation does not have a significant effect on Flight Safety Performance, suggesting that merely implementing safety information systems may not directly enhance safety performance.
4. The Safety Management System positively and significantly influences Flight Safety Performance, emphasizing that a structured approach to managing safety enhances overall performance.
5. Strategic Safety Leadership positively affects the Safety Management System, highlighting that effective leadership results in a more robust safety management framework.
6. Organizational Culture positively influences the Safety Management System, indicating that a culture committed to safety enhances the effectiveness of safety protocols.
7. Digital Transformation significantly influences the Safety Management System, demonstrating that technological advancements can improve safety management practices.
8. There is a positive and significant influence of Strategic Safety Leadership on Flight Safety Performance mediated by the Safety Management System, marking a vital link that enhances the effects of leadership on safety outcomes.
9. Organizational Culture positively influences Flight Safety Performance mediated by the Safety Management System, reflecting the importance of cultural factors in enhancing safety management.
10. Digital Transformation influences Flight Safety Performance mediated by the Safety Management System, indicating that effective safety systems can enhance the impacts of digital initiatives..

LIMITATIONS

This study has several limitations:

1. The research exclusively focuses on the mediating role of the Safety Management System between Strategic Safety Leadership, Organizational Culture, Digital Transformation, and Flight Safety Performance.
2. The respondents are limited to the Indonesian Air Force personnel.
3. The research is quantitative, conducted over a short duration.

RESEARCH IMPLICATIONS

1. Practical/Managerial Implications

The findings indicate a positive influence of Strategic Safety Leadership, Organizational Culture, and Digital Transformation on the Safety Management System, which has implications for Flight Safety Performance. Some recommendations include:

- **Strategic Safety Leadership:** Leaders need to uphold effective practices while addressing shortcomings. They should maintain clear communication about safety goals and actively monitor compliance while improving training accessibility and participation.
- **Organizational Culture:** Leaders should improve understanding and acceptance of safety values, ensure preventive measures are collaborative, and foster pride in the organization.
- **Digital Transformation:** Leaders should enhance safety information systems across levels, ensure accessibility of safety-related applications, and leverage AI for improved outcomes.
- **Safety Management System:** Maintain belief in the systemic nature of the Safety Management System and improve integration of technological advancements.
- **Flight Safety Performance:** Encourage a culture of safety, ensure adherence to procedures, and enhance reporting mechanisms to foster active participation in safety initiatives.

2. Theoretical Implications

Theoretical implications of this study highlight:

- Strategic Safety Leadership, Organizational Culture, and Digital Transformation significantly affect the Safety Management System.
- These factors also positively influence Flight Safety Performance.
- The study reveals a significant mediating effect of the Safety Management System, contributing new insights into how leadership and culture enhance safety performance through structured management systems.

SUGGESTIONS FOR FUTURE RESEARCH

Considering the limitations of this study, future research should:

1. Include other mediating variables beyond the Safety Management System.
2. Explore additional factors beyond Digital Transformation that impact Flight Safety Performance.
3. Expand the respondent pool to include a broader demographic.
4. Incorporate qualitative methods to enrich the quantitative findings and provide deeper insights.

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