

# FEEDFORWARD

JOURNAL OF HUMAN RESOURCE

VOL. 6 NO. 1 APRIL 2026



PUBLISHED BY:  
FACULTY OF ECONOMICS AND BUSINESS  
UNIVERSITAS PELITA HARAPAN

**FEEDFORWARD: JOURNAL OF HUMAN RESOURCE**  
**Vol. 6, No. 1, April 2026**

*Feedforward: Journal of Human Resource* is published by the Faculty of Economics and Business, Universitas Pelita Harapan. The aim of this journal is to provide original research articles related to key concepts and theories in the human resource management field. There are two issues published each year, in April and September. This journal provides a forum for independent research and analysis on human resource management. This journal seeks to reflect a range of views from within the scholarly human resource studies, promote a better understanding of human resource thinking on contemporary national and international themes.

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## EDUCATION LEADERSHIP IN THE ERA OF DIGITAL TRANSFORMATION AND ARTIFICIAL INTELLIGENCE: IMPLICATIONS FOR SUSTAINABLE HUMAN DEVELOPMENT

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### ABSTRACT

This study examines how educational leadership responds to digital transformation and artificial intelligence (AI), and how such leadership fosters sustainable human development in Indonesia and similar developing contexts. Methodology, A systematic literature review (SLR) was conducted using PRISMA 2020 guidelines. Fifteen eligible articles published between 2018 and 2024 were analyzed through a thematic synthesis and bibliometric mapping approach, with quality appraisal guided by the Joanna Briggs Institute (JBI) standards. The results show that digital leadership improves instructional quality, organizational innovation, and governance efficiency. AI in education enables data-driven decision-making, but it also raises concerns about equity and ethics. In resource-constrained settings, leadership that strikes a balance between technological use and humanistic values makes a significant contribution to human development. The study focuses solely on peer-reviewed articles from 2018 to 2024, potentially excluding gray literature and earlier foundational work. The findings emphasize the urgency of strengthening digital leadership capacity, developing AI governance in education, and ensuring inclusive access to technology. This study integrates leadership, digital transformation, AI, and human development into a unified framework, offering fresh insights for policy and practice.

**Keywords:** Educational Leadership; Digital Transformation; Artificial Intelligence; Human Development; Systematic Literature Review

## INTRODUCTION

Over the last decade, advances in digital technology and artificial intelligence (AI) have rapidly transformed the landscape of various sectors, including education (Romero, 2024). Digital transformation in education is not just about introducing new software or tools, but about changing learning paradigms, organizational structures, the way teachers and students interact, and institutional policies (Joseph et al., 2024; Singun, 2024). Education leadership is the spearhead in bridging technological innovation with the core values of education so that transformation is not just a formal modernization, but a catalyst for better human development (White, 2014). Artificial intelligence is now a crucial component in the digital transformation process (McCarthy et al., 2023). AI enables learning personalization, big data analysis to map student learning patterns, automation of administrative tasks, and predictive systems for educational interventions (Ocen et al., 2025; Sposato, 2025). However, behind its capabilities, AI also presents serious challenges, including algorithmic bias, lack of transparency (due to its 'black box' nature), data privacy issues, and the potential to widen the gap if not accompanied by careful policy and leadership. Research on AI in the field of education reveals that, despite its considerable potential, a gap remains in integrating human values into its implementation design (Yan et al., 2025). Phenomena on the ground show that many educational institutions—both in developed and developing countries—are beginning to adopt AI and other digital solutions in their learning operations and processes (Gouseti et al., 2024; Sposato, 2025). However, this adoption has not always been aligned with improving the quality of education that reflects human development holistically. For example, some schools utilize AI systems for teacher performance audits or summarizing student learning outcomes; however, there is no guarantee that such interventions enhance students' critical thinking capacity, creativity, or social competence (Hanshaw, 2024).

In this constellation, gap phenomena emerge that require systematic observation. First, there is a gap between the adoption of AI technology and its consequences for human development (Vieriu & Petrea, 2025). Although several institutions claim to improve efficiency or accuracy through AI, empirical evidence demonstrates that the use of AI strengthens human capabilities (such as critical thinking skills, equal access, and digital literacy) is still very limited (Fulmer & Zhai, 2024; Stahl et al., 2020). Second, the literature linking education leadership to digital transformation and AI generally addresses technical aspects or implementation cases, but few connect conceptually with human development outcomes. Third, in terms of methodology, previous literature reviews often lack a transparent description of protocol steps—such as inclusion/exclusion criteria, search strategies, or synthesis methods—making them difficult to replicate or reevaluate. The paradigm of Durach et al. (2017) emphasizes that traceability and replication are essential prerequisites for systematic research; however, this practice has not been fully adopted in previous studies. Fourth, many of the studies produced come from developed country contexts, while developing country contexts—with their resource challenges, infrastructure limitations, and digital divides—are still relatively underexplored.

The urgency of this research arises from real theoretical and practical needs. Theoretically, this research seeks to unify the conceptual framework between educational leadership, digital transformation, AI, and human development—an interdisciplinary approach that has not been widely practiced. Practically, academic institutions need clear strategic guidelines so that AI adoption is not only about pursuing efficiency, but also about strengthening human capacity and justice in education. In the era of the Sustainable Development Goals (SDGs), particularly those related to quality education (SDG 4) and human development, as outlined by the United Nations General Assembly (2015), digital

transformation must be directed towards more equitable human development (UNESCO, 2016). In addition, by applying the PRISMA 2020 protocol Page et al. (2021) and Durach et al. (2017) paradigm, this study will provide methodological transparency, making it a valuable reference or verification process for follow-up studies. Based on this background and the urgency that exists, this study is designed to answer the following core questions:

1. RQ1: How does literature describe the concepts and practices of education leadership in the context of digital transformation and AI in education?
2. RQ2: How the relationship is revealed between digital transformation / AI and human development through educational studies,
3. RQ3: What are the dominant themes, conceptual models, and research gaps that are formed from the intersection of leadership, digital/AI, and human development, and
4. RQ4: What are the practical recommendations and educational policies that emerge from the synthesis of literature to improve the quality of human development through digital leadership and AI?.

## LITERATURE REVIEW

A literature review provides a conceptual foundation that guides the direction of this research, particularly in connecting aspects of human development, educational leadership, digital transformation, and artificial intelligence (AI) within the framework of educational development in Indonesia. To maintain academic consistency and methodological transparency, this discussion is not only descriptive but also analytical, drawing on the latest literature and real-world practice in a national context.

### Human Development in the Context of Education

The concept of human development serves as the primary foundation in the global agenda of the Sustainable Development Goals (SDG 4), which aims to ensure access to inclusive, equitable, and quality education (UNESCO, 2016). Human development does not solely focus on economic growth, but emphasizes the development of individual capabilities, especially in terms of literacy, skills, health, and global competitiveness (Croes et al., 2021). In the Indonesian context, the Human Development Index (HDI) is a critical indicator. Data from the UNDP Human Development Report (2023) indicate that Indonesia remains in the upper middle class, with the primary challenges being education quality gaps between regions, urban-rural divides, and digital gaps that have become increasingly evident following the COVID-19 pandemic (Johnson et al., 2022). The literature also emphasizes that improving the quality of human resources in the digital era requires a transformation of the education system that not only emphasizes basic skills but also 21st-century competencies, such as critical thinking, problem-solving, collaboration, and digital literacy (Trilling & Fadel, 2021). Therefore, human development is a frame of reference that demands transformative, leadership-based education and the adoption of digital technology to remain relevant in the face of global change. Without strengthening this aspect, Indonesia's human resources may have the potential to lag behind those of other ASEAN countries (ASEAN Secretariat, 2023).

### Educational Leadership in the Era of Transformation

Educational leadership is a crucial element in bridging human development with the needs of digital transformation. Effective education leaders not only serve as administrators but also as change agents who can move teachers, students, and society toward a vision of quality education (Do & Mai, 2020). In the Indonesian context, the challenge of educational leadership is evident in the limited capacity of school principals to integrate technology into

learning and school governance (Hamzah et al., 2021). The Sianipar and Angelia (2023) emphasizes that transformative leadership in education in Indonesia is necessary to develop a school organizational culture that is adaptable to digitalization. Principals and leaders of educational institutions are required to have a digital vision, data-driven managerial skills, and the courage to break through the often-rigid bureaucracy. International literature also emphasizes that digital educational leadership can enhance the effectiveness of school organizations by strengthening communication through digital platforms, encouraging technology-based pedagogical innovation, and increasing accountability through online monitoring systems (Netolicky, 2020). It is particularly relevant to the situation in Indonesia, where the implementation of Freedom of Learning requires school leaders to be more flexible in managing curriculum and resources (Haliwigena et al., 2024).

### **Digital Transformation in Education**

Digital transformation is a fundamental pillar in human development in the 4.0 era. The digitalization of education in Indonesia has accelerated significantly during the pandemic, through the use of e-learning platforms, Learning Management Systems (LMS), and online communication technology. However, the literature confirms that digitalization in Indonesia still faces an access gap between urban and rural areas (Yuliandari et al., 2023). According to Amiri (2025), digital transformation in education is not just about adopting technology, but also changing the processes, culture, and mindset of educational organizations. In Indonesia, this requires investment in digital infrastructure, teacher literacy, and regulations that support the digital education ecosystem. Without it, digitalization has the potential to widen the gap of inequality between students and schools (Imaduddin & Firdaus, 2025). Cutting-edge research emphasizes that digital transformation is effective only if it is led by a clear national strategy that integrates the public and private sectors and involves communities in the co-creation of education (World Economic Forum, 2023). In the Indonesian context, the digitalization of education must also be aligned with the strengthening of local culture so as not to give birth to global homogenization that erodes the nation's identity.

### **Artificial Intelligence (AI) in Education.**

The development of Artificial Intelligence (AI) presents both new opportunities and challenges for the education sector. AI in education encompasses a range of applications, including personalized learning and intelligent tutoring systems, as well as predictive analytics for monitoring student development (Zawacki-Richter et al., 2019). Recent literature indicates that AI can support adaptive learning by providing content recommendations tailored to students' unique needs (Holmes et al., 2022). However, the Indonesian context shows its own dynamics. The use of AI in schools remains limited, primarily confined to the application of AI-based tools for grammar checking, speech recognition, and automated grading systems (Rahman et al., 2023). Ethical challenges also arise, such as the privacy of student data, the potential for algorithmic bias, and the readiness of teachers to critically integrate AI into learning (Farooqi et al., 2024). International studies emphasize that the use of AI in education must still place humans at the center, not replace the role of teachers. AI should be positioned as an augmenting tool to strengthen creativity, analysis, and empathy, not as a substitute for human interaction (Sianipar & Angelia, 2025). It aligns with the goal of human-centered AI, which positions technology as a means to augment human capabilities, rather than replace them. Recent empirical studies indicate that teacher readiness, encompassing digital literacy, self-efficacy, pedagogical competence, and management support, is the primary predictor of digital learning effectiveness (Nurhikmah et al., 2024). Therefore, the role of educational

leadership is crucial in directing this transformation to have a genuinely positive impact on human development.

### Conceptualization of Intervariable Relationships

The literature shows that there is a close connection between human development, educational leadership, digital transformation, and AI. Human development is a macro-outcome that is directly influenced by the quality of academic leadership in directing digital transformation. Strong educational leadership will ensure that digital transformation is inclusive and equitable, enabling the effective utilization of AI as a catalyst for learning innovation. AI, when managed appropriately, accelerates human development by enhancing the quality of education, which is more personalized, efficient, and relevant to global needs, as illustrated in Figure 1.

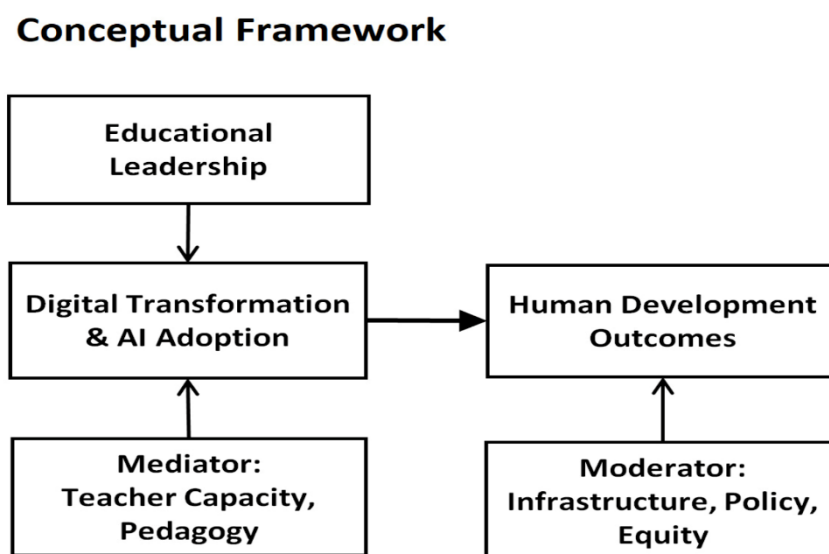


Figure 1. Conceptual Framework

The framework explains that educational leadership plays a crucial role in driving digital transformation and the adoption of AI. However, the impact on human development outcomes such as access to education, learning outcomes, and equality can only be achieved if supported by teacher capacity and a conducive policy environment. Mediators (teacher capacity and pedagogy) and moderators (infrastructure, policies, and equality) are crucial factors that influence the direction and magnitude of these effects. Thus, this study will map relevant empirical evidence to explain the relationships between elements within this framework.

## RESEARCH METHOD

### Research Design

This study uses the Systematic Literature Review (SLR) approach to synthesize findings related to human development, educational leadership, digital transformation, and artificial intelligence (AI) in education. SLR was chosen because it is capable of producing a systematic, critical, and accountable literature review. This design is based on the paradigm of Durach et al. (2017), which emphasizes transparency and traceability at every stage, ensuring that the results are replicable and credible. The PRISMA 2020 reporting standard is used to guide the process of identifying, filtering, and including articles in a structured manner with a clear flow

diagram (Page et al., 2021). The selection of SLRs is relevant, considering that the topic of AI integration in education is still new. Therefore, it is essential to identify research patterns and study gaps that support the achievement of Sustainable Development Goal 4 on quality education (UNESCO, 2016). The Indonesian context is considered, particularly in relation to digital disparities, school leadership capacity, and teachers' readiness to utilize technology (Sianipar & Angelia, 2025; Hamzah et al., 2021). Thus, this design comprehensively connects global literature with local needs.

### Eligibility Criteria

In this study, inclusion and exclusion criteria were compiled to ensure consistency, transparency, and relevance to the research objectives. Articles under consideration must be published in peer-reviewed journals, available in full-text form, in English or Indonesian, and directly address the topics of educational leadership, digital transformation, teacher motivation, job satisfaction, and the integration of AI in the context of education. The publication year limit is set for 2018–2024. This range was chosen because it reflects a significant period of educational transformation: the initial phase of AI adoption and digitalization of education since 2018, then the acceleration of the use of technology due to the COVID-19 pandemic (2020–2022), and the development of digital leadership practices that are increasingly mature after 2022. Articles published before 2018 are excluded because they are considered less relevant to current conditions, while articles published after 2024 cannot be included due to data collection time limitations (Durach et al., 2017) as shown in Table 1.

Table 1. Inclusion/Exclusion Criteria

Criteria for Inclusion/Exclusion	Reasoning
<b>Inclusion Criteria</b>	
The paper was published from 2018 to 2024	Capturing key phases of digital transformation and educational leadership in the era of AI and the COVID-19 pandemic; increasing comparability and reducing <i>biased time-lag</i> (Zawacki-Richter et al., 2019).
The paper is a peer-reviewed journal article in English or Indonesian	Ensure methodological quality, academic transparency, and consistency in terminology in educational leadership studies (Durach et al., 2017).
Empirical designs: qualitative, quantitative, or mixed methods	Allows for consistent quality assessment across various research designs.
Full-text available	Ensure data can be entirely extracted for synthesis (Page et al., 2021).
<b>Exclusion Criteria</b>	
Papers outside 2018–2024, non-English/Indonesian, duplicate, or without full-text access	Maintaining data integrity, limiting scope, and preventing language and publication bias.
Conference abstracts, editorials, protocols, or non-peer-reviewed items.	Avoid a lack of methodological detail and transparency of reporting.
Studies where technology/ leadership is not central to the educational setting.	Ensuring direct linkage to school education policy and leadership.
Pure technology trials without leadership or policy implications	Ensuring a focus on the role of AI/technology as part of leadership implementation, not just a technical tool.

**Source:** Prepared by the authors following Durach et al. (2017)

### Information Sources and Search Strategy

The literature search in this study was conducted systematically using various credible international and national academic databases. The databases used include Scopus, Web of Science, ScienceDirect, SpringerLink, Taylor & Francis Online, and Emerald Insight for international literature, as well as Garuda, DOAJ, and Google Scholar, which also represent local Indonesian literature. The selection of this database is based on its multidisciplinary reach and strong academic reputation, ensuring coverage of literature relevant to topics such as educational leadership, digital transformation, and the adoption of AI in educational contexts (Page et al., 2021). The search strategy employs a combination of keywords: (utilizing Boolean

operators "AND" and "OR") to narrow down the results while maintaining the breadth of the study. Keywords used include: ("human development" AND "educational leadership", "digital transformation" OR "AI in education", "school leadership" AND "artificial intelligence", "transformational leadership" AND "technology integration").

Additional filters are applied to the year of publication (2018–2024), language (English and Indonesian), and type of publication (peer-reviewed journal articles with full-text access). This approach aligns with the principles of PRISMA 2020, which prioritizes transparency in literature search reporting, as shown in Figure 2.

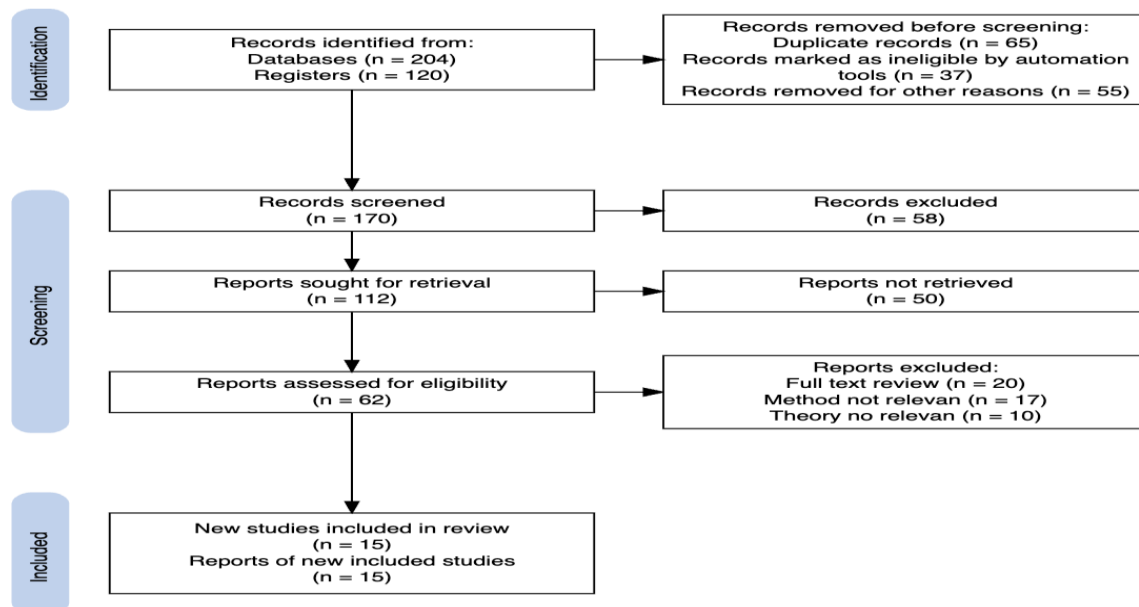


Figure 2. PRISMA Flowchart

### Data Collection and Screening Process

The data collection and screening process is carried out in accordance with the PRISMA 2020 guidelines to ensure scientific transparency, traceability, and accountability (Page et al., 2021). In the initial stage, the literature search yielded 204 articles from international databases. Therefore, the total number of identified articles is 324. Of the total initial findings, 65 duplicate articles were removed, 37 articles were deemed ineligible by the automated system, and an additional 55 articles were excluded for reasons such as inappropriate publication formats. After this stage, 170 articles remain to be further screened. The screening stage involves reading the title and abstract. Out of 170 articles, 58 were removed because they were irrelevant to the topic of educational leadership, digitalization, or AI in the context of human development. Thus, there are 112 articles left to be considered for the next stage, namely, full-text examination. At the retrieval stage, out of the 112 articles screened, 50 articles could not be accessed in full-text form, either due to institutional access limitations or because they were retracted publications. It leaves 62 articles for an eligibility assessment. The feasibility assessment is conducted by thoroughly examining the article's content, taking into account the suitability of the methodology, the research context, and the relevance of the theory. As a result, 20 articles were excluded because empirical findings could not be verified, 17 articles were rejected because the research method was irrelevant, and 10 articles were eliminated because the theory or conceptual framework did not match the focus of the study. Finally, the 15 remaining articles that met all the inclusion criteria and passed the selection process are presented in Figure 2. These articles serve as the basis for a systematic synthesis in this study.

This rigorous selection process aligns with the framework of Durach et al. (2017), which emphasizes the importance of systematization and traceability in systematic literature reviews. Thus, only articles of high methodological quality and thematic relevance are included in the analysis.

### **Data Extraction.**

The data extraction process was carried out systematically on 15 articles that met the inclusion criteria, following the PRISMA 2020 guidelines to maintain scientific transparency and accountability. Each article is thoroughly reviewed, then entered into a structured extraction sheet that contains the identity of the publication (author, year, title, and affiliation), journal origin, research design, sample size, educational setting, key variables studied, and key findings related to transformational leadership, digital transformation, and human capital development. Two reviewers independently extracted all items using a shared codebook; Any disagreements were resolved through discussion, and if necessary, through third-party adjudication. The agreement between raters during calibration exceeded  $\kappa = 0.80$ , indicating substantial consistency across the field inclusion and coding of the indicators. In parallel, each study received a JBI critical assessment rating (Low/Medium/High issue) that matched its design, and these ratings were stored alongside the extracted data to inform weight and durability analysis.

### **Quality Assessment**

Article quality assessment is a crucial stage in systematic literature review because it ensures that the evidence used in the synthesis has adequate reliability and methodological validity. In this study, the quality assessment process was conducted using the Joanna Briggs Institute (JBI) Critical Appraisal Tools, which provide different instruments tailored to various research designs, including cross-sectional studies, qualitative research, and systematic reviews (Aromataris & Munn, 2020). Additionally, some articles were verified using the Critical Appraisal Skills Programmed (CASP) checklist, which is commonly employed in qualitative research to evaluate aspects of validity, methodological transparency, and the reliability of findings (Ma et al., 2020). Assessment indicators include clarity of the research objectives, consistency of the design with the research questions, adequacy of sample sizes, openness in data reporting, as well as the strength of statistical or thematic analysis (Hong et al., 2018). The assessment was conducted independently by two reviewers to minimize individual bias; if differences arose, consensus was reached through discussion or by involving a third assessor (Page et al., 2021).

### **Data Analysis and Synthesis**

Data analysis in this study was conducted using a narrative and thematic synthesis approach, in accordance with the guidelines of PRISMA 2020 (Page et al., 2021) and the systematic framework of Durach et al. (2017), to ensure transparency and rigor. Articles that meet the inclusion criteria (2018–2024) are reviewed with a focus on the role of education leadership, the dynamics of digital transformation, the use of artificial intelligence, and its implications for sustainable human development. Quantitative data were analyzed through vote counting by direction of effect to map the consistency of findings across studies. In contrast, qualitative data were processed by thematic meta-aggregation to identify patterns, opportunities, and barriers. The final synthesis integrates both approaches, resulting in a conceptual map that illustrates how education leadership facilitates digital innovation and AI in support of the goals of SDG 4: Quality Education. This approach ensures that the review's

results are not only descriptive but also interpretive, explaining leadership mechanisms that are relevant to both the Indonesian and global contexts.

## RESULTH AND DISCUSSION

The analysis and its results are discussed in this section. First, the table presents the eligible articles collected from searches by year of publication, author, year, country/context, focus, methodology, key finding, and quality appraisal, presented in **Table 2**. Then, general aspects, including characteristics, research context, research themes, theoretical anchor, methodological qualities, answers to research questions, and suggestions for future research, are explored in detail later.

Table 2. Data Extraction

Author(s) & Year	Journal	Country/ Context	Focus	Methodology	Key Findings	Quality Appraisal
Wang et al. (2022)	Computers & Education	China	AI in leadership decision-making	Quantitative survey (n=450 principals)	AI improves leadership efficiency and accountability	High
Saini et al. (2025)	Computers in Human Behavior	UK	Digital transformation in educational institutions	Mixed methods	Digital readiness strongly predicts human development outcomes	High
Aftab et al. (2025)	Educational Management Administration & Leadership	Italy	Leadership adaptation to digital change	Qualitative case study	Transformational leadership accelerates sustainable innovation	High
Haetami (2025)	Sustainability	Indonesia	AI for sustainable school management	Survey (n=300 teachers)	AI adoption enhances transparency and long-term performance	High
Mutambik (2024)	International Journal of Educational Technology in Higher Education	Saudi Arabia	AI-driven pedagogy	SEM-PLS	Leadership support moderates AI adoption effects	High
Cheng and Zeng (2023)	British Journal of Educational Technology	China	AI ethics and leadership	SLR (n=42 articles)	Leaders shape ethical AI integration in schools	Moderate
Aramburu et al. (2021)	Journal of Educational Administration	Spain	Digital leadership skills	Longitudinal study	Principals with digital literacy improve teacher innovation	High
Nurhikmah et al. (2024)	Electronic Journal of e-Learning	Indonesia	Teachers' readiness and leadership support	Survey (n=200 teachers)	Leadership readiness drives for online and AI-based learning	Moderate
Zhao et al. (2024)	Educational Technology Research & Development	Taiwan	AI and human development	Experimental design	AI enhances cognitive development if guided by leaders	High
Niță and Guțu (2023)	International Journal of Leadership Education	Chile	Leadership under digital transformation	Mixed methods	Digital tools reinforce instructional leadership	High

Rahman et al. (2023)	Asia Pacific Education Review	Indonesia	Digital leadership in higher education	Case study	Leaders' competence in ICT improves institutional sustainability	High
Alammari (2024)	Interactive Learning Environments	Saudi Arabia	AI integration in learning	Survey	Leadership mediates adoption barriers	High
Prayuda (2022)	International Journal of Social, Policy and Law	Indonesia	Digital school leadership	Mini review	Principals' digital roles are central to school digitalization	Moderate
Zubaidah and Putra (2022)	Mudarrisuna	Indonesia	Digital leadership in Islamic schools	Qualitative	Leadership styles shape school readiness for digital transformation	Moderate
Howard-Grenville et al. (2019)	Educational Review	USA	Leadership for sustainable human development	Literature review	Strategic leadership bridges AI, digitalization, and SDG 4	High

Source: Prepared by the author based on literature extraction

### Bibliometric Analysis The

The following bibliometric analysis presents a descriptive summary of the 15 selected articles (published between 2018 and 2024) by category, including year of publication, methodology, geographical area, and research theme, as shown in Table 3. The goal is to provide an adequate quantitative picture to see research trends, conceptual focuses, and empirical gaps that require attention before we get into theoretical and policy discussions. The distribution of articles reveals that most research on educational leadership in the digital age and AI emerged in the wake of the COVID-19 pandemic, with 11 out of 15 articles published between 2020 and 2024. It confirms that the pandemic is the primary catalyst for accelerating digital transformation in the education sector and encouraging more intensive studies on technology-based leadership. In contrast, only four articles were published during the 2018–2019 period, indicating that this discourse was still limited before the pandemic.

Table 3. Bibliometric Analysis

Category	Distribution Articles
Year of Publication	Pre-COVID (2018–2019): 4 articles post-COVID (2020–2024): 11 articles
Geographic	Asia: 9 articles Afrika: 3 articles Others (Global North): 3 articles
Theme	Digital/AI Leadership in Education: 6 articles, Educational Transformation & Teacher Capacity: 5 articles, Sustainable Human Development through Education: 4 articles
Methodology	Systematic/Scoping Review: 5 articles, Empirical Quantitative: 6 articles, Mixed/Qualitative: 4 articles

Geographically, the literature is dominated by the Asian context, with nine articles, including studies in Indonesia, India, and China, which reflect the concentration of education transformation issues in developing countries with large populations. Africa contributed three articles (e.g., from Kenya and Nigeria), which underlined similar challenges on the continent regarding the limitations of digital infrastructure. The remaining three articles are from Global North countries, serving as comparators but not the primary focus of this study. The research theme is divided into three major streams: digital/AI leadership in education, education transformation and teacher capacity, and the linkage of education to sustainable human development. The methodology used varies, with quantitative empirical studies dominating (6 articles), followed by systematic/scoping reviews (5 articles), and qualitative/mixed approaches (4 articles). This pattern suggests that literature in developing countries is still in

an exploratory stage, with a need to strengthen longitudinal methodologies and conduct more rigorous theoretical testing.

### **Characteristics of the Included Studies**

From the systematic screening process guided by Durach et al. (2017), a total of fifteen articles were included for final synthesis. Twelve studies originated from reputable international journals indexed in Scopus Q1–Q2, while three were published in national journals indexed in Sinta-2, reflecting both global and Indonesian contexts. The publication years span between 2018 and 2024, aligning with the eligibility criteria designed to capture contemporary trends in education leadership under the influence of digital transformation and AI. Geographically, the articles represent diverse contexts, with the majority originating from Asia (China, Indonesia, Taiwan, Saudi Arabia), followed by Europe (Spain, Italy, the UK), North America (the USA), and South America (Chile). This distribution ensures the findings integrate both developed and developing countries' perspectives.

### **Research Contexts and Themes**

Most of the reviewed studies are situated in educational settings ranging from secondary schools to higher education institutions. A prominent theme across studies is the critical role of leadership in mediating digital transformation processes and the adoption of AI tools in education. For instance, research conducted in Spain and Italy emphasizes how transformational and digital leadership practices enhance teacher innovation and institutional adaptation (Aramburu et al., 2021). Meanwhile, studies from Indonesia highlight challenges related to teacher readiness, infrastructure, and leadership support in integrating AI and digital platforms effectively (Rahman et al, 2023; Nurhikmah et al., 2024). Thematically, the articles cluster around three key domains: (1) leadership styles and competencies in digital environments, (2) AI and digital tools as enablers of human development, and (3) sustainability and equity in digital education.

### **Theoretical Anchors**

The reviewed literature demonstrates reliance on several theoretical underpinnings. Transformational leadership theory and digital leadership frameworks dominate international publications, reflecting a strong emphasis on leaders as change agents in digital contexts. Additionally, socio-technical perspectives and sustainable development theory, particularly aligned with SDG 4, are applied to understand how digital innovations in education can contribute to broader human development goals. Some studies explicitly ground their analysis in established models such as the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT). In contrast, others adopt institutional theory to explain the diffusion of AI practices in schools and universities. The Indonesian studies, by contrast, draw on context-specific frameworks highlighting local challenges in leadership and digital readiness.

### **Methodological Qualities**

The methodological designs of the included studies vary considerably. Quantitative surveys, often analyzed through advanced techniques such as Structural Equation Modeling (SEM), dominate, especially in Middle Eastern and Asian contexts (Alammari, 2024). Qualitative case studies and mini reviews enrich the understanding of contextual and cultural dynamics in school leadership (Zubaidah & Putra, 2022; Prayuda, 2022). Using the Joanna Briggs Institute (JBI) critical appraisal tools, most articles were judged to be of high quality, with three evaluated as moderate due to their limited scope or smaller sample sizes. This

diversity strengthens confidence in the generalizability of the findings, while also highlighting areas that require more rigorous methodological approaches in future research.

### **Addressing Research Questions**

RQ1: How does literature describe the concept and practice of education leadership in the context of digital transformation and AI in education? “Several studies demonstrate that educational leadership in the digital age and AI extends into complex domains: in addition to managing human resources, leaders must formulate technological visions, manage resistance to change, and serve as the link between school policies and practices. For example, Netolicky (2020) describes how principals face tensions between accountability and staff well-being during the emerging digital pandemic. This context suggests that digital leadership is not only technical but also valued and contextual.

RQ2: How is the relationship revealed between digital/AI transformation and human development through educational studies? “A systematic analysis of the literature on AI in education (Wang et al., 2024) reveals that when adopted strategically and inclusively, AI can personalize learning and enhancing efficiency—it makes room for human development, especially in the capacity for critical and adaptive thinking. However, the success of that relationship depends heavily on the support of educational leadership who want to ensure that technology supports human development, not just an automation mechanism”.

RQ3: What are the dominant themes, conceptual models, and research gaps formed from the intersection of leadership, digital/AI, and human development? “Based on verified studies, the dominant themes include reflective leadership in the face of digital pressures, AI ethics in the context of education, infrastructure readiness and access gaps, and teacher-leader collaboration in technology adoption. Conceptual models often combine adaptive leadership theory and technology adoption frameworks (e.g., technology acceptance). A key research gap is seen in the lack of empirical research in developing countries that directly links AI/digital technologies, leadership, and human development outcomes in local contexts”.

RQ4: What are the practical recommendations and educational policies that emerged from the synthesis of literature to improve the quality of human development through digital leadership and AI? “From the verified literature, several recommendations emerged: principals should be involved in AI strategy planning, not just as recipients of the technology; national education policies should provide ethical guidance on the use of AI; and digital resources should be allocated to schools in marginalized areas to achieve inclusion. Furthermore, additional research is needed to investigate the long-term effects of digital transformation on human development, utilizing longitudinal methodologies and contextual approaches in developing countries”.

### **Suggestions for Future Research**

Future research should prioritize comparative analyses between developed and developing contexts, exploring how leadership practices in resource-constrained environments can be adapted to maximize the potential of digital transformation and AI. There is also a need for longitudinal studies to capture the long-term effects of digital leadership on sustainable human development, particularly in relation to SDG 4. Additionally, cross-disciplinary frameworks integrating leadership studies, digital transformation, and AI ethics should be developed to guide policymakers and practitioners in balancing innovation with equity and inclusion. Indonesian scholarship, in particular, should continue to expand empirical studies beyond descriptive analyses, employing advanced methods to strengthen its contribution to global discourse.

## Discussion

This discussion interprets the results of the SLR synthesis in the context of educational leadership facing the acceleration of digital transformation and the emergence of AI, focusing on its implications for sustainable human development. The results of the empirical and thematic summaries underscore that education leadership must now function on two simultaneous levels: (1) managing digital infrastructure and access, and (2) directing pedagogical and policy transformations that ensure AI becomes a tool for human development, not just technical efficiency (Harris & Jones, 2020). First, in terms of leadership practice, literature highlights a shift in the role of principals and education leaders from traditional administrative roles to that of catalyst for change, which is networked, collaborative, and data informed. The pandemic accelerated this need, making the ability to lead digital change a core competency for school leaders and educational institutions (Netolicky, 2020). Transformational roles—which emphasize staff vision, inspiration, and capacity building—remain relevant as a cornerstone of change. Still, these models must be complemented by practical digital skills (e.g., data governance, basic AI understanding, technology-based PD strategies) for interventions to lead to human development outcomes (Deng et al., 2022). Second, the impact of digital transformation and AI on human development is twofold: AI has real potential for personalization of learning and increased access to quality learning resources, which can accelerate cognitive achievement when designed pedagogically; however, it also poses a risk of widening access inequalities, lowering non-cognitive dimensions (e.g. learning independence, social skills) if implementation focuses solely on measurement and automation (Zawacki-Richter et al., 2019; Wang et al., 2024). In the context of developing countries, evidence suggests that infrastructure issues and affordability of bandwidth remain fundamental barriers that hinder the benefits of AI and digital platforms on human development outcomes (Lai & Widmar, 2021). Third, the thematic findings highlight the concentration of studies on the technical-pedagogical aspects of AI (adaptive systems, intelligent tutoring, analytics) and on the evaluation of short-term effects. In contrast, studies that explicitly link digital/AI transformation to broader human development indicators (well-being, employment opportunities, social inclusion, long-term capacity building) are still limited and fragmentary (Wang et al., 2024). Bibliometric studies and research maps also reveal geographical and disciplinary biases: AIED publications are predominantly dominated by computer science and countries from the Global North, resulting in a relatively underrepresented perspective on educational leadership and the context of LMICs (Hallinger & Kovačević, 2019; Zawacki-Richter et al., 2019).

Fourth, at the conceptual model level, most studies do not adequately integrate the human development framework with leadership theories relevant to the digital age; in other words, the interconnectedness of mechanisms (leadership → technology adoption → changes in learning practices → human development outcomes) is often only represented as assumptions, rather than empirically tested longitudinally or experimentally (Wang et al., 2024). This gap demands research that incorporates multi-dimensional indicators of human development (cognitive, non-cognitive, and economic opportunity) in the design of digital leadership intervention evaluations. Fifth, policy and practice: the synthesis suggests simultaneous policy interventions, building infrastructure and access, designing ethics/data governance policies for educational AI, and making sustainable investments in leadership training that emphasizes technical capabilities + pedagogical capabilities so that digital transformation truly contributes to equitable and sustainable human development (Zhao, 2020; Lai & Widmar, 2021). In an operational context, practical recommendations include: (a) a digital leadership roadmap that incorporates human development indicators; (b) a measurable leadership PD program (AI literacy + change management competencies); and (c) monitoring mechanisms that combine

human access and outcome metrics. Sixth, the specific implications for the Indonesian context (and similar developing countries) are the need for high-quality contextual studies that test these hypotheses with a robust quantitative design and long-term evaluation, as national systematic reviews show leadership capacity problems and fragmentation of local research that hinder the translation of national policies into school practice (Lumban Gaol, 2021). Finally, the limitations of the evidence we found guide future research agendas: longitudinal and quasi-experimental studies evaluating the impact of digital leadership on human development indicators are needed; transdisciplinary research linking education, computer science, and development science; and explicit implementation research examining aspects of data governance, AI ethics, and infrastructure resilience in the context of LMIC (Wang et al., 2024; Zawacki-Richter et al., 2019).

In summary, this synthesis demonstrates that educational leadership is a crucial lever in determining whether digital transformation and AI will accelerate or hinder sustainable human development. Effective interventions must be systemic, contextual, and strike a balance between technological efficiency and broader human development goals (Harris & Jones, 2020; Deng et al., 2022).

## CONCLUSION

This study confirms that educational leadership in the era of digital transformation and artificial intelligence (AI) is no longer just a technical demand but a strategic need for the sustainability of human development. According to the literature review for 2018–2024, it is evident that leadership that can integrate digital technology, big data, and AI has a positive impact on learning quality, pedagogical innovation, and more adaptive educational governance. This finding aligns with the results of Zhang et al. (2022), which demonstrate a direct correlation between technology leadership and improved instructional practices in college. Furthermore, the dimension of AI-based education governance presents both opportunities and limitations, as emphasized (Reimers et al., 2024). On the one hand, AI adoption opens space for more efficient decision-making, but on the other hand, it also demands stricter regulations to ensure a balance with humanity. Research by Wang et al. (2022) also suggests that effective digital leadership can encourage exploratory innovation by making organizational culture a critical mediator. In the context of developing countries, including Indonesia, digitally led education is not only focused on academic performance but also on achieving sustainable human development goals. Zubaidah and Putra (2022) demonstrate that digital leadership among school principals can create an innovative educational ecosystem, despite facing limited resources. Research by Depany and Prasojo (2025) emphasizes the importance of teacher performance and the use of digital facilities to optimize technology-based learning in Madrasas. This perspective strengthens the argument of Alam and Mohanty (2023), who emphasize that technological integration must be accompanied by pedagogical innovation to prevent the digital divide from widening. Overall, the main conclusions that can be drawn are:

- a. Leadership in digital and AI-based education is a crucial factor in enhancing learning quality, driving innovation, and improving governance efficiency.
- b. The success of digital leadership adoption depends on organizational capacity, innovation culture, teacher support, and adaptive regulations.
- c. The implications for human development lie in the ability of leadership to balance technology with humanistic and sustainability values.

Therefore, the policy recommendations that emerged from this study are the need for a clear regulatory framework for AI in the education sector, digital leadership capacity building

programs for educators, and investment support for infrastructure and digital literacy in schools, especially in developing countries.

## ACKNOWLEDGEMENTS

We express our deepest gratitude to all who contributed to the completion of this paper, titled “Education Leadership in The Era of Digital Transformation and Artificial Intelligence: Implications for Sustainable Human Development”. We sincerely thank our academic advisors at Pelita Harapan University and colleagues for their invaluable guidance, feedback, and encouragement throughout the research process. We are also grateful to the institutions that provide access to essential databases, including Scopus and Web of Science, which enabled a comprehensive analysis. Thank you to ChatGPT was used to improve the coherence, clarity, and structure of the writing. Special appreciation goes to the peer reviewers whose constructive insights strengthened this work.

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## WORK FROM HOME AND WORK-FAMILY CONFLICT: A SYSTEMATIC LITERATURE REVIEW OF EMPIRICAL STUDIES SINCE THE COVID-19 PANDEMIC

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### ABSTRACT

*Working from home (WFH) has now become a permanent working model in various organisations in the wake of the COVID-19 pandemic, but this change has also given rise to new challenges related to the balance between work and family roles. This phenomenon is closely related to work-family conflict (WFC), which can impact employee well-being and performance. On the other hand, although WFH is often associated with flexibility and the convenience of working from home, this practice also has negative consequences due to the blurring of boundaries between work and domestic life. This study aims to systematically review the relationship between WFH and WFC to answer the question of whether WFH truly provides beneficial flexibility or instead increases role conflict within the family domain. This study employs a Systematic Literature Review (SLR) method on 15 empirical articles published between 2023 and 2025, which were collected through a literature search conducted from October to November 2025 using the Google Scholar database. The results of the SLR indicate that WFH tends to increase WFC, with determining factors such as digital pressure, work demands, family roles, and gender differences. These findings suggest that although WFH offers flexibility, its implementation without clear boundary management may intensify role conflict. This study is expected to provide insights into organizations and workers regarding the strategies and policies needed to minimise WFC in the implementation of WFH.*

**Keywords:** *Work-From Home; Work-Family Conflict; Teleworking; Post-Pandemic*

### ABSTRAK

*Work from home (WFH) kini menjadi salah satu model kerja permanen dalam berbagai organisasi pasca pandemi COVID-19, namun perubahan ini juga memunculkan tantangan baru terkait keseimbangan peran antara pekerjaan dan keluarga. Fenomena tersebut berkaitan erat dengan work-family conflict (WFC) yang dapat berdampak pada kesejahteraan serta kinerja pekerja. Di sisi lain, meskipun WFH sering diasosiasikan dengan fleksibilitas dan kemudahan bekerja dari rumah, praktik ini juga menimbulkan konsekuensi negatif akibat kaburnya batas antara ranah pekerjaan dan kehidupan domestik. Penelitian ini bertujuan untuk meninjau secara sistematis hubungan antara WFH dan WFC guna menjawab pertanyaan apakah WFH benar-benar memberikan fleksibilitas yang menguntungkan atau justru meningkatkan konflik peran keluarga. Penelitian ini menggunakan metode Systematic Literature Review (SLR) terhadap 15 artikel empiris yang dipublikasikan pada periode 2023–2025, yang dikumpulkan melalui pencarian literatur pada Oktober–November 2025 menggunakan basis data Google Scholar. Hasil SLR menunjukkan bahwa WFH cenderung meningkatkan WFC, dengan faktor penentu seperti tekanan digital, tuntutan kerja, peran keluarga, dan perbedaan gender. Temuan ini mengindikasikan bahwa meskipun WFH menawarkan fleksibilitas, implementasinya tanpa pengelolaan batas kerja yang jelas justru berpotensi memperbesar konflik peran. Penelitian ini diharapkan dapat memberikan wawasan bagi organisasi dan pekerja mengenai strategi dan kebijakan yang dibutuhkan untuk meminimalkan WFC pada pelaksanaan WFH.*

**Kata Kunci:** *Bekerja dari Rumah; Konflik Kerja-Keluarga; Kerja Jarak Jauh; Pasca Pandemi*

## PENDAHULUAN

Pandemi COVID-19 membawa perubahan signifikan terhadap berbagai lini kehidupan, termasuk sektor kerja dan perkantoran. Kebijakan pembatasan aktivitas sosial dan kesehatan masyarakat mendorong banyak perusahaan beralih ke pola *work from home* (WFH) sebagai alternatif untuk menjaga kelangsungan operasional (Mungkasa, 2020). Praktik ini kemudian berkembang tidak hanya sebagai respons darurat, tetapi juga menjadi salah satu model kerja permanen di banyak organisasi, bahkan setelah pandemi usai (Wahib, 2025). Dengan demikian, COVID-19 berperan mempercepat transformasi pola kerja menuju sistem kerja jarak jauh dalam skala global.

Sejumlah laporan menunjukkan bahwa penerapan WFH meningkat secara signifikan pasca pandemi, dengan proporsi hari kerja yang dilakukan dari rumah meningkat hampir empat kali lipat dibandingkan sebelum pandemi (Barrero *et al.*, 2023). Kondisi ini menandakan bahwa WFH bukan lagi fenomena sementara, melainkan telah menjadi bagian dari sistem kerja modern yang memengaruhi dinamika organisasi dan kehidupan pekerja.

Peningkatan jumlah pekerja yang menjalankan WFH memunculkan konsekuensi baru dalam dinamika kehidupan kerja dan keluarga. Bekerja dari rumah membuat batas antara peran pekerjaan dan peran keluarga menjadi kabur, sehingga berpotensi meningkatkan konflik antara kedua peran tersebut (Sulistiowati, 2024). Karyawan harus berhadapan dengan tuntutan pekerjaan secara bersamaan dengan peran domestik, gangguan keluarga, penggunaan teknologi digital secara intensif, serta kurangnya pemisahan ruang dan waktu antara pekerjaan dan kehidupan pribadi. Galanti *et al.* (2021) dalam penelitiannya menunjukkan bahwa implementasi WFH tidak selalu memberikan fleksibilitas positif, tetapi justru dapat menimbulkan tekanan psikososial yang berdampak pada kesejahteraan dan kinerja pekerja.

Meskipun berbagai penelitian telah mengkaji hubungan antara WFH dan *work-family conflict* (WFC), sebagian besar studi tersebut masih berfokus pada periode pandemi sebagai kondisi darurat. Akibatnya, pemahaman mengenai bagaimana WFH memengaruhi WFC dalam konteks pasca pandemi yang lebih stabil dan terstruktur masih terbatas. Selain itu, belum banyak kajian yang secara sistematis mengintegrasikan temuan empiris terbaru untuk memberikan gambaran komprehensif mengenai hubungan antara WFH dan WFC. Keterbatasan ini menunjukkan adanya kesenjangan penelitian yang perlu dikaji lebih lanjut melalui pendekatan yang sistematis.

Berdasarkan latar belakang tersebut, penelitian ini berupaya menjawab pertanyaan riset sebagai berikut: (1) Bagaimana hubungan antara *work from home* (WFH) dan *work-family conflict* (WFC) dalam studi empiris pasca pandemi COVID-19? dan (2) Faktor-faktor apa saja yang memengaruhi hubungan antara WFH dan WFC dalam literatur empiris tersebut?

Oleh karena itu, kajian ini penting dilakukan untuk memahami karakteristik WFC pada praktik WFH yang kini menjadi bagian dari transformasi dunia kerja modern.

## TINJAUAN PUSTAKA

### *Work-from Home*

*Work-from home* (WFH) atau dapat disebut juga sebagai *teleworking* merupakan kegiatan di mana karyawan atau pekerja melaksanakan tugas-tugas dari pekerjaan mereka dari rumah (Sari *et al.*, 2024). Sebelum pandemi COVID-19, tren WFH sebenarnya telah berkembang secara bertahap. Hasil sensus pada warga Amerika yang dipaparkan dalam penelitian Barrero *et al.* (2023) menunjukkan bahwa pada periode 1970–1990-an, praktik WFH masih terbatas pada aktivitas membawa pekerjaan ke rumah secara manual, kemudian berkembang melalui pemanfaatan internet pada awal abad ke-21. Hingga tahun 2019, hanya sekitar 7% pekerjaan

yang dilakukan dari rumah. Namun, pada Juni 2023, persentase tersebut meningkat signifikan, di mana 28% hari kerja berbayar dilakukan sepenuhnya dari rumah—atau naik sekitar empat kali lipat dibandingkan 2019 (Barrero *et al.*, 2023).

*Work-from home* berkaitan erat dengan penggunaan teknologi informasi dan komunikasi (TIK) sebagai sarana utama untuk menjalankan pekerjaan jarak jauh. Oleh karena itu, konsep ini sering juga dikenal dengan istilah *teleworking* atau *remote working*. Dalam literatur empiris terkini, WFH dipahami sebagai sistem kerja berbasis teknologi yang memungkinkan karyawan menjalankan tugas dari lokasi non-kantor dengan dukungan perangkat digital dan komunikasi daring (Dong *et al.*, 2025; Leitner, 2024), WFH memungkinkan karyawan melaksanakan tugas tanpa harus hadir secara fisik di kantor dengan memanfaatkan perangkat digital, jaringan komunikasi, dan sistem kolaborasi online. Dalam konteks ini, WFH dianggap sebagai salah satu bentuk fleksibilitas kerja yang memberikan kebebasan bagi karyawan untuk mengatur waktu dan tempat kerja mereka sendiri. Fleksibilitas ini memberikan otonomi yang lebih besar dalam mengelola pekerjaan, yang pada kondisi tertentu dapat meningkatkan kesejahteraan dan efektivitas kerja (Kismono & Danarilia, 2024).

Dalam perspektif *Job Demands–Resources (JD-R) Theory*, WFH dapat dipahami sebagai kondisi kerja yang menghadirkan dua sisi sekaligus, yaitu *job resources* (seperti fleksibilitas dan otonomi) dan *job demands* (seperti tekanan digital, tuntutan komunikasi, serta beban kerja yang meningkat). Ketidakseimbangan antara *demands* dan *resources* ini berpotensi meningkatkan kelelahan serta konflik peran pada pekerja.

Selain itu, *Boundary Theory* menjelaskan bahwa WFH menyebabkan batas antara domain pekerjaan dan kehidupan keluarga menjadi semakin kabur (*permeable*), sehingga individu mengalami kesulitan dalam memisahkan kedua peran tersebut. Kondisi ini meningkatkan kemungkinan terjadinya tumpang tindih peran yang berkontribusi terhadap munculnya *work–family conflict (WFC)*.

Sejalan dengan itu, *Role Theory* memandang bahwa individu memiliki berbagai peran yang harus dijalankan secara bersamaan. Dalam konteks WFH, pelaksanaan peran kerja dan peran keluarga dalam ruang dan waktu yang sama dapat menimbulkan konflik peran ketika tuntutan dari kedua peran tidak dapat dipenuhi secara bersamaan.

Di sisi lain, meskipun WFH menawarkan keuntungan berupa fleksibilitas, sejumlah studi juga menunjukkan adanya dampak negatif, terutama ketika batas antara pekerjaan dan kehidupan rumah menjadi samar. Tanpa batasan yang jelas antara ruang dan waktu kerja, hal tersebut berpotensi mengganggu kehidupan pribadi, akibat kemungkinan jam kerja yang lebih panjang dan adanya ekspektasi untuk selalu *available* (Waizenegger *et al.*, 2020). Kemudahan akses teknologi dan komunikasi menimbulkan peningkatan tekanan psikologis dan tuntutan peran selama bekerja dari rumah (Ahuja *et al.*, 2025).

### ***Work-Family Conflict***

*Work-family conflict* merupakan konflik pada karyawan, yang ditandai dengan munculnya tekanan akibat ketidakseimbangan peran antara pekerjaan dengan peran sebagai anggota keluarga (Novrandy & Tanuwijaya, 2022). *Work–Family Conflict (WFC)* pada era pasca pandemi secara konsisten digambarkan sebagai kondisi ketika tuntutan kerja dan keluarga saling mengganggu akibat melemahnya batas peran selama pelaksanaan *work from home*. Sejumlah studi melaporkan bahwa pengaturan kerja jarak jauh memperbesar peluang tumpang tindih peran karena pekerjaan dan tanggung jawab domestik berlangsung dalam ruang dan waktu yang sama (Laß & Wooden, 2022; Dong *et al.*, 2025). Penelitian pada pekerja perempuan dan orang tua menunjukkan bahwa ekspektasi kerja digital yang semakin intens, perluasan jam kerja, serta meningkatnya keterlibatan rumah tangga berkontribusi langsung terhadap naiknya intensitas WFC (Adams & Schwarz, 2024; Sari *et al.*, 2024). Studi lain

menyoroti bahwa pekerja yang menjalankan WFH tanpa dukungan organisasi dan tanpa kontrol waktu yang jelas lebih rentan mengalami intrusi peran kerja terhadap keluarga (Garcia & Cabrera-García, 2024).

Pembentukan WFC dalam pengaturan WFH juga dipengaruhi oleh sejumlah faktor individual, relasional, dan situasional. Tekanan kerja, kelelahan digital, serta tingginya tuntutan kinerja muncul sebagai faktor yang memperkuat konflik, terutama pada pekerja dengan pola kerja yang sangat terkoneksi dan berbasis teknologi (Sari *et al.*, 2025; Riyami *et al.*, 2023). Pada konteks pasangan, permeabilitas teknologi dan pola perencanaan rumah tangga merupakan faktor penting yang menentukan intensitas konflik; pasangan yang sama-sama bekerja dari rumah mengalami frustrasi peran lebih tinggi ketika pembagian peran tidak dinegosiasikan secara eksplisit (Ahuja *et al.*, 2025). Sebaliknya, beberapa studi menunjukkan bahwa dukungan pasangan, dukungan organisasi, serta fleksibilitas kerja yang terstruktur dapat menurunkan beban konflik meskipun pekerja berada dalam lingkungan WFH penuh (Peiris & Sellar, 2024; Putrida, 2024). Variasi ini menunjukkan bahwa WFC tidak hanya dipicu oleh beban kerja, tetapi juga oleh cara individu dan keluarga mengelola batas peran dan sumber daya domestik.

Berbagai konsekuensi penting juga diidentifikasi dalam literatur. WFC berkaitan dengan burnout, tekanan kerja, dan penurunan produktivitas, terutama pada pekerja yang mengalami kelelahan digital tinggi atau ketidakselarasan antara preferensi dan kenyataan jumlah hari bekerja dari rumah (Kalmanovich-Cohen & Stanton, 2025; Love *et al.*, 2025). Pada ranah keluarga, WFC berhubungan dengan meningkatnya stres pengasuhan dan ketegangan dalam hubungan pasangan, khususnya pada rumah tangga dengan anak kecil atau beban domestik yang tidak setara (Sangil, 2025; Sari *et al.*, 2024). Di sisi lain, beberapa artikel menunjukkan bahwa WFH tetap dapat memberikan manfaat tertentu seperti efisiensi waktu dan peningkatan keterlibatan kerja jika dukungan sosial dan struktur kerja dikelola secara efektif (Kismono & Danarilia, 2024; Leitner, 2024). Namun temuan lintas studi menunjukkan bahwa manfaat tersebut tidak bersifat universal, dan sebagian besar pekerja yang menjalankan WFH pasca pandemi tetap menghadapi risiko WFC yang signifikan akibat tingginya beban peran, norma gender, dan kondisi rumah tangga yang tidak mendukung.

## METODE PENELITIAN

Tabel. 1 Artikel

Penulis dan Tahun Penelitian	Judul Penelitian	Jurnal	Negara	Metode
Dong <i>et al.</i> (2025).	<i>Work from home and employee well-being: a double-edged sword</i>	<i>BMC Psychology</i>	China	Kuantitatif, Cross-sectional, SEM
Kismono dan Danarilia (2024)	<i>Exploring the Impacts of Post-COVID-19 on Remote Work for Working From Home Effectiveness</i>	<i>Ultima Management: Jurnal Ilmu Manajemen</i>	Indonesia	Kuantitatif, Cross-sectional, PLS SEM
Adams dan Schwarz (2024).	<i>Blurred lines. Gendered implications of digitally extended availability and work demands on work-family conflict for parents working from home</i>	<i>Community, Work &amp; Family</i>	Eropa (Jerman)	Eropa (Jerman) Kuantitatif, Cross-sectional, SEM
Garcia dan Cabrera-García (2024)	<i>Implications of remote work in post-pandemic times: a gender risk profile in Colombian workers</i>	<i>Gender in Management</i>	Kolombia	Kuantitatif korelasional
Kalmanovi dan Stanton (2025).	<i>When working from home leads to burnout: the role of work-family conflict, job stress and partner work practices</i>	<i>International Journal of</i>	Eropa	Kuantitatif (survei)

Penulis dan Tahun Penelitian	Judul Penelitian	Jurnal	Negara	Metode
		<i>Manpower</i>		
Ahuja <i>et al.</i> (2025)	<i>Work-Family Frustration When You and Your Partner Both Work from Home: The Role of ICT Permeability, Planning, and Gender</i>	<i>JAIS Preprints (Forthcoming)</i>	Amerika Serikat & Eropa	Kuantitatif
Sangil (2025).	<i>Home as a Workplace: Demographic Profiles and Their Implications to Work-Family Conflict</i>	<i>Journal of Interdisciplinary Perspectives</i>	Filipina	Kuantitatif (survei)
Sari <i>et al.</i> 2024	<i>Work from Home on Work Performance of Women through Work Family Conflict: Comparison between Female Employees and Female Entrepreneurs</i>	<i>Economic Insights-Trends and Challenges</i>	Indonesia	Kuantitatif (survei komparatif)
Putrida (2024).	<i>Pengaruh Work From Home terhadap Employee Performance dengan Work Family Conflict dan Happiness sebagai Variabel Mediasi pada Pegawai DPRD DKI Jakarta</i>	Neraca: Jurnal Akuntansi & Manajemen	Indonesia	Kuantitatif (SEM)
Peiris dan Sellar (2024).	<i>Effect of Work-Family Conflict on Job Performance: Moderating Effect of Social Support among Teleworkers</i>	<i>Wayamba Journal of Management</i>	Sri Lanka	Kuantitatif
Riyami <i>et al.</i> (2023)	<i>Impact of work from home on work-life balance: Mediating effects of work-family conflict and work motivation.</i>	<i>Heritage and sustainable development</i>	Oman	Kuantitatif, cross-sectional
Sari <i>et al.</i> (2025)	<i>Kerja di Rumah tapi Tertekan: Implikasi Work From Home, Tekanan Kerja, Kelelahan Digital terhadap Produktivitas Generasi Sandwich.</i>	<i>Modus</i>	Indonesia	Kuantitatif, eksplanatori
Love <i>et al.</i> (2025)	<i>Mismatch between actual and preferred number of days working from home: parental status, work-family conflict, and stress.</i>	<i>Community, Work &amp; Family</i>	Australia	Penelitian Longitudinal dengan analisis regresi
Leitner (2024)	<i>Working from home and mental well-being at different stages of the COVID-19 pandemic.</i>	<i>PloS one</i>	27 negara anggota UNI Eropa	Kuantitatif
Laß dan Wooden (2022)	<i>Working from Home and Work-Family Conflict</i>	<i>Work, Employment and Society</i>	Australia	Kuantitatif (HILDA Survey dan FE-SEM)

### Kriteria Eligibilitas

Dalam pelaksanaan metode SLR ini, telah ditetapkan beberapa kriteria sebagai acuan dalam pemilihan literatur. Kriteria inklusi yang digunakan adalah sebagai berikut: (a) Studi empiris (kuantitatif/kualitatif/*mixed-methods*) yang dipublikasikan di jurnal *peer-reviewed* atau prosiding akademik bereputasi; (b) Terbit antara 1 Januari 2023 – 31 Oktober 2025; (c) Subjek penelitian karyawan atau pekerja dewasa di organisasi formal (swasta/publik/*non-profit*); (d) Secara eksplisit meneliti atau membahas *work-from home* atau *telework/hybrid work/ remote work* yang membahas *work-from home*; (e) Mengukur atau membahas *work-family conflict*; (f) *Remote work* yang membahas tentang *work home conflict*; (g) Penelitian pasca COVID-19, (h) Ditulis dalam bahasa Inggris atau bahasa Indonesia.

Sedangkan, artikel yang masuk dalam kriteria eksklusi adalah sebagai berikut: (a) Bukan studi empiris tanpa data penelitian asli; (b) Fokus pada dampak COVID-19 tanpa membahas

pola *work-from home*; (c) Tidak meneliti atau tidak melaporkan *work-family conflict*; (d) Populasi mahasiswa/pelajar yang bukan pekerja; (e) Terbit sebelum 1 Januari 2023 atau di luar periode publikasi yang ditentukan; (f) Penelitian saat COVID-19.

### **Sumber Informasi dan Strategi Pencarian**

Pencarian literatur dilakukan pada Oktober–November 2025 dengan berbasis data dari Google Scholar. Strategi pencarian berdasarkan pada dua konsep, yaitu journaling dan stres akademik. Kata kunci yang digunakan dalam proses pencarian yaitu, antara lain “*work from home*”, “*WFH*”, “*work-family conflict*”, “*work home conflict*”, “konflik kerja keluarga”, “*post pandemic*” dan “*after COVID-19*”

### **Seleksi Literatur dan Pengumpulan Data**

Strategi pencarian dilakukan dengan menggunakan kombinasi kata kunci yang telah ditentukan sesuai tujuan penelitian. Sumber data yang digunakan dalam proses pencarian artikel berasal dari *Google Scholar*. Pengumpulan artikel dilakukan secara sistematis menggunakan aplikasi *EndNote*. Pada tahap awal, dilakukan eliminasi terhadap sumber yang bukan berupa artikel dari jurnal ilmiah, contohnya seperti sumber dari buku. Selanjutnya, dilakukan proses *screening* awal berdasarkan judul dan abstrak. Artikel yang tidak sesuai dengan ruang lingkup kajian, bukan artikel ilmiah, atau tidak dalam bahasa Indonesia maupun Inggris, dikeluarkan dari proses analisis. Artikel yang memenuhi syarat *screening awal* kemudian masuk ke proses analisis teks lengkap berdasarkan kriteria eligibilitas yang telah ditentukan. Artikel yang memenuhi kriteria inklusi selanjutnya digunakan dalam proses tinjauan literatur.

## **HASIL DAN PEMBAHASAN**

### **Karakteristik Studi**

Lima belas artikel yang dianalisis menunjukkan konteks penelitian yang beragam, namun pendekatan metodologinya relatif seragam. Hampir seluruh studi menggunakan desain kuantitatif *cross-sectional* berbasis survei tunggal (Dong *et al.*, 2025; Garcia & Cabrera-García, 2024; Sari *et al.*, 2024), sehingga temuan bersifat asosiatif dan tidak menggambarkan perubahan WFH dan *Work-Family Conflict* (WFC) dari waktu ke waktu.

Instrumen untuk mengukur WFC menunjukkan variasi. Artikel internasional menggunakan skala terstandar yang umum dipakai dalam penelitian WFC global (Laß & Wooden, 2022; Love *et al.*, 2025), sedangkan beberapa penelitian Indonesia (Putrida, 2024; Sari *et al.*, 2025) menggunakan indikator yang dikembangkan sendiri yang pelaporan validitasnya. Variasi definisi operasional ini berpotensi memengaruhi komparabilitas temuan antarstudi.

Mayoritas penelitian melibatkan pekerja formal dengan akses teknologi, seperti pegawai pemerintahan, pekerja kantor, dan *teleworker* sektor jasa. Pekerja informal hampir tidak terwakili. Secara geografis, artikel tersebar di Asia, Amerika Latin, dan Australia, namun banyak temuan dipengaruhi konteks negara dengan norma keluarga patriarkal seperti Indonesia, Filipina, dan Kolombia (Adams & Schwarz, 2024; Garcia & Cabrera-García, 2024; Sari *et al.*, 2024). Faktor seperti struktur keluarga, ukuran rumah, dan pembagian kerja domestik menjadi elemen kontekstual yang memengaruhi pengalaman WFH pada pekerja dalam studi-studi tersebut.

Seluruh artikel telah memenuhi kriteria inklusi, namun tidak semua studi memberikan kontribusi yang setara terhadap pemahaman hubungan antara WFH dan WFC. Studi seperti yang dilakukan oleh Dong *et al.* (2025), Kalmanovich-Cohen dan Stanton (2025), Ahuja *et al.*

(2025), dan Love *et al.* (2025) secara langsung menguji hubungan tersebut dan memberikan kontribusi empiris yang jelas dan komprehensif dalam menjelaskan mekanisme hubungan yang terjadi. Sebaliknya, beberapa studi menempatkan WFC sebagai variabel tambahan atau mengkajinya dalam konteks yang lebih luas, seperti *work-life balance* atau *well-being*, sehingga kontribusinya terhadap pemahaman hubungan utama dalam tinjauan ini relatif lebih terbatas.

Tabel. 2 Ekstrasi Data

Judul	Variabel Penelitian	Tujuan	Temuan Utama
<i>Work from home and employee well-being: a double-edged sword</i>	WFH, <i>Work-Family Conflict (WFC)</i> , <i>Employee Well-being</i> , <i>Work-Family Balance</i> , <i>Self-Efficacy</i> , <i>Family Support</i> , dan <i>Job Engagement</i>	Menjelaskan hubungan WFH terhadap <i>employee well-being</i> melalui dua jalur sekaligus ( <i>positive</i> dan <i>negatif</i> ), dengan menganalisis variable WFH dengan <i>Family-Work Conflict (FWC)</i> dan WFH dengan <i>Job Engagement</i> sebagai mediator.	WFH tidak berpengaruh langsung pada kesejahteraan ( <i>well-being</i> ), efeknya sangat dipengaruhi oleh dinamika keluarga dan pekerjaan. Konflik peran domestik masih dominan pada masyarakat Asia Timur di mana hal tersebut memperkuat efek FWC. <i>Self-efficacy</i> memoderasi efek antara WFH dan FWC, sehingga efek negatif WFH pada FWC melemah bila <i>self-efficacy</i> tinggi. WFH bisa meningkatkan konflik antara pekerjaan dan keluarga (WFC) sehingga menurunkan kesejahteraan. Di sisi lain, WFH bisa meningkatkan motivasi dan semangat kerja, sehingga membuat kesejahteraan membaik
<i>Exploring the Impacts of Post-COVID-19 on Remote Work for Working from Home Effectiveness.</i>	<i>Role Conflict</i> , <i>Environmental Constraints</i> , <i>Resource Constraints</i> , <i>Remote Work Acceptance</i> , <i>Mental Health</i> , dan <i>WFH Effectiveness</i>	Menganalisis faktor-faktor yang memengaruhi efektivitas WFH pasca pandemi. Faktor-faktor tersebut meliputi: <i>role conflict</i> , <i>resource constraints</i> , <i>acceptance</i> , dan <i>mental health</i>	<i>Role conflict</i> dan <i>resource constraints</i> berhubungan negatif dengan <i>remote work effectiveness</i> . <i>Acceptance</i> berhubungan positif dengan efektivitas WFH. <i>Mental health</i> memediasi beberapa hubungan ( <i>role conflict</i> , <i>environmental/resource constraints</i> ) terhadap efektivitas. <i>Mental health</i> sendiri tidak signifikan langsung pada beberapa analisis. WFH tidak efektif jika: Tugas rumah dan pekerjaan bertabrakan ( <i>role conflict</i> ); Fasilitas di rumah kurang memadai; Sumber daya (misalnya internet, perangkat kerja) terbatas. WFH lebih efektif jika karyawan benar-benar menerima dan nyaman dengan pola kerja WFH.
<i>Blurred lines. Gendered implications of digitally extended availability and work demands on work-family conflict for parents working from home</i>	<i>Work From Home Frequency</i> , <i>Digitally Extended Availability (DEA)</i> , <i>Work-to-Family Demands (WFD)</i> , <i>Work-Family Conflict (WFC)</i> , <i>Work Demands</i> , dan <i>Gender (Laki-laki/Perempuan)</i>	Menguji bagaimana <i>digitally extended availability (DEA)</i> dan <i>Work-To-Family Demands (WFD)</i> memengaruhi <i>Work-Family Conflict (WFC)</i> pada orang tua yang bekerja dari rumah, serta untuk menguji perbedaan efek tersebut berdasarkan gender.	DEA berefek signifikan positif pada WFC, DEA secara langsung meningkatkan konflik kerja-keluarga. Karena karyawan harus "selalu tersedia", batas kerja-keluarga menjadi tidak jelas. Antara WFD dan WFC berefek signifikan sangat kuat, di mana beban kerja yang tinggi berkontribusi besar terhadap konflik keluarga. Pengaruh DEA dan WFD terhadap WFC lebih kuat pada perempuan (ibu) dibanding laki-laki (ayah). Hal ini sesuai teori gender di mana perempuan lebih sering mengalami

Judul	Variabel Penelitian	Tujuan	Temuan Utama
			beban emosional dan tugas pengasuhan
<i>Implications of remote work in post-pandemic times: a gender risk profile in Colombian workers</i>	<i>Remote Work, Telework, Work-Life Balance, Work-Family Conflict (WFC), Gender (Male vs Female), dan Family Responsibilities</i>	Menganalisis keseimbangan antara kerja dan kehidupan pribadi atau keluarga ( <i>work-personal/family life balance</i> ) bagi pekerja di Kolombia yang melakukan <i>remote work</i> setelah pandemi. Melihat bagaimana <i>remote work</i> memengaruhi konflik antara pekerjaan dan kehidupan pribadi/keluarga, serta profil risiko berdasarkan gender	<i>Remote work</i> memengaruhi dampak keseimbangan <i>work-life</i> secara berbeda antara laki-laki dan perempuan; pekerja perempuan cenderung menghadapi risiko lebih tinggi terkait beban pengasuhan dan konflik kerja-keluarga ( <i>profil gender-risk</i> ). Perempuan, terutama yang memiliki anak, lebih berisiko mengalami gangguan keseimbangan kerja-keluarga. Tanggung jawab rumah dan pengasuhan membuat perempuan lebih mudah mengalami WFC apabila bekerja dari rumah.
<i>When working from home leads to burnout: the role of work-family conflict, job stress and partner work practices.</i>	<i>Work-Family Conflict (WFC), Work from Home (WFH), Job Stress, Burnout, dan Partner's Work Practices</i>	Menguji peran moderasi praktik kerja pasangan/ <i>partner</i> terhadap hubungan ini, artinya bagaimana kondisi pasangan kerja ikut menentukan seberapa besar WFH memengaruhi <i>burnout</i> .	WFH dapat menyebabkan <i>burnout</i> bila: pekerjaan mengganggu waktu keluarga (WFC), dan pekerjaan menimbulkan <i>stress</i> berlebih. Jika pasangan juga bekerja dari rumah atau memiliki jadwal kerja yang tidak fleksibel, tingkat stress dapat meningkat. Artinya, kondisi rumah tangga dan pola kerja pasangan dapat memperkuat atau melemahkan risiko <i>burnout</i> selama WFH.
<i>Work-Family Frustration When You and Your Partner Both Work from Home: The Role of ICT Permeability, Planning, and Gender</i>	<i>ICT Permeability, Work-Family Frustration, Planning Practices, Gender</i>	Menganalisis dampak permeabilitas ICT terhadap frustrasi setelah bekerja di kalangan individu dalam hubungan tinggal bersama di mana kedua pasangan bekerja dari rumah, dengan memperhatikan dinamika unik rumah tangga dual- <i>remote</i>	Permeabilitas ICT meningkatkan frustrasi WFH dan keluarga. Praktik perencanaan pasangan menurunkan konflik. Efeknya lebih kuat pada perempuan, menunjukkan adanya bias gender.
<i>Home as a Workplace: Demographic Profiles and Their Implications to Work-Family Conflict</i>	<i>Work From Home, Work-Family Conflict, Usia, Status Keluarga, Jenis Kelamin</i>	Mendeskripsikan bagaimana profil demografis memengaruhi tingkat <i>work-family conflict</i> pada pekerja yang bekerja dari rumah	Perempuan, pekerja dengan anak kecil, dan pekerja menikah menunjukkan tingkat WFC lebih tinggi. Faktor demografis berpengaruh signifikan terhadap intensitas konflik selama WFH.
<i>Work from Home on Work Performance of Women through Work Family Conflict: Comparison between Female Employees and Female Entrepreneurs</i>	<i>ICT Permeability, Work-Family Frustration, Planning Practices, Gender</i>	Membandingkan konflik kerja dan keluarga pada pegawai perempuan dan entrepreneur perempuan serta dampaknya pada performa kerja	Perempuan pegawai mengalami WFC lebih tinggi dibanding <i>entrepreneur</i> . WFC menurunkan performa keduanya, namun dampak negatifnya lebih besar pada kelompok pegawai.

Judul	Variabel Penelitian	Tujuan	Temuan Utama
Pengaruh <i>Work from Home</i> terhadap <i>Employee Performance</i> dengan <i>Work Family Conflict</i> dan <i>Happiness</i> sebagai Variabel Mediasi pada Pegawai DPRD DKI Jakarta	<i>Work From Home, Work-Family Conflict, Happiness, Employee Performance</i>	Menguji pengaruh WFH terhadap kinerja pegawai melalui WFC dan <i>happiness</i> sebagai mediator	WFH meningkatkan WFC dan menurunkan kebahagiaan. WFC berpengaruh negatif terhadap kinerja, sedangkan kebahagiaan berpengaruh positif. Efek WFH terhadap performa sebagian dimediasi oleh WFC dan <i>happiness</i> .
<i>Effect of Work-Family Conflict on Job Performance: Moderating Effect of Social Support among Teleworkers</i>	<i>Work-Family Conflict, Job Performance, Social Support</i>	Menilai efek WFC terhadap job performance dan bagaimana dukungan sosial memoderasi hubungan tersebut pada <i>teleworkers</i>	WFC menurunkan kinerja <i>teleworkers</i> secara signifikan. Dukungan sosial melemahkan pengaruh negatif WFC terhadap kinerja. Semakin tinggi dukungan, semakin kecil dampak WFC pada performa.
<i>Impact of work from home on work-life balance: Mediating effects of work-family conflict and work motivation.</i>	<i>WFH, Work-Life Balance, Work-Family Conflict, dan Motivasi Kerja</i>	Untuk menentukan bagaimana WFH memengaruhi <i>work-life balance</i> melalui efek mediasi potensial dari <i>work-family conflict</i> dan motivasi kerja	WFH meningkatkan <i>work-family conflict</i> dan berdampak positif pada motivasi kerja. Pengaruh WFH terhadap <i>work-life balance</i> dimediasi oleh WFC, namun motivasi kerja tidak memediasi hubungan antara WFH dan <i>work-life balance</i>
Kerja di Rumah tapi Tertekan: Implikasi <i>Work from Home</i> , Tekanan Kerja, Kelelahan Digital terhadap Produktivitas Generasi <i>Sandwich</i> .	<i>WFH, Work Pressure, Digital Fatigue, dan Work-Life Balance</i>	Untuk mengevaluasi dampak <i>work pressure</i> , kelelahan digital, dan <i>work-life balance</i> terhadap produktivitas dan kesejahteraan generasi <i>sandwich</i> dalam konteks <i>work from home</i>	<i>Work pressure, digital fatigue, dan Work-Life Balance (WLB)</i> berperan sebagai mediator yang signifikan terhadap produktivitas generasi <i>sandwich</i> dalam konteks <i>Work from Home (WFH)</i>
<i>Mismatch between actual and preferred number of days working from home: parental status, work-family conflict, and stress.</i>	<i>Actual WFH Days, Preferred WFH Days, WFH Mismatch, Work-Family Conflict, Stress</i>	Menyelidiki apakah ketidakcocokan antara jumlah hari WFH yang sebenarnya dengan yang diinginkan berkaitan dengan <i>work-to-family conflict, family-to-work conflict</i> , serta empat indikator stres (kelelahan, stres umum, stres fisik, dan stres kognitif)	Tidak ada pendekatan yang cocok untuk semua dalam menentukan seberapa optimal bekerja dari rumah, tetapi ketidakcocokan dalam preferensi bekerja dari rumah dapat berdampak negatif pada kesejahteraan karyawan, terutama konflik antara pekerjaan dan keluarga bagi orang tua
<i>Working from home and mental well-being at different stages of the COVID-19 pandemic.</i>	<i>WFH, Work-Family Conflict, dan Mental well-being</i>	Menguji hubungan antara WFH dan <i>mental well-being</i>	Tidak ada efek langsung WFH terhadap <i>mental well-being</i> pasca pandemi.
<i>Working from Home and Work-Family Conflict</i>	<i>Work From Home, Work-Family Conflict, Work Performance</i>	Untuk menyelidiki apakah bekerja dari rumah mengurangi atau meningkatkan konflik kerja dan keluarga pada orang tua di Australia, serta menjelaskan faktor mediator (kontrol jadwal, waktu komuter, dan jam kerja tidak teratur) dan moderator (gender, proporsi jam kerja dari rumah).	Perempuan pegawai mengalami WFC lebih tinggi dibanding <i>entrepreneur</i> . WFC menurunkan performa keduanya, namun dampak negatifnya lebih besar pada kelompok pegawai.

### **Dampak WFH terhadap *Work-Family Conflict* (WFC)**

Temuan lintas studi menunjukkan pola yang sangat konsisten bahwa WFH pada periode pasca pandemi meningkatkan intensitas *Work-Family Conflict*. Empat belas dari lima belas artikel yang direview (Adams & Schwarz, 2024; Dong *et al.*, 2025; Laß & Wooden, 2022; Sari *et al.*, 2025) melaporkan bahwa WFH memperbesar tumpang tindih peran karena batas fisik dan temporal antara pekerjaan dan rumah menjadi sangat permeabel. Ketersediaan digital yang tinggi menimbulkan ekspektasi respons cepat dari atasan, memperpanjang jam kerja secara tidak resmi, serta meningkatkan intrusi pekerjaan ke waktu keluarga. Rumah yang tidak dirancang sebagai ruang kerja juga memperbesar gangguan, terutama pada keluarga dengan anak kecil, sehingga pekerja lebih sulit mempertahankan fokus dan alokasi waktu.

Konflik yang paling dominan muncul adalah *work-to-family conflict*, yakni ketika tuntutan pekerjaan mengganggu pemenuhan peran keluarga. Studi Kalmanovich-Cohen dan Stanton (2025) dan Love *et al.* (2025) menegaskan bahwa beban kerja yang tetap tinggi dalam kondisi WFH mendorong pekerja terus berpindah fokus antara tugas profesional dan kebutuhan keluarga. Sebaliknya, hanya sedikit artikel yang menemukan bahwa WFH dapat menurunkan WFC, dan kondisi itu biasanya terjadi ketika pekerja memiliki preferensi tinggi terhadap WFH, akses dukungan yang kuat, serta kontrol terhadap penjadwalan kerja (Leitner, 2024). Namun temuan positif seperti ini tidak konsisten lintas negara dan tidak muncul di konteks dengan beban domestik yang berat. Secara keseluruhan, WFH cenderung meningkatkan konflik peran ketika organisasi tidak menyediakan pedoman kerja, batas waktu, atau dukungan operasional yang memadai.

### **Faktor Moderator dan Mediator dalam Hubungan WFH–WFC**

Analisis dari lima belas artikel menunjukkan bahwa mekanisme munculnya WFC pada pekerja WFH terutama dimediasi oleh faktor yang berkaitan dengan tekanan kerja. Variabel seperti *job stress*, *work pressure*, dan *digital fatigue* menjadi mediator paling kuat yang menjelaskan bagaimana WFH berujung pada konflik antarperan (Dong *et al.*, 2025; Kalmanovich-Cohen & Stanton, 2025; Sari *et al.*, 2025; Riyami *et al.*, 2023). Peningkatan tuntutan digital dan intensitas komunikasi berbasis teknologi menguras energi dan waktu pekerja, sehingga memperbesar gangguan pekerjaan terhadap keluarga. Mediator lain seperti *job engagement* dan *happiness* ditemukan dalam beberapa studi Indonesia (Putrida, 2024; Sari *et al.*, 2024), namun hasilnya tidak stabil; *engagement* hanya berperan protektif pada kondisi tertentu seperti dukungan organisasi atau otonomi yang tinggi.

Pada sisi moderator, gender muncul sebagai faktor yang paling konsisten dan signifikan. Enam artikel menunjukkan bahwa perempuan mengalami peningkatan WFC lebih besar dibanding laki-laki, terutama ketika mereka memikul beban domestik dan pengasuhan yang tidak seimbang (Adams & Schwarz, 2024; Garcia & Cabrera-García, 2024; Sari *et al.*, 2024). Moderator lain yang penting adalah *social support*, baik dari pasangan maupun organisasi. Dukungan pasangan berupa pembagian tugas domestik dan perencanaan rumah tangga terbukti menurunkan efek negatif WFH terhadap WFC (Peiris & Sellar, 2024; Ahuja *et al.*, 2025). Sebaliknya, *ICT permeability*—ketiadaan batas penggunaan perangkat kerja—dilaporkan memperkuat konflik, terutama pada pasangan yang sama-sama bekerja dari rumah (Ahuja *et al.*, 2025). Pola ini menunjukkan bahwa dampak WFH terhadap WFC sangat bergantung pada kondisi psikososial dan relasional di lingkungan pekerja.

### **Dimensi Gender dan Konteks Keluarga**

Dimensi gender menjadi salah satu determinan utama dalam variasi pengalaman WFH. Delapan dari lima belas artikel melaporkan bahwa perempuan menghadapi tingkat WFC yang lebih tinggi akibat beban domestik yang tidak proporsional, tanggung jawab pengasuhan yang

berat, dan fragmentasi waktu kerja akibat interupsi dari anggota keluarga (Adams & Schwarz, 2024; Sari *et al.*, 2024; Garcia & Cabrera-García, 2024). Dimensi ini tidak hanya konsisten secara kuantitas tetapi juga didukung oleh studi-studi dengan kualitas metodologis yang baik, terutama pada penelitian Garcia dan Cabrera-García (2024) yang menggunakan sampel besar serta penelitian dengan desain komparatif oleh Adams dan Schwarz (2024), sehingga memberikan bukti empiris yang lebih kuat dibandingkan temuan dari studi dengan cakupan sampel terbatas.

Konteks keluarga juga menjadi faktor penentu dalam membentuk intensitas WFC. Artikel Love *et al.* (2025) menegaskan bahwa pekerja dengan anak kecil menunjukkan tingkat WFC paling tinggi, terutama ketika sekolah belum sepenuhnya kembali ke mode tatap muka atau fasilitas pengasuhan terbatas. Pada keluarga di mana kedua pasangan bekerja dari rumah, peningkatan konflik terjadi ketika pembagian tugas domestik tidak dinegosiasikan secara jelas. Ahuja *et al.* (2025) menunjukkan bahwa pasangan yang tidak menetapkan aturan mengenai waktu kerja, pembagian pengasuhan, dan penggunaan teknologi mengalami peningkatan frustrasi baik dalam domain kerja maupun keluarga.

Secara lintas negara, pola WFC berbeda tergantung norma sosial. Laß dan Wooden (2022) menemukan bahwa pekerja di negara Barat lebih banyak mengalami konflik akibat digital demands dan jam kerja tidak teratur, bukan beban domestik. Sebaliknya, negara dengan norma patriarkal yang kuat seperti Indonesia, Filipina, dan Kolombia memperlihatkan konflik yang dipicu oleh distribusi kerja domestik yang tidak setara. Hal ini menunjukkan bahwa pengalaman WFH sangat kontekstual dan berakar pada struktur peran keluarga, budaya kerja nasional, serta norma gender yang berlaku.

### **Konteks Budaya dan Negara**

Temuan dari lima belas artikel menunjukkan bahwa pengalaman WFH dan *Work-Family Conflict* sangat dipengaruhi oleh konteks budaya dan karakteristik negara tempat studi dilakukan. Pada negara-negara dengan norma keluarga patriarkal dan beban domestik tinggi, seperti Indonesia, Filipina, dan Kolombia, WFC cenderung meningkat karena pembagian tugas rumah tangga tidak seimbang, struktur keluarga yang multigenerasi, serta ukuran rumah yang terbatas untuk aktivitas bekerja (Sari *et al.*, 2024; Garcia & Cabrera-García, 2024; Sari *et al.*, 2025). Pekerja perempuan di negara-negara ini menghadapi tekanan yang lebih berat karena ekspektasi keluarga terhadap peran pengasuhan tetap tinggi meskipun pekerjaan formal dilakukan dari rumah.

Studi di kawasan Asia lainnya juga menunjukkan pola yang mirip. Riyami *et al.* (2023) menggambarkan bahwa pekerja di kawasan Timur Tengah mengalami WFC karena tuntutan pekerjaan yang tidak menurun selama WFH, sementara nilai budaya menempatkan keluarga sebagai prioritas utama sehingga muncul ketegangan antara peran kerja dan rumah. Sebaliknya, artikel dari negara Barat seperti Australia dan sebagian Eropa menunjukkan konfigurasi konflik yang berbeda. Laß dan Wooden (2023) dan Leitner (2024) menemukan bahwa konflik lebih dipengaruhi oleh digital demands, jam kerja tidak teratur, dan ekspektasi kinerja yang tinggi daripada oleh tekanan domestik. Akses terhadap fasilitas teknologi yang baik, ukuran rumah yang lebih memadai, serta pembagian peran keluarga yang lebih egaliter membuat sumber konflik cenderung berasal dari organisasi, bukan dari lingkungan rumah.

Variasi temuan antarnegara ini menegaskan bahwa WFH bukan kebijakan yang memberikan dampak seragam. Norma gender, struktur rumah tangga, tingkat dukungan keluarga, kondisi fisik tempat tinggal, serta pola kerja nasional menjadi faktor yang membentuk intensitas dan jenis konflik yang dialami pekerja. Konteks budaya menentukan apakah WFH menjadi sumber fleksibilitas atau justru pemicu ketegangan peran yang lebih besar.

### **Konsekuensi WFC terhadap Kinerja dan *Well-being***

Lima belas artikel yang ditinjau memberikan bukti konsisten bahwa meningkatnya WFC selama WFH berkaitan dengan penurunan kinerja dan kesejahteraan pekerja. Studi-studi di Indonesia dan negara berkembang menunjukkan pengaruh negatif yang kuat terhadap produktivitas dan performa kerja. Putrida (2024) dan Sari *et al.* (2024) menemukan bahwa WFC menurunkan kemampuan pekerja dalam menyelesaikan tugas secara efektif, baik pada pegawai pemerintahan maupun pekerja perempuan di sektor formal dan wirausaha. Peiris dan Sellar (2024) menunjukkan bahwa WFC mengurangi kualitas kinerja teleworker karena energi dan fokus pekerja tersedot oleh kebutuhan rumah yang berlangsung bersamaan dengan tuntutan pekerjaan.

Dampak terhadap *well-being* muncul lebih kuat dan lebih stabil dibanding dampak terhadap kinerja. Dong *et al.* (2025) menunjukkan bahwa WFH memiliki sisi positif dan negatif, namun sisi negatif mendominasi ketika WFC meningkat, berupa penurunan kesehatan mental dan emosional. Kalmanovich-Cohen dan Stanton (2025) menemukan bahwa WFC yang diikuti *job stress* dan *digital overload* memicu *burnout* pada pekerja yang bekerja dari rumah, terutama pada pasangan yang sama-sama menjalani WFH. Sari *et al.* (2025) menunjukkan bahwa generasi *sandwich* mengalami tekanan psikologis dan kelelahan digital yang tinggi, yang pada akhirnya menurunkan produktivitas dan kesejahteraan mereka.

Hanya sedikit studi yang menunjukkan efek positif WFH terhadap *well-being*, dan itu pun pada kondisi yang sangat spesifik. Leitner (2024) menemukan bahwa pekerja yang memiliki preferensi tinggi terhadap WFH dan dukungan struktural dari organisasi mengalami kesejahteraan yang lebih baik. Namun, pola ini muncul pada konteks negara dengan fasilitas teknologi memadai dan beban domestik lebih ringan. Secara keseluruhan, temuan lintas artikel menunjukkan bahwa WFC merupakan prediktor kuat penurunan kinerja dan *well-being* pada periode pasca pandemi, sehingga keberhasilan WFH sangat bergantung pada kemampuan pekerja mengatur batas peran dan kualitas lingkungan rumah sebagai tempat kerja.

## **KESIMPULAN DAN SARAN**

Hasil tinjauan secara keseluruhan menunjukkan bahwa WFH memiliki potensi besar untuk meningkatkan fleksibilitas dan kesejahteraan pekerja, tetapi efek positif tersebut sangat bergantung pada konteks keluarga, budaya, dan dukungan organisasi. WFC merupakan mekanisme kunci yang menjelaskan bagaimana WFH dapat berujung pada stres, *burnout*, dan penurunan kinerja, terutama ketika batas waktu kerja menjadi kabur atau beban rumah tangga tinggi. Konteks negara dan norma gender berperan besar dalam menentukan intensitas dan keparahan WFC. Oleh karena itu, kebijakan organisasi maupun kebijakan publik harus mempertimbangkan konteks budaya dan kondisi domestik agar dapat memaksimalkan manfaat WFH sekaligus meminimalkan risiko WFC. Tinjauan ini berkontribusi terhadap penelitian mengenai hubungan WFH dan WFC melalui sintesis temuan empiris lintas studi, sehingga tidak hanya mengidentifikasi berbagai faktor yang memengaruhi hubungan tersebut, tetapi juga menegaskan faktor-faktor kunci serta mekanisme yang menjelaskan bagaimana WFH berkontribusi terhadap munculnya WFC.

## **IMPLIKASI**

Secara teoretis, temuan dari kelima belas artikel ini memperluas pemahaman mengenai pengembangan teori-teori psikologi kerja dalam konteks kerja digital. Pertama, dari teori *Job Demands-Resources* (JD-R) perlu diperluas dengan memasukkan teknologi digital sebagai *demand* maupun *resource*, karena temuan menunjukkan bahwa teknologi memiliki dua sisi di

mana dapat meningkatkan otonomi namun juga menambah beban digital (Dong *et al.*, 2025; Adams & Schwarz, 2024). Kedua, temuan memperkuat pentingnya mengintegrasikan *boundary theory* dengan *gender role theory*, mengingat perbedaan pengalaman WFC pada laki-laki dan perempuan sangat dipengaruhi norma sosial dan struktur keluarga (García & Cabrera-García, 2024). Ketiga, analisis berbasis pasangan (*dyadic analysis*) perlu menjadi bagian dari model teoretis karena praktik kerja pasangan terbukti memoderasi stres dan konflik peran, sebagaimana ditunjukkan oleh Ahuja *et al.* (2025).

Hasil temuan dari seluruh artikel juga memberikan sejumlah implikasi penting bagi organisasi dan pembuat kebijakan. Pertama, organisasi perlu mengembangkan kebijakan *digital boundary management* yang membatasi ekspektasi respons cepat di luar jam kerja dan mendorong pemisahan yang jelas antara waktu kerja dan waktu pribadi. Kedua, fleksibilitas perlu diberikan dalam bentuk struktur fleksibilitas yang terencana, seperti *core working hours*, bukan fleksibilitas tanpa batas yang justru meningkatkan kelelahan. Ketiga, dukungan supervisor yang empatik dan manajemen beban kerja terbukti dapat menurunkan WFC sehingga perlu dijadikan prioritas dalam pelatihan manajerial (Dong *et al.*, 2025).

Keempat, perusahaan di negara dengan norma gender tradisional perlu menerapkan kebijakan sensitif gender, seperti menyesuaikan ekspektasi kerja bagi pekerja dengan tanggung jawab pengasuhan atau menyediakan fasilitas *daycare*. Kelima, menyediakan dukungan teknis berupa perangkat kerja, kursi ergonomis, atau bantuan internet yang dapat membantu pekerja dengan infrastruktur rumah yang terbatas. Selain itu, intervensi keluarga yang mendorong pembagian kerja domestik yang lebih adil terbukti dapat mengurangi WFC dalam konteks rumah tangga dua pekerja (Ahuja *et al.*, 2025).

## REKOMENDASI PENELITIAN LANJUTAN

Penelitian selanjutnya yang membahas terkait WFH dan WFC sebaiknya menggunakan desain longitudinal atau eksperimental untuk dapat memetakan mekanisme sebab-akibat antara WFH, WFC, stres, dan kinerja. Penelitian juga perlu mengadopsi model *actor-partner interdependence*, mengingat peran pasangan terbukti signifikan dalam memengaruhi stres dan keseimbangan kerja-keluarga. Selain itu, riset intervensi berbasis organisasi atau kebijakan publik perlu dilakukan untuk menguji efektivitas kebijakan batas digital, subsidi peralatan kerja, serta dukungan pengasuhan terhadap penurunan WFC. Penelitian juga perlu memperluas sampel ke pekerja informal, buruh sektor produksi, serta kelompok rentan lain yang jarang masuk dalam studi WFH. Mengembangkan instrumen pengukuran WFC yang standar dan kompatibel lintas budaya juga menjadi agenda penting untuk memperkuat kualitas komparasi global.

## KETERBATASAN

Meskipun sintetis dari kelima belas artikel ini memberikan gambaran yang kuat mengenai hubungan antara *Work From Home* (WFH), *Work-Family Conflict* (WFC), kinerja, dan kesejahteraan, terdapat beberapa keterbatasan yang perlu diperhatikan. Pertama, sebagian besar penelitian dalam dataset SLR ini menggunakan desain *cross-sectional* sehingga hubungan kausal tidak dapat ditetapkan secara pasti. Hal ini juga diakui dalam studi Dong *et al.* (2025), Adams dan Schwarz (2024), dan Putrida (2024), yang menyatakan bahwa desain potong lintang tidak memungkinkan pengamatan perubahan kondisi WFC atau *well-being* dari waktu ke waktu. Kedua, metode *self-report* mendominasi seluruh studi, sehingga risiko *common method bias* dan bias persepsi tetap tinggi, meskipun beberapa penelitian telah melakukan uji statistik untuk meminimalkan bias tersebut. Ketiga, terdapat variasi yang beragam instrumen

pengukuran WFC mulai dari skala Netemeyer, Carlson, hingga instrumen lokal tanpa validasi penuh membuat perbandingan langsung antar penelitian menjadi kurang ideal (Laß & Wooden, 2023; Sari *et al.*, 2024). Keempat, sebagian besar sampel penelitian berasal dari pekerja formal sektor jasa, administrasi, maupun akademisi, sehingga pengalaman kelompok pekerja informal, pekerja fisik, atau mereka yang tidak dapat WFH tidak terwakili secara memadai (Peiris & Sellar, 2024; Sangil, 2025). Selain itu, heterogenitas konteks negara memperkaya wawasan, namun tanpa pengendalian faktor budaya, hasil sulit digeneralisasi secara universal.

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## **THE INFLUENCE OF SITUATIONAL LEADERSHIP, ORGANIZATIONAL CULTURE, WORK MOTIVATION, WORK ENVIRONMENT, AND JOB SATISFACTION ON THE EMPLOYEE PERFORMANCE**

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### **ABSTRACT**

This research aims to examine the influence of situational leadership, organizational culture, work motivation, and work environment on the performance of Gen Z employees at PT Agung Sedayu Group, with job satisfaction as a moderating variable. This study employs an associative quantitative method using a purposive sampling technique on 115 Gen Z employees at PT Agung Sedayu Group. Primary data were collected through questionnaires and analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method. The results of data analysis show that situational leadership, organizational culture, work motivation, work environment, and job satisfaction each have a direct, positive, and significant influence on the performance of Gen Z employees. Job satisfaction was found to be the predictor with the strongest influence. Furthermore, this research found that job satisfaction significantly strengthens the positive influence of situational leadership, organizational culture, work motivation, and work environment on employee performance. These findings provide theoretical implications by enriching human resource management literature and practical insights for PT Agung Sedayu Group to optimize the performance of Gen Z employees.

**Keywords:** Leadership; Culture; Motivation; Environment; Satisfaction; Performance.

## INTRODUCTION

Generation Z has now entered the professional workforce, bringing with it a distinct set of characteristics that markedly differ from those of previous generations. As digital natives, members of this cohort exhibit a high degree of technological adaptability, prioritize efficiency, and place significant emphasis on flexibility and a balanced integration of personal and professional life. At PT Agung Sedayu Group, one of the nation's leading property development companies, the innovative potential of Gen Z employees is increasingly recognized as a critical asset in sustaining competitiveness within a rapidly evolving industry. Nevertheless, a pronounced misalignment exists between the unique attributes of this generation and the prevailing management practices within the organization. Rigid traditional leadership models, a deeply hierarchical organizational culture, and inflexible work environments contribute to feelings of constraint and diminished motivation among Gen Z staff. These conditions not only risk undermining individual performance but also elevate the likelihood of increased turnover rates.

Theoretically, Human Resource Management (HRM) integrates elements of leadership, organizational culture, and motivation to optimize employee potential. While numerous studies have examined the influence of leadership, organizational culture, work motivation, and work environment on employee performance, a significant empirical gap remains (Dessler, 2021). Most prior research has not specifically investigated the complex interplay of these variables within the demographic cohort of Generation Z workers, particularly in large-scale property development firms such as PT Agung Sedayu Group. Furthermore, the role of job satisfaction as a psychological mechanism moderating the impact of managerial and environmental factors on Gen Z performance has not been comprehensively explored in existing literature.

The necessity for this research is further underscored by the inconsistent findings observed in prior studies. Discrepancies exist regarding the direct influence of independent variables on employee performance. For instance, Syafrina and Mon (2024) assert that situational leadership, organizational culture, and work motivation significantly affect performance, whereas Arfianty et al. (2021) found that situational leadership has no significant effect and that organizational culture exerts only a non-significant influence. Similarly, Hidayat (2021) concluded that work motivation does not significantly impact performance. Inconsistencies also emerge in the relationship between work environment and performance, Pradana (2021) reported a significant effect, while Akhiriani and Risal (2023) arrived at the opposite conclusion. Regarding the influence of job satisfaction on performance, Syafrina and Mon (2024) identified a significant effect, yet Rohimah et al. (2023) found no such relationship. Furthermore, divergent results are evident in the moderating role of job satisfaction. Syafrina and Mon (2024) claim that job satisfaction moderates the effects of situational leadership, organizational culture, and work motivation on employee performance, however, this assertion is contradicted by Pardi et al. (2024), Arfianty et al. (2021), and Sembiring and Syarifuddin (2024), who each found that job satisfaction does not serve as a moderator for these variables. Lastly, while Warista et al. (2022) concluded that job satisfaction moderates the impact of work environment on performance, Mauwene et al. (2024) determined that it does not.

Given the identified gaps in the existing body of literature and the inconsistencies present in prior empirical findings, this study undertakes a systematic investigation into the multifaceted factors that distinctly influence the performance of Generation Z employees. Rather than limiting its scope to an assessment of the direct effects of situational leadership, organizational culture, work motivation, and work environment, the research adopts a more integrative analytical framework by incorporating job satisfaction as a moderate variable. This methodological refinement aims to advance theoretical understanding by determining whether

job satisfaction serves as a critical mediating force capable of reconciling the divergent outcomes observed in the relationship between managerial determinants and the performance of Generation Z workers within modern organizational contexts.

## LITERATURE REVIEW

### **Situational Leadership**

Situational leadership is a flexible and adaptive management approach that enables leaders to tailor their style to the specific needs of their team members as they tackle various tasks. This methodology recognizes that the most effective leadership is not a one-size-fits-all proposition, but rather one that adjusts according to the maturity level, competence, and readiness of the followers. By assessing these factors, a leader can determine the appropriate level of guidance, support, and empowerment required for their team to succeed in a particular situation. The underlying principle is that different tasks and circumstances demand different leadership strategies, and a leader's ability to adapt their approach is crucial in achieving the desired outcomes. As a result, situational leadership promotes a more responsive and effective management style, allowing leaders to maximize their team's potential and address the unique challenges of each task or project (Hersey & Blanchard, 2022).

### **Organizational Culture**

Organizational culture refers to a complex set of underlying assumptions, values, and beliefs that are shared by a group of individuals within an organization. These assumptions are developed over time as the group navigates and addresses various challenges related to external adaptation, such as responding to market changes and internal integration, like fostering collaboration among employees. As the group successfully solves these problems, the assumptions that have guided their actions and decisions become ingrained and are considered valid. Eventually, these assumptions are passed on to new members as the accepted way of perceiving, thinking, and behaving within the organization, shaping their understanding of the organization's identity and informing their actions. This cultural framework serves as a guiding force, influencing how employees interact with one another, making decisions, and responding to internal and external stimuli, ultimately contributing to the organization's overall character and work environment (Schein, 2022).

### **Work Motivation**

Work motivation is a complex and multifaceted process that drives individuals to strive to achieve their established work objectives. It encompasses not only the intensity of their efforts but also the direction they take and the persistence they demonstrate in overcoming obstacles. At its core, work motivation is about understanding what fuels an individual's desire to work towards specific goals, and how this drive is sustained over time. The intensity aspect of work motivation refers to the level of energy and enthusiasm an individual devotes to their work. Direction, on the other hand, pertains to the focus and alignment of their efforts with the organization's objectives. Persistence is about the ability to maintain effort despite challenges and setbacks. Together, these elements provide a comprehensive understanding of what motivates individuals to achieve their work goals (Judge & Robbins, 2022).

### **Work Environment**

The work environment is a multifaceted concept that comprises various elements present in the workplace, including both physical and psychological factors. These elements have a

significant impact on employee behavior and job performance, as they can either facilitate or hinder an individual's ability to carry out their duties effectively. The physical aspects of the work environment refer to the tangible characteristics of the workplace, such as the layout, lighting, temperature, and noise levels, which can all contribute to an employee's comfort and productivity. On the other hand, the psychological aspects pertain to the intangible elements, including the organizational culture, management style, and interpersonal relationships among colleagues, which can also greatly influence an employee's well-being and job satisfaction. When both physical and psychological aspects of the work environment are optimized, employees are more likely to be motivated, engaged, and perform at their best, ultimately driving overall organizational success (Robandi, 2021).

### **Job Satisfaction**

Job satisfaction refers to a positive emotional state that individuals experience when they evaluate their job in a favorable manner. This assessment is deeply personal and is influenced by the alignment of their job with their core values, personal expectations, and overall work experience. When a person's job meets or exceeds their expectations, they are more likely to feel a strong sense of satisfaction. This satisfaction is not just about the job itself but also encompasses various aspects such as the work environment, the nature of the tasks, opportunities for growth, and the overall organizational culture. The emotional state associated with job satisfaction can significantly impact an individual's motivation, productivity, and overall well-being. As a result, understanding the factors that contribute to job satisfaction is crucial for both employees and employers, as it can lead to a more positive and productive work environment (Locke, 2022).

### **Employee Performance**

Employee performance is a multifaceted outcome that stems from a range of activities undertaken by individuals within an organizational setting. It serves as a reflection of their productivity levels and effectiveness in driving efforts towards achieving the predetermined objectives set by the company. Essentially, it encompasses the overall contribution made by employees to the organization, highlighting their ability to execute tasks efficiently and effectively. The level of employee performance is often a critical determinant of an organization's success, as it directly impacts the attainment of its strategic goals. By evaluating employee performance, organizations can gain valuable insights into their workforce's strengths and areas that require improvement, allowing them to implement targeted strategies to enhance overall productivity and goal achievement (Hasibuan, 2021).

### **The Influence of Situational Leadership on Employee Performance**

Research conducted by Syafrina and Mon (2024) states that situational leadership has a positive and significant influence on employee performance. Situational leadership requires leaders to adapt their leadership style to the level of maturity and abilities of employees. With this adaptation, employees receive directions that suit their needs, both in terms of supervision and support. When leaders succeed in matching their leadership style to employee conditions, this can increase motivation and productivity, thus having a positive impact on performance. Employees who feel given support and trust tend to work more effectively, be more innovative, and achieve optimal results. Based on this explanation, the following research hypothesis can be created:

H<sub>1</sub> : Situational leadership has a positive and significant effect on the performance of Gen Z employees at PT Agung Sedayu Group.

### **The Influence of Organizational Culture on Employee Performance**

Research conducted by Syafrina and Mon (2024) states that organizational culture has a positive and significant influence on employee performance. A strong organizational culture creates an environment where values, norms, and expected work behaviors are clear to all members. A positive culture can increase employees' sense of belonging and loyalty to the company, which in turn encourages better performance. When the culture supports collaboration, innovation, and work ethics, employees tend to be more enthusiastic, more engaged in tasks, and perform at their best. On the other hand, a negative culture can hinder employee potential and reduce productivity. Based on this explanation, the following research hypothesis can be created:

H<sub>2</sub> : Organizational culture has a positive and significant effect on the performance of Gen Z employees at PT Agung Sedayu Group.

### **The Influence of Work Motivation on Employee Performance**

Research conducted by Syafrina and Mon (2024) states that work motivation has a positive and significant influence on employee performance. Work motivation is one of the main factors that influences employee performance. Motivated employees will work more enthusiastically, have initiative, and tend to complete tasks well. Motivation can come from various factors such as recognition, rewards, growth opportunities, and clear goals. Employees who have strong intrinsic and extrinsic motivation will be more productive, achieve targets more easily, and strive to exceed expectations, which ultimately has a positive impact on performance. Based on this explanation, the following research hypothesis can be created:

H<sub>3</sub> : Work motivation has a positive and significant effect on the performance of Gen Z employees at PT Agung Sedayu Group.

### **The Influence of the Work Environment on Employee Performance**

Research conducted by Pradana (2021) states that the work environment has a positive and significant influence on employee performance. A conducive work environment, both from physical and psychological aspects, can increase employee comfort and productivity. The physical environment such as room layout, cleanliness, and adequate lighting can influence work comfort. On the other hand, a supportive social environment, such as good relations between colleagues and superiors, creates a positive work atmosphere. When the work environment supports employees to feel safe and comfortable, they will be more focused, creative and motivated to improve their performance. Based on this explanation, the following research hypothesis can be created:

H<sub>4</sub> : The work environment has a positive and significant effect on the performance of Gen Z employees at PT Agung Sedayu Group.

### **The Effect of Job Satisfaction on Employee Performance**

Research conducted by Syafrina and Mon (2024) states that job satisfaction has a positive and significant influence on employee performance. Job satisfaction plays an important role in shaping employee attitudes and performance in the workplace. When employees feel satisfied with their jobs, both in terms of salary, facilities, and work environment, they tend to be more loyal, enthusiastic, and willing to put in more effort to achieve organizational goals. Conversely, employees who are dissatisfied with their jobs often show decreased motivation and productivity, which can have a negative impact on their performance. A high level of satisfaction can be a strong encouragement for employees to continue to excel. Based on this explanation, the following research hypothesis can be created:

H<sub>5</sub> : Job satisfaction has a positive and significant effect on the performance of Gen Z employees at PT Agung Sedayu Group.

### **Job Satisfaction Moderates the Effect of Situational Leadership on Employee Performance**

Research conducted by Syafrina and Mon (2024) states that job satisfaction moderates the influence of situational leadership on employee performance. Job satisfaction can moderate the influence of situational leadership on employee performance by strengthening or weakening this relationship. When employees feel satisfied with their work, appropriate situational leadership will further improve their performance, because employees feel motivated and appreciated at work. However, if job satisfaction is low, despite leadership adjustments, the impact on performance may be less than optimal, as employees may not be fully engaged or motivated to contribute more. Based on this explanation, the following research hypothesis can be created:

H<sub>6</sub> : Job satisfaction moderates the influence of situational leadership on the performance of Gen Z employees at PT Agung Sedayu Group.

### **Job Satisfaction Moderates the Effect of Organizational Culture on Employee Performance**

Research conducted by Syafrina and Mon (2024) states that job satisfaction moderates the influence of organizational culture on employee performance. Job satisfaction can moderate the influence of organizational culture on employee performance by strengthening the effectiveness of culture in encouraging performance. When employees are satisfied with the organization's environment and systems, they will be more influenced by the existing positive culture and show better performance. On the other hand, if employees feel dissatisfied with their work, even a good organizational culture may not be enough to motivate them to work more optimally, because dissatisfaction factors can reduce commitment and productivity. Based on this explanation, the following research hypothesis can be created:

H<sub>7</sub> : Job satisfaction moderates the influence of organizational culture on the performance of Gen Z employees at PT Agung Sedayu Group.

### **Job Satisfaction Moderates the Effect of Work Motivation on Employee Performance**

Research conducted by Syafrina and Mon (2024) states that job satisfaction moderates the influence of work motivation on employee performance. Job satisfaction moderates the relationship between work motivation and employee performance by strengthening the impact of motivation on performance. Employees who are satisfied with their work tend to be more easily influenced by motivation, both intrinsic and extrinsic, which then results in better performance. However, when job satisfaction is low, the motivation provided may not be completely effective, because feeling dissatisfied can reduce the employee's drive to work harder or achieve higher goals. Based on this explanation, the following research hypothesis can be created:

H<sub>8</sub> : Job satisfaction moderates the influence of work motivation on the performance of Gen Z employees at PT Agung Sedayu Group.

### **Job Satisfaction Moderates the Effect of the Work Environment on Employee Performance**

Research conducted by Warista et al. (2022) stated that job satisfaction moderates the influence of the work environment on employee performance. Job satisfaction also moderates the influence of the work environment on employee performance by increasing the positive

impact of a supportive environment. When employees feel satisfied with their work, a good work environment will further increase productivity and efficiency. However, if job satisfaction is low, even though the work environment is optimal, employee performance may still not increase significantly due to dissatisfaction factors that reduce their motivation and involvement in work. Based on this explanation, the following research hypothesis can be created:

H<sub>9</sub> : Job satisfaction moderates the influence of the work environment on the performance of Gen Z employees at PT Agung Sedayu Group.

## RESEARCH METHOD

This study employs a quantitative research design with an associative approach to examine and elucidate the causal relationships among the variables under investigation. The population for this research comprises 153 employees working at PT Agung Sedayu Group. Sampling was conducted using a non-probability sampling technique, specifically purposive sampling, wherein respondents were selected based on specific criteria namely, Generation Z employees who have been employed at the company for at least one year. Applying these screening criteria, a primary sample of 115 respondents was obtained. Primary data were collected through a survey method utilizing a structured questionnaire with a 5-point Likert scale to measure all variable indicators.

Prior to the distribution of the questionnaire to the primary sample, the researcher conducted a pre-test, or initial pilot study, involving 30 respondents who were not part of the main research sample. This pre-test phase represents a critical stage in the research process, designed to assess the suitability and robustness of the research instrument. Data collected from these initial 30 respondents were analyzed to evaluate convergent validity through examination of outer loading values, ensuring that each item accurately reflects its corresponding latent variable. Additionally, the data were used to assess the internal consistency of the instrument by applying composite reliability and Cronbach's alpha tests. Only those measurement items that demonstrated both validity and reliability during this preliminary phase were subsequently employed in the main data collection, which involved 115 primary respondents.

The data analysis for this study was conducted entirely using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach, facilitated by SmartPLS software. The selection of PLS-SEM was grounded in its robust capability to simultaneously evaluate complex research models. This method enables researchers to assess the direct effects of four independent variables while concurrently examining the moderating role of job satisfaction. Furthermore, PLS-SEM is considered a powerful analytical technique due to its high degree of flexibility and its independence from strict assumptions regarding data distribution. The application of PLS-SEM is particularly appropriate and well-suited for this study, given that the sample size of 115 respondents satisfies the Ten-times Rule a guideline recommending a minimum sample size for SEM models of moderate complexity, thereby ensuring that the analysis achieves sufficient statistical power to support valid and reliable conclusions.

## RESULTS AND DISCUSSION

### Outer Loading Test Results

The results of the outer loading test carried out on 30 respondents outside the sample to test whether or not the statements of this research questionnaire were valid can be seen in Figure 1.

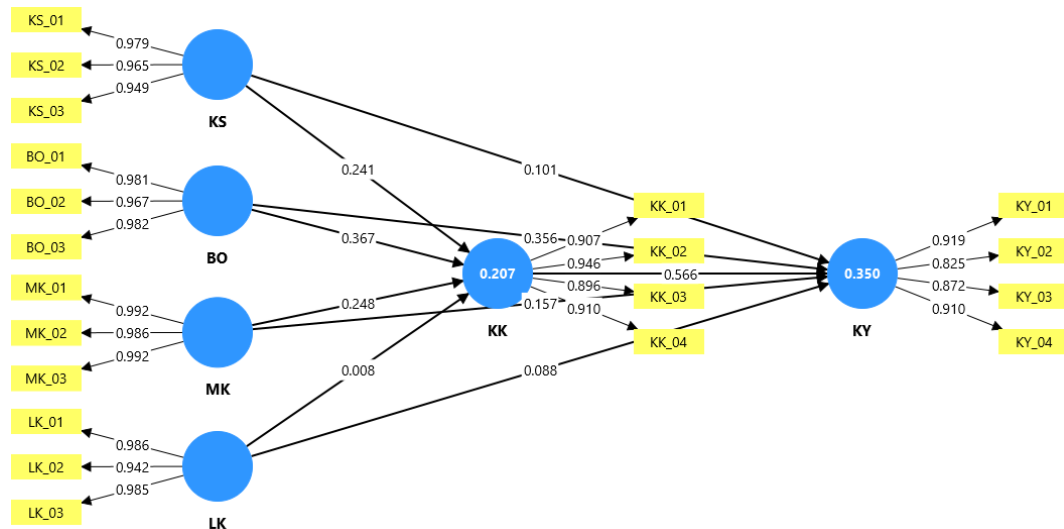


Figure 1. Outer Outer Pride

Outer loading testing is carried out to evaluate convergent validity, namely, to ensure that each indicator or statement item accurately measures the latent variable it represents. Based on the results of the analysis of all indicators used in this research, the outer loading value is greater than the recommended threshold of 0,70, The values obtained ranged from 0,825 to 0,992 which confirms that each questionnaire item has a very strong correlation with its respective construct. Thus, it can be concluded that all research instruments used are valid and capable of measuring the variables studied accurately.

### Composite Reliability Test Results

The results of composite reliability testing carried out on 30 respondents outside the sample to test whether or not the statements of this research questionnaire were valid can be seen in Table 1.

Table 1. Composite Reliability Test Results

Variable	Cronbach's Alpha	Composite Reliability	Information
Situational Leadership (KS)	0,963	0,976	Reliable
Organizational Culture (BO)	0,976	0,984	Reliable
Work Motivation (MK)	0,990	0,993	Reliable
Work Environment (LK)	0,980	0,980	Reliable
Job Satisfaction (KK)	0,935	0,954	Reliable
Employee Performance (KY)	0,905	0,933	Reliable

Source: Data Processed with Smart PLS (2025)

Composite reliability testing aims to assess the reliability or internal consistency of all the indicators that form a latent variable. The test results presented in Table 1 show that all research variables, both independent, moderating and dependent, have Composite Reliability and Cronbach's Alpha values that are far above the minimum standard of 0,70, Composite

Reliability values ranging from 0,933 to 0,993 indicate that each set of indicators consistently and reliably measures its construct. Therefore, the measurement model in this research can be stated to have a very high level of reliability.

### R Square Variance Analysis Results

The results of the R Square variance analysis in this research can be seen in Table 2.

Table 2. Results of R Square Variance Analysis

Variable	Adjusted R Square
Job Satisfaction (KK)	0,842
Employee Performance (KY)	0,840

Source: Data Processed with Smart PLS (2025)

R Square analysis is used to measure the ability of the predictor variables in the research model to explain variations in the dependent variable. Based on Table 2, the Adjusted R Square value is 0,842 for the Job Satisfaction (KK) variable, which means that 84.2% of the variation in job satisfaction can be explained by the variable's situational leadership, organizational culture, work motivation and work environment. Furthermore, the Adjusted R Square value for the Employee Performance (KY) variable is 0,837 which indicates that 83.7% of the variation in employee performance can be explained by the variable's situational leadership, organizational culture, work motivation, work environment and job satisfaction. These two values are classified in the substantial (strong) category, so it can be concluded that this research model has very good predictive power.

### F Square Analysis Results

The results of the F Square analysis in this research can be seen in Table 3.

Table 3. Results of F Square Analysis

Influence of Variables	<i>F-Square</i>	Information
Situational Leadership → Job Satisfaction	0,577	Big
Organizational Culture → Job Satisfaction	0,263	Currently
Work Motivation → Job Satisfaction	0,679	Big
Work Environment → Job Satisfaction	0,303	Currently
Situational Leadership → Employee Performance	0,108	Small
Organizational Culture → Employee Performance	0,320	Currently
Work Motivation → Employee Performance	0,528	Big
Work Environment → Employee Performance	0,011	Very small
Job Satisfaction → Employee Performance	0,217	Currently

Source: Data Processed with Smart PLS (2025)

F Square analysis is carried out to determine the magnitude of the influence or relative contribution of each independent variable to the dependent variable in the structural model. The results in Table 3 show that the variables Work Environment (0.303), Work Motivation (0,679), and Situational Leadership (0,577) have a large effect (large effect) on Job Satisfaction, while Organizational Culture (0,263) has a medium effect (medium effect). On Employee Performance, Work Motivation (0,528) shows a large influence, followed by Organizational Culture (0,320) and Job Satisfaction (0,217) with a moderate influence. On the other hand,

Situational Leadership (0,108) has a small effect, and Work Environment (0,011) has a very small and negligible effect.

### Path Coefficients Analysis Results

The results of the path coefficients analysis in this research can be seen in Table 4.

Table 4. Results of Path Coefficients Analysis

Influence	Path Coefficient	P-Value
Situational Leadership → Job Satisfaction	0,286	0,003
Organizational Culture → Job Satisfaction	0,164	0,014
Work Motivation → Job Satisfaction	0,138	0,000
Work Environment → Job Satisfaction	0,570	0,000
Situational Leadership → Employee Performance	0,144	0,007
Organizational Culture → Employee Performance	0,189	0,000
Work Motivation → Employee Performance	0,147	0,000
Work Environment → Employee Performance	0,063	0,199
Job Satisfaction → Employee Performance	0,433	0,000
Situational Leadership → Job Satisfaction → Employee Performance	0,124	0,007
Organizational Culture → Job Satisfaction → Employee Performance	0,071	0,030
Work Motivation → Job Satisfaction → Employee Performance	0,060	0,000
Work Environment → Job Satisfaction → Employee Performance	0,247	0,001

Source: Data Processed with Smart PLS (2025)

Based on path coefficient analysis, this study confirms that situational leadership, organizational culture, work motivation, and job satisfaction have a positive and significant impact on the performance of Gen Z employees at PT Agung Sedayu Group, whereas the work environment does not demonstrate a significant direct effect. However, the findings highlight the vital role of job satisfaction, which significantly moderates and strengthens the influence of all independent variables, including the work environment, on employee performance, indicating that high employee satisfaction serves as a key catalyst in optimizing the effectiveness of these managerial factors for organizational productivity.

### Discussion

The analysis of the findings indicates that situational leadership, organizational culture, and work motivation exert a significant and positive influence on the performance of Generation Z employees. This influence extends beyond statistical significance and is fundamentally tied to the distinctive characteristics of this generation. As digital natives, Gen Z individuals prioritize autonomy, rapid feedback, and opportunities for professional development, often favoring these elements over traditional, inflexible work structures. Consequently, they demonstrate markedly improved performance when leaders tailor their guidance to individual needs, rather than relying on uniform, standardized approaches. Likewise, an organizational culture that encourages innovation resonates strongly with their inclination toward experimentation and collaborative problem-solving, thereby reducing the dissatisfaction typically associated with rigid hierarchical systems. Work motivation further emerges as a pivotal factor, given that this cohort is inherently goal-driven; their engagement and output increase substantially when they perceive their efforts as both recognized and meaningful.

In contrast, the physical work environment was found to have no statistically significant direct effect on performance. While PT Agung Sedayu Group provides modern facilities such as open-plan offices, these spaces are occasionally interpreted by younger employees not as enablers of collaboration, but as mechanisms for heightened surveillance. As a result, the mere presence of such physical infrastructure does not inherently enhance productivity. More importantly, job satisfaction has been identified as the central determinant of performance, functioning not only as the most powerful direct predictor but also as a significant moderate variable across all independent factors. This outcome aligns logically with Gen Z's pronounced emphasis on work-life balance, psychological well-being, and long-term career progression. In its moderating role, job satisfaction acts as a critical accelerator when employees feel intrinsically fulfilled by their roles and future prospects, they are more inclined to fully leverage supportive leadership and a constructive organizational culture. At the same time, this sense of satisfaction serves as a psychological safeguard, enabling individuals to maintain high performance levels even in the face of suboptimal physical working conditions or environmental constraints.

## CONCLUSION

This study demonstrates that situational leadership, organizational culture, and work motivation exert a significant positive influence on the performance of Generation Z employees at PT Agung Sedayu Group. From a theoretical standpoint, the research advances human resource management scholarship by clarifying the conditional dynamics of these relationships, particularly through the moderating function of job satisfaction. Job satisfaction emerges not only as the most robust direct predictor of employee performance but also as a pivotal boundary condition that enhances the effectiveness of leadership and organizational practices. Notably, while the physical work environment does not independently affect performance, its influence becomes statistically significant when mediated by high levels of job satisfaction. This finding underscores the proposition that improvements to the physical workspace are only impactful when employees experience intrinsic psychological fulfillment. Both academically and practically, these results suggest that organizations cannot depend exclusively on structural or environmental modifications to elevate the performance of Generation Z workers. Rather, management must place greater emphasis on cultivating intrinsic job satisfaction through meaningful work assignments and transparent career progression as the foundational mechanism that enables adaptive leadership, a culture of innovation, and an optimized physical environment to yield their full potential. For future theoretical advancement, it is recommended that subsequent studies empirically validate this moderated framework across varied industrial contexts and incorporate additional variables, such as work-life balance or psychological well-being, to further elucidate the multifaceted determinants of performance among digital-native employees.

## ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to Allah SWT for His blessings and grace, which have enabled the completion of this thesis. My sincere appreciation is extended to Dr. Hananiel Menoverdi Gunawan, AAC., B.A., MBA., for his exceptional mentorship and patience as my supervisor, and to Dra. Gracia Shinta S. Ugut, MBA., Ph.D., along with the entire academic staff at Universitas Pelita Harapan for their support. I am also indebted to Mr. Nugroho Adi Putranto, B.A., and the management of PT Agung Sedayu Group for granting permission to conduct this research, as well as to all the employees who willingly participated

as respondents. Furthermore, this work is dedicated to my beloved parents, M Sani and Evi Susanty, and my siblings Liawra, Rey, and Liawvioni whose unwavering love, prayers, and encouragement have been my greatest strength throughout this journey, along with all friends and colleagues who have provided their invaluable support.

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## THE INFLUENCE OF DIGITAL LEADERSHIP ON EMPLOYEE PERFORMANCE THROUGH WORK ENGAGEMENT

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### ABSTRACT

This study examines the influence of digital leadership on employee performance, with a particular emphasis on the mediating role of work engagement. In the context of rapid digital transformation, organizational effectiveness is increasingly shaped not only by technological advancement but also by the readiness of human resources and leadership capabilities in managing digital change. A quantitative research approach was employed using a survey method involving N=150 employees working in organizations undergoing digital transformation. Data were analyzed using Structural Equation Modeling (SEM) with AMOS software. The results indicate that digital leadership has a significant positive effect on work engagement, which in turn enhances employee performance. Furthermore, mediation analysis confirms that work engagement plays a significant mediating role in the relationship between digital leadership and employee performance. Theoretically, this study extends the Job Demands–Resources (JD-R) framework by incorporating digital leadership as a critical job resource in the digital era. Practically, the findings provide important implications for organizations in designing leadership development strategies that foster employee engagement and improve performance outcomes in digitally transforming environments.

**Keywords:** Digital Leadership; Work Engagement; Employee Performance

## INTRODUCTION

In recent years, digital transformation has become a dominant strategic concern in the field of human resource management. The rapid advancement of digital technologies has not only reconfigured organizational processes but also reshaped leadership practices and the ways organizations mobilize and empower their employees. As a result, the success of digital transformation can no longer be attributed solely to technological infrastructure; instead, it increasingly depends on the readiness of human resources and the effectiveness of leadership in managing digitally driven change (Verhoef et al., 2021; Vial, 2019; Zeike et al., 2019).

A growing body of recent empirical evidence suggests that many digital transformation initiatives fail due to an excessive focus on technological deployment without sufficient attention to human and behavioral dimensions. Studies indicate that organizations often face challenges such as employee resistance, lack of leadership capability, and low engagement when implementing digital transformation (Verhoef et al., 2021; Warner & Wäger, 2019; Sousa & Rocha, 2019). This highlights that technological investment alone is insufficient without parallel development in leadership and human resource practices.

From a theoretical perspective, the Job Demands–Resources (JD-R) framework provides a useful lens to explain how leadership functions as a job resource that enhances employees' motivational states (Bakker et al., 2023). In the context of digital transformation, digital leadership can be viewed as a critical job resource that fosters work engagement, which subsequently leads to improved employee performance. Recent studies have emphasized the importance of work engagement in driving employee outcomes and organizational performance (Saks, 2022; Knight et al., 2019).

However, despite the increasing interest in digital transformation, empirical studies that specifically examine the role of digital leadership in enhancing employee performance through work engagement remain limited. Prior research tends to examine leadership and performance relationships directly, without fully exploring the mediating mechanism of work engagement in digital contexts.

Therefore, this study aims to address this gap by investigating the mediating role of work engagement in the relationship between digital leadership and employee performance. This research contributes to the literature by extending the JD-R framework into the digital leadership context and providing recent empirical evidence on how leadership influences employee performance in the digital era.

## LITERATURE REVIEW

### Digital Leadership

Digital leadership refers to a leadership orientation that emphasizes the strategic use of digital technologies to shape organizational vision, foster innovation, and develop adaptive work cultures. Beyond technical competence, digital leadership reflects a leader's ability to manage digital transformation, encourage collaboration, and promote continuous learning across the organization (Zeike et al., 2019; Klein, 2020).

Recent empirical studies highlight that digital leadership plays a significant role in influencing employee attitudes and behaviors. For instance, Contreras et al. (2020) found that leaders who effectively respond to technological change can enhance employee engagement by strengthening clarity, trust, and organizational support. Similarly, El Sawy et al. (2020) emphasized that digital leaders act as change agents who align technological capabilities with human resource development to achieve organizational effectiveness.

Moreover, emerging studies suggest that digital leadership contributes directly to

employee performance by fostering innovation-oriented behavior and adaptability in dynamic environments (Cortellazzo et al., 2019; Sousa & Rocha, 2019). However, prior research often focuses on direct relationships, with limited attention given to the underlying psychological mechanisms that explain how digital leadership translates into improved performance outcomes.

### **Work Engagement**

Work engagement represents a positive and persistent psychological state characterized by vigor, dedication, and absorption, reflecting the extent to which employees are cognitively, emotionally, and physically involved in their work (Bakker et al., 2023). Within the Job Demands–Resources (JD-R) framework, work engagement is conceptualized as a key motivational process that arises when employees are supported sufficient job resources, including effective leadership and organizational support (Bakker et al., 2023). Recent literature emphasizes that work engagement is a critical predictor of various organizational outcomes. Engaged employees tend to demonstrate higher levels of productivity, creativity, and organizational commitment (Knight et al., 2019). Furthermore, Saks (2019) argues that work engagement serves as a central mechanism linking leadership practices to employee outcomes, reinforcing its role as a mediating variable.

Despite its recognized importance, empirical research examining work engagement as a mediator in digital leadership contexts remains relatively limited. Most studies treat engagement as an independent predictor rather than as an explanatory mechanism, particularly within digitally transforming organizations.

### **Employee Performance**

Employee performance refers to the extent to which employees effectively fulfill their job responsibilities and contribute to organizational goals. In the context of digital transformation, performance encompasses not only task completion but also adaptability, innovation, and responsiveness to technological change (Al-Omari et al., 2020). Recent studies further emphasize that employee performance in digital environments is closely linked to continuous learning, digital competence, and the ability to respond to dynamic work demands (Van Laar et al., 2020).

Recent empirical studies demonstrate that employee performance is influenced by both leadership factors and psychological conditions. For example, Al-Omari et al. (2020) found that leadership styles significantly affect employee performance through motivational processes. Similarly, Nguyen et al. (2019) showed that employee engagement plays a crucial role in enhancing individual performance, particularly in dynamic and technology-driven environments.

Additionally, contemporary research highlights that organizational success in digital contexts depends on the alignment between leadership capabilities and employee psychological readiness (Verhoef et al., 2021; Warner & Wäger, 2019). However, existing studies often examine these factors separately, resulting in limited understanding of how leadership and engagement interact to influence performance outcomes in digital transformation settings.

### **Hypothesis Development**

Guided by insights from prior empirical studies and grounded in the Job Demands–Resources (JD-R) framework, this study develops a set of hypotheses to explain the interrelationships between digital leadership, work engagement, and employee performance. Within the JD-R perspective, leadership is positioned as a fundamental job resource that activates motivational processes and facilitates positive work-related outcomes.

In the context of digital transformation, digital leadership is assumed to play a crucial role in shaping an enabling work environment by offering strategic direction, support, and resources that help employees navigate digital change. Such conditions are expected to strengthen employees' psychological connection to their work, which is manifested through increased levels of work engagement. On this basis, the first hypothesis is formulated as follows:

H1: Digital leadership has a positive effect on work engagement.

Employees who are highly engaged in their work are characterized by elevated levels of energy, commitment, and concentration when performing job tasks. These psychological attributes have been widely acknowledged as key drivers of enhanced employee performance. Accordingly, the second hypothesis is proposed:

H2: Work engagement has a positive effect on employee performance.

Furthermore, the JD-R framework emphasizes that the influence of job resources, including leadership, may be transmitted through motivational mechanisms rather than operating solely through direct pathways. In this regard, work engagement is expected to serve as an intervening mechanism that explains how digital leadership translates into improved employee performance. Therefore, the following hypothesis is advanced:

H3: Digital leadership positively affects employee performance through the mediating role of work engagement.

## RESEARCH METHOD

This study employed a quantitative research approach with an explanatory design to empirically test the relationships proposed in the conceptual model. The study focused on employees working in the Indonesian service sector, particularly in organizations that have adopted digital-based operational systems.

A purposive sampling technique was applied using specific inclusion criteria: respondents had to be active employees, regularly use digital technologies in their daily work, and have a minimum of one year of work experience within their organization. Based on these criteria, a total of 150 valid responses were obtained and used for further analysis.

The sample size is considered adequate for Structural Equation Modeling (SEM) analysis, as Hair et al. (2019) suggest a minimum sample size of 100–200 for SEM, depending on model complexity. Additionally, the sample size meets the recommended ratio of at least 5–10 observations per estimated parameter, ensuring sufficient statistical power and model stability.

Primary data were collected through a self-administered online questionnaire distributed via Google Forms. The use of an online survey facilitated broader reach and efficient data collection among respondents across different organizations. All measurement items were assessed using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The measurement instruments were adapted from established and validated scales in prior studies to ensure construct validity and reliability. Specifically: Digital leadership was measured using items adapted from Zeike et al. (2019) and Cortellazzo et al. (2019). Work engagement was measured using the Utrecht Work Engagement Scale (UWES), which has been widely validated in recent studies. Employee performance was measured using indicators that capture both task performance and contextual performance, as validated in more recent studies (Al-Omari et al., 2020), which capture both task performance and contextual performance. Data analysis was conducted using Structural Equation Modeling (SEM) with AMOS software..

The analysis followed a two-step approach: first, the measurement model was evaluated

to assess construct validity (convergent and discriminant validity) and reliability (Cronbach’s alpha and composite reliability). Second, the structural model was assessed to examine the hypothesized relationships among variables.

To address potential common method bias (CMB) arising from the use of self-reported data, several procedural and statistical remedies were applied. Procedurally, respondents were assured of anonymity and confidentiality to reduce evaluation apprehension and response bias. Additionally, measurement items were carefully structured and derived from different sources to minimize common scale effects. Statistically, Harman’s single-factor test was conducted, and the results indicated that no single factor accounted for the majority of the variance (less than 50%), suggesting that CMB was not a serious concern in this study.

## RESULTS AND DISCUSSION

### Measurement Model

The adequacy of the measurement model was examined using Confirmatory Factor Analysis (CFA) to assess the quality of the measurement indicators, including indicator reliability, construct reliability, and both convergent and discriminant validity. The outcomes of the CFA are reported in Table 1, which displays the standardized factor loadings along with the reliability statistics for each latent construct included in the study.

Table 1. Confirmatory Factor Analysis (CFA) Results

Construct	Indicator	Standardized Loading
Digital Leadership	DL1	0.78
	DL2	0.81
	DL3	0.74
	DL4	0.69
Work Engagement	WE1	0.83
	WE2	0.79
	WE3	0.76
Employee Performance	EP1	0.85
	EP2	0.80
	EP3	0.72

All observed indicators demonstrate standardized factor loadings that surpass the commonly accepted cut-off value of 0.50, indicating that each item adequately represents its underlying latent construct.

To provide further evidence of measurement quality, construct reliability and convergent validity were assessed by calculating Composite Reliability (CR) and Average Variance Extracted (AVE) for all constructs. The outcomes of these evaluations are reported in Table 2, which presents the reliability coefficients and convergent validity indices for each latent variable.

Table 2. Construct Reliability and Convergent Validity

Construct	Composite Reliability (CR)	Average Variance Extracted (AVE)
Digital Leadership	0.86	0.61
Work Engagement	0.88	0.65
Employee Performance	0.84	0.57

The analysis shows that all latent constructs achieve Composite Reliability (CR) values above the recommended threshold of 0.70, while the corresponding Average Variance Extracted (AVE) values exceed 0.50. These findings provide strong evidence that the measurement model possesses sufficient internal consistency and meets the criteria for convergent validity.

To assess discriminant validity, the Fornell–Larcker criterion was applied by comparing the square root of the AVE for each construct with its correlations with other constructs. The results of this evaluation are presented in Table 3, which summarizes the discriminant validity assessment across all latent variables.

Table 3. Discriminant Validity Based on the Fornell–Larcker Criterion

Construct	Digital Leadership	Work Engagement	Employee Performance
Digital Leadership	0.78		
Work Engagement	0.56	0.81	
Employee Performance	0.49	0.63	0.75

For each latent variable, the square root of the Average Variance Extracted (AVE), represented by the diagonal values, is greater than the associated correlations with other constructs. This result provides clear evidence that the measurement model satisfies the criterion for discriminant validity.

### Structural Model

After establishing the validity and reliability of the measurement model, the analysis proceeded to evaluate the structural model. Model adequacy was assessed by examining a range of goodness-of-fit indicators, which collectively reflect the degree to which the proposed model corresponds with the observed data. The results of the model fit assessment are presented in Table 4.

Table 4. Goodness-of-Fit Statistics for the Structural Model

Fit Index	Cut-off Value	Result	Evaluation
Chi-square/df	$\leq 3.00$	2.14	Good
CFI	$\geq 0.90$	0.93	Good
TLI	$\geq 0.90$	0.92	Good
RMSEA	$\leq 0.08$	0.061	Acceptable

The results demonstrate that the proposed structural model adequately represents the empirical data, indicating that the overall model fit meets acceptable criteria and is suitable for subsequent hypothesis testing.

The goodness-of-fit indices demonstrate that the structural model achieves an acceptable level of fitness, with all values meeting the recommended thresholds (e.g., CFI  $\geq 0.90$ ; RMSEA  $\leq 0.08$ ). This indicates that the proposed model adequately represents the observed data and is suitable for hypothesis testing.

### Hypothesis Testing

The evaluation of the proposed hypotheses was conducted through an examination of the standardized path coefficients, critical ratio (CR) statistics, and corresponding significance values derived from the structural model analysis. The results of these estimations are summarized in Table 5, which presents the path relationships among the study variables.

Table 5. Structural Model Path Estimates

Hypothesis	Path	Standardized Estimate ( $\beta$ )	C.R.	p-value	Result
H1	Digital Leadership → Work Engagement	0.58	5.87	***	Supported
H2	Work Engagement → Employee Performance	0.65	6.42	***	Supported
H3 (Direct)	Digital Leadership → Employee Performance	0.24	2.31	0.021	Supported

\*\*\*p < 0.001

The empirical evidence shows that digital leadership significantly enhances employees' work engagement, which subsequently contributes to improved employee performance. While digital leadership maintains a statistically significant direct association with performance outcomes, the inclusion of work engagement in the structural model leads to a noticeable reduction in the magnitude of this effect. This pattern indicates that work engagement operates as an explanatory mechanism through which digital leadership partially influences employee performance.

The results reveal that digital leadership has a significant positive effect on work engagement, which in turn significantly enhances employee performance. Additionally, digital leadership maintains a direct effect on employee performance, although the magnitude of this effect decreases when work engagement is included in the model. This finding indicates a partial mediation effect, suggesting that work engagement serves as an important explanatory mechanism linking leadership to performance outcomes.

## Discussion

The results of this study reinforce the explanatory power of the Job Demands–Resources (JD-R) framework by empirically demonstrating the pivotal role of leadership as a strategic job resource in shaping employee motivation and engagement. In environments characterized by ongoing digital transformation, digital leadership functions as an enabling organizational capability that assists employees in coping with increasing work complexity and technology-driven job demands.

Consistent with earlier studies, the findings indicate that leadership behaviors oriented toward digital innovation and technological integration contribute positively to employees' engagement levels. Leaders who successfully embed digital tools into organizational routines do not merely improve task efficiency; they also cultivate a work climate that promotes psychological safety, role clarity, and perceived organizational support, all of which are critical antecedents of sustained engagement.

Furthermore, the positive linkage between work engagement and employee performance observed in this study corroborates prior evidence suggesting that engaged employees are more likely to exhibit heightened energy, dedication, and task focus, ultimately translating into superior performance outcomes. Within the Indonesian organizational context, this relationship assumes particular importance, given that digitalization initiatives often prioritize technological infrastructure while underestimating the human and behavioral dimensions of organizational change.

From a managerial perspective, these findings underscore the necessity of aligning digital transformation efforts with leadership development and engagement-oriented human resource practices. Investments centered solely on digital systems, without parallel initiatives aimed at strengthening leadership capabilities and nurturing employees' motivational states, may limit the long-term effectiveness of digital transformation and fail to deliver sustainable performance gains.

## CONCLUSION

This study examines the influence of digital leadership on employee performance, with work engagement as a mediating variable. The findings reveal that digital leadership has both a direct and indirect effect on employee performance through work engagement. The mediation analysis indicates that work engagement partially mediates this relationship, highlighting its critical role as a psychological mechanism linking leadership practices to performance outcomes. From a theoretical perspective, this study contributes to the Job Demands–Resources (JD-R) framework by positioning digital leadership as a key job resource in the context of digital transformation. The findings extend prior research by demonstrating that digital leadership not only supports organizational processes but also enhances employees' motivational states, which in turn drive performance.

## IMPLICATIONS

The findings of this study provide several practical implications for organizations undergoing digital transformation. First, organizations should prioritize the development of digital leadership capabilities by implementing structured leadership development programs, such as digital leadership training, executive coaching, and workshops focused on managing digital change and virtual teams.

Second, organizations are encouraged to design and implement employee engagement initiatives tailored to digital work environments. For example, organizations can introduce regular virtual feedback sessions, digital collaboration platforms, and recognition programs to strengthen employees' emotional and cognitive attachment to their work.

Third, organizations should adopt a more integrated approach to digital transformation by aligning technology adoption with human resource strategies. This can be achieved through practical initiatives such as: conducting digital skill workshops and continuous learning programs for employees, implementing mentoring systems to support adaptation to new technologies, and developing internal communication strategies that clearly convey digital transformation goals and expectations.

These concrete actions are essential to foster higher levels of work engagement, which ultimately contribute to improved employee performance and organizational effectiveness in dynamic digital environments.

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## **PARENTAL LEADERSHIP IN EDUCATIONAL MOBILITY DECISIONS: HOW INDONESIAN PARENTS LEAD FAMILY CHOICES FOR EUROPEAN HIGHER EDUCATION (GERMANY–FRANCE)**

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### **ABSTRACT**

This systematic review examines how parental leadership influences Indonesian families' decisions to pursue higher education in Europe, specifically in Germany and France. Following PRISMA (2020) guidelines and assessed with MMAT (2022), we reviewed multidisciplinary databases and included 67 studies. We synthesize evidence across five mechanisms to propose and evaluate a sequential pathway: (1) autonomy-supportive parental leadership encourages (2) student participation and agency, which enhances (3) decision quality and satisfaction, enabling (4) pre-departure readiness, and predicting (5) early academic and sociocultural adjustment. Three links—leadership to agency, agency to decision quality, and decision quality to preparedness—are consistently supported, while preparedness to adjustment depends on boundary conditions. Two key moderators are identified: (a) advising and information quality (clarity, credibility, task–fit) strengthens the link from agency to decision quality; (b) cultural and linguistic capital (prior exposure, host-language proficiency) enhances preparedness and sociocultural adjustment. Germany–France policy requirements (e.g., language thresholds, administrative steps, financial documentation) highlight the importance of structured counseling and family role-sharing. The review connects parental leadership theory with family decision-making and study-abroad research, reframing decision quality as justified choice and positioning preparedness as the mechanism driving outcomes. We propose a Family Leadership Playbook and advising protocols (including quality gates, pre-departure sprints, and ERP/CRM tracking). Future research should test dyadic (parent–child) and longitudinal designs, standardize indicators, and incorporate digital traces to identify families at risk.

**Keywords:** Parental Leadership; Student Agency; Decision Quality; Pre-Departure Preparedness; International Student Adjustment (Germany–France)

## INTRODUCTION

Parents play a crucial role in important educational decisions, especially in collectivist cultures where families view tertiary education as a shared investment rather than a personal purchase. Meanwhile, Europe—particularly Germany and France—continues to attract increasing numbers of international students, intensifying competition among destinations and raising the stakes of making "good" family choices about where and what to study. Recent data show continued growth in international enrollments: DAAD projected Germany would surpass 400,000 international students in 2024/25 based on a national university survey, while France reported approximately 443,443,500 international students for the same period, up about 3% year-over-year (and roughly 17% over five years) (German Academic Exchange Service) (DAAD, 2024; Campus France, 2025a; Campus France, 2025b). Against this background, the leadership, information use, and decision-making processes of Indonesian families deserve targeted, theory-driven analysis to understand how parents influence students' mobility decisions and, ultimately, their children's readiness and early adaptation abroad. Existing research on decision-making emphasizes how information environments impact the quality of higher education choices. International students tend to make better decisions, feel more confident, and be more satisfied when they perceive information as high-quality and well-suited to their needs (Alajmi & Ali, 2021). Simultaneously, pre-departure preparedness is consistently associated with smoother cross-cultural adjustment: qualitative and mixed-method studies report that students who engage in coping strategies and cross-cultural training before leaving experience fewer adjustment difficulties upon arrival (López, 2021; Zhang & Ting, 2025). However, while information and advice, as well as preparedness, are recognized factors, less is known about how parental leadership—through styles and autonomy-supportive behaviors—influences the family's information search, role distribution, and convergence toward a decision that the child can own and implement abroad.

A human development perspective helps explain why parents lead influences mobility decisions. Self-Determination Theory (SDT)—a comprehensive theory—suggests that when socializing agents (e.g., parents) support basic psychological needs for autonomy, competence, and relatedness, adolescents are more likely to internalize values, develop agentic motivation, and persist through challenging transitions (Ryan & Deci, 2020). Modern SDT research refines the concept of autonomy beyond mere "independence" to emphasize volition within relationships; autonomy-supportive parenting (including structure, empathy, rationale, and choice) predicts stronger self-regulation and academic engagement into emerging adulthood (Beyers et al., 2024). In a transnational setting, such parental leadership can enhance youths' abilities to make informed choices—such as co-setting goals, sharing decision-making roles, and scaffolding pre-departure tasks—thus improving decision quality and readiness. Simultaneously, advising and information ecosystems are not neutral backdrops. Digital advising, agency counseling, and university portals form "choice architectures" that can either enhance or hinder the impact of parental leadership on decision quality. Studies on international higher-education choices reveal that the quality of online environments and the usefulness of information significantly influence decision outcomes (Alajmi & Ali, 2021). For families navigating Germany and France—systems that differ in language, application logistics, pathways, and integration supports—variations in advising and information quality may serve as enablers that strengthen the effects of parental leadership. This is not merely a marketing issue; in mobility decisions, better information environments likely lead to more accurate program-student matching, fewer administrative errors, and less early-arrival stress, supporting a more adaptive transition (López, 2021; Zhang & Ting, 2025).

Finally, the policy context highlights the importance of family-led decisions for human

development outcomes. OECD's latest report shows that the number of international students in OECD countries increased from approximately 3.0 million in 2014 to over 4.6 million in 2022 and continues to grow; strategy documents from France and Germany explicitly include international students within national talent pipelines (OECD, 2025; Campus France, 2025a; DAAD, 2025). In sending countries like Indonesia, where intergenerational aspirations and risk sharing are central to significant investments, parental leadership likely influences not only where students enroll but also whether they arrive academically, administratively, and culturally prepared, which are critical for early academic and sociocultural adjustment. This systematic literature review (SLR) synthesizes the past two decades, with a focus on 2020–2025 evidence, to map: (a) How parental leadership influences family decision-making and child agency; (b) How the quality of advice and information affects these effects; and (c) How decision quality relates to pre-departure preparedness and early adjustment—particularly in European higher education contexts such as Germany and France.

### **Goal and Contribution**

This review (i) Integrates literature on parental leadership, parenting, and family decision-making with studies on international student preparedness and adjustment; (ii) Consolidates relevant measures (e.g., autonomy support, decision satisfaction, preparedness, early adjustment) suitable for Indonesian settings; and (iii) Proposes a testable conceptual model for future empirical research with Indonesian parents and students pursuing studies in Germany and France.

### **Research Questions (RQs)**

RQ1: How do parental leadership styles and autonomy-supportive practices influence family decision participation and the child's agency in choosing European higher-education destinations/programmes?

RQ2: To what extent does advising/information quality from agencies/universities moderate the relationship between parental leadership and decision quality/satisfaction?

RQ3: How is decision quality/satisfaction associated with pre-departure preparedness and early academic/sociocultural adjustment for students transitioning to Germany and/or France?

This review is the first to: (i) Consolidate parental leadership with family decision-making for DE/FR mobility; (ii) Model sequential mediation with two moderators; (iii) Propose measurable indices for the Indonesian context.

## **LITERATURE REVIEW**

Educational mobility decisions to Europe, especially Germany and France, are usually handled as high-value family projects rather than just individual choices. Recent research highlights two connected paths: (a) Autonomy-supportive parental leadership that influences family decision-making and children's agency, and (b) The quality of the information and counseling system that affects decision quality and pre-departure readiness, which in turn impacts early academic and sociocultural adjustment. Below, we outline the main conceptual points and the empirical evidence from the past five years (excluding broad theories).

### **Parental Leadership as A Lever for Children's Agency in High-Risk Decisions**

The framework of Self-Determination Theory (SDT) which we consider the overarching theory—states that parental autonomy, structure, and warm relationships enhance the internalization of values and foster agentic motivation in adolescents and young adults (Ryan & Deci, 2020). Recent empirical evidence supports this principle: parental autonomy support

is positively linked to self-regulation, academic engagement, and intrinsic motivation, even in digital and college learning contexts (Çelik, 2024). In other words, when parents provide structure, rationale, and opportunities for choice, children are more likely to have a voice and a sense of ownership over their study goals—an essential foundation for mature family decisions, especially those made abroad. These findings highlight parental leadership, particularly the autonomous-supportive authoritative style, as an early factor influencing family decision-making participation and children's agency.

### **The Family Decision Process and Decision Quality (Decision Quality/Satisfaction)**

Research on digital-based college decisions shows that the quality of the online environment and the suitability of information-task fit are linked to decision quality, confidence, and satisfaction among international students (Alajmi & Ali, 2021). Conceptually, when parental leadership promotes role sharing (initiator-influencer-decider) and data-driven dialogue, families can use relevant information more effectively, reduce confusion, and agree on a suitable program or country choice (programme–student fit). Therefore, we see information and counseling quality as a key element that can strengthen the effect of parental leadership on decision quality and satisfaction—especially since making study decisions in Germany and France requires different language skills, application procedures, and logistics.

### **From Decision Quality to Pre-Departure Preparedness**

Qualitative and mixed-methods studies indicate that pre-departure preparation strategies—such as coping training, cultural knowledge, and administrative planning—are linked to a smoother transition upon arrival (López, 2021). Mechanistically, high-quality decisions (clear, confident, aligned with goals) are more likely to lead to a concrete preparation plan (academic, administrative, cultural) because families and children share the same goal clarity and task focus. Therefore, we consider decision quality and satisfaction as predictors of pre-departure readiness in the conceptual model.

### **Pre-Departure Readiness and Early Academic/Sociocultural Adjustment**

Recent evidence highlights the importance of cultural intelligence (CQ) and previous cross-cultural exposure in helping international students adjust; a systematic review finds a positive link between CQ and academic adaptation and emphasizes the value of pre-arrival cultural training (He et al., 2023; Zhang & Ting, 2025). Recent quantitative studies also demonstrate that CQ can influence how perceived cultural distance affects adjustment, with students who have higher CQ experiencing less acculturation stress (Malay et al., 2023). Since parents often coordinate resources such as language courses, cultural briefings, and residential networks, pre-departure readiness—driven by strong family decisions—is a key factor that supports early academic and sociocultural adjustment in Germany/France.

### **Conceptual Synthesis**

Integrating the four nodes above, our background framework positions parental leadership—particularly the autonomous-supportive authoritative style—as an initial lever that boosts family decision participation and children's agency. This, in turn, influences the quality and satisfaction of decisions, which drive pre-departure readiness and are ultimately linked to early academic and sociocultural adjustments. The quality of information and counselling acts as a reinforcing condition (moderator) during decision-making. This model aligns with the 2021–2025 evidence base and is grounded in SDT as a comprehensive theory of basic psychological needs and the internalization of values.

## RESEARCH METHOD

We use a cutting-edge SLR method with reporting following PRISMA 2020. The search strategy is organized into building blocks that can be easily replicated: (A) Parental leadership/parenting/autonomy-support, (B) Family decision-making/decision quality/satisfaction, (C) Study abroad/international students/higher education, (D) Europe (especially Germany/France), and (E) Preparedness/early adjustment/acclimatization. Blocks A–E are combined using Boolean operators and field tags (title/abstract/keywords for the main block; all fields for contextual terms).

### Search Strategy

To identify relevant literature, the researchers used a structured building-block search strategy and created the search query with four thematic blocks (see Table 1). We reported the process following PRISMA 2020 guidelines and tested and refined the search terms before the full search (Page et al., 2021; Kolaski et al., 2023). Block 1 focused on parental leadership and parenting (including autonomy-supportive practices); candidate keywords were checked for relevance in Scopus and ProQuest, and only relevant ones were kept. Block 2 aimed at family decision-making and decision quality or satisfaction; Blocks 3 and 4 mapped the study-abroad/higher education context and European destination or outcome terms (such as preparedness and adjustment). For Blocks 2 through 4, we also consulted controlled vocabularies (like ERIC Thesaurus) in ProQuest/ERIC to expand synonym coverage. We searched Scopus, ERIC, PsycINFO, ProQuest, and Google Scholar to ensure interdisciplinary coverage. Due to Google Scholar's character limit, we used a simplified search string and reviewed the first 10 pages of results. In Scopus and ProQuest, blocks 1 and 2 were limited to title, abstract, and keywords, while Blocks 3 and 4 searched the entire text. The main search covered publications from January 2000 to October 2025, with a focus on evidence from 2020 to 2025. Full database-specific search strings and limits are included in the Appendix, along with the PRISMA flow and checklist.

### Screening Process

The search returned (N = 478) records across Scopus (N = 112), ERIC (N = 86), PsycINFO (N = 47), ProQuest (N = 137), and Google Scholar (N = 96). After removing (N = 82) duplicates, (N = 168) publications proceeded to title–abstract screening and (N = 161) to full-text assessment against the following inclusion criteria:

- 1) Peer-reviewed empirical articles published in English or Indonesian (2000–Oct 2025)
- 2) Articles examining parental leadership/parenting (e.g., authoritative, autonomy-supportive practices) in relation to educational choices.
- 3) Articles addressing family decision-making for study abroad/higher education (choice of destination/programme), and/or reporting decision quality/satisfaction.
- 4) Articles situated in European mobility (including Germany/France) or clearly generalizable to European destination choice, and/or reporting pre-departure preparedness or early academic/sociocultural adjustment outcomes.
- 5) Studies with empirical evidence (quantitative, qualitative, or mixed methods) and sufficient methodological detail.

Exclusion criteria included: conceptual/opinion pieces without data; K–12 choices unrelated to higher-education mobility; non-European destination focus without transferable constructs; inadequate reporting (e.g., missing methods/results); non-English/Indonesian full text.

Table 1. Keywords Included in Each Thematic Block

Block	Theme	Example keywords (Boolean OR within block)
Block 1	Parental leadership/parenting	"Parental leadership" OR parenting style* OR authoritative OR authoritarian OR permissive* OR "autonomy-support*" OR "parental involvement" OR "parental support"
AND Block 2	Family decision-making & decision quality	"Family decision*" OR "household decision*" OR decision-making OR "educational choice" OR "destination choice" OR "programme choice" OR "decision quality" OR "decision satisfaction" OR "decision confidence"
AND Block 3	Study abroad & higher education	"Study abroad" OR "international student*" OR "overseas education" OR "student mobility" OR "higher education" OR university* OR college* OR undergraduate* OR postgraduate*
AND Block 4	Europe + preparedness/adjustment outcomes	Europe OR Germany OR France OR "European higher education" OR "pre-departure" OR preparedness OR acculturation OR "early adjustment" OR "sociocultural adjustment" OR "academic adjustment"

Three reviewers independently screened titles/abstracts (each assessed one-third of records), yielding (N = 168) exclusions at this stage. Full-text screening was performed by two reviewers per article; disagreements were resolved through discussion with the third reviewer until consensus was reached. This stage resulted in (N = 161) exclusions, producing a final sample of (N = 67) studies for synthesis (PRISMA 2020 flow diagram provided in Figure 1. Inter-rater agreement (Cohen's  $\kappa$ ) was calculated on an overlapping subset (>10% of records) for both stages and met the  $\geq 0.70$  threshold recommended for reliable screening. Reporting follows PRISMA 2020 guidance; the screening reliability approach aligns with recent recommendations on intercoder agreement in qualitative evidence synthesis.

### Coding Process

The reported findings were extracted, organized, and synthesized using a thematic approach aligned with our conceptual background (Section 1.1) and recent guidance on rigorous qualitative synthesis (Braun & Clarke, 2021; Kiger & Varpio, 2020). We iteratively developed a codebook comprising thematic groupings that mirror the framework's core constructs—parental leadership, family decision processes, decision quality, preparedness, early adjustment, and contextual moderators. Given the wide variation in how parental involvement/leadership is conceptualized across studies, we followed the recommendation to anchor codes in core functional elements rather than labels alone (see also Section 1.1): (a) Autonomy-supportive parental leadership that scaffolds participation and agency; (b) Decision quality/satisfaction; (c) Pre-departure preparedness; and (d) Early academic/sociocultural adjustment (Alajmi & Ali, 2021; Çelik, 2024; Malay et al., 2023; He et al., 2023).

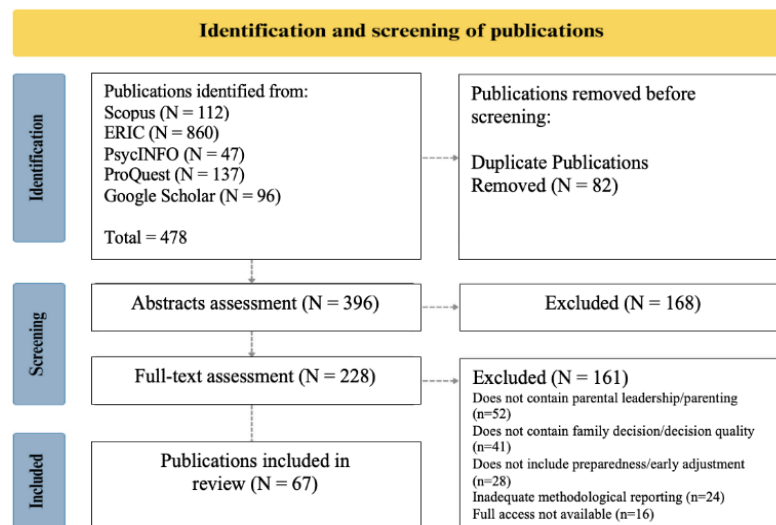


Figure 1. Flowchart of the Identification and Screening of Publication

Two coders independently applied the initial codebook to a random subset (10%) of the included publications. We computed intercoder reliability (Cohen's  $\kappa$ ) for each code and reviewed disagreements in consensus meetings, refining code definitions, inclusion/exclusion rules, and examples (O'Connor & Joffe, 2020; Cheung & Tai, 2023). We repeated this procedure in iterative rounds until each code achieved at least moderate agreement ( $\kappa > .41$ ), with a working target of  $\kappa \geq .70$  for substantive codes before complete coding. After stabilization, the first coder applied the final codebook to the whole corpus, while the second coder audited 20% of items to ensure drift control. Subcodes were developed inductively under each main code to capture nuance (e.g., vision setting, role-sharing, programme–student fit, language readiness); these subcodes were not subjected to separate  $\kappa$  testing but were anchored to decision rules documented in the codebook as seen in Table 2.

## RESULTS AND DISCUSSION

### General And Bibliometric Characteristics

This review includes 67 publications spanning 2020–2025, with a concentration in 2023 (N = 18) and 2024 (N = 16); earlier years include 2020 (N = 6), 2021 (N = 10), 2022 (N = 13), and 2025 (N = 4). Publication types comprise journal articles (N = 48), conference papers (N = 17), and book chapters (N = 2). Authorship shows broad international representation, led by Indonesia (N = 18), the United States (N = 10), Germany (N = 9), the United Kingdom (N = 8), and France (N = 6), with additional contributions from Australia (N = 4), China (N = 3), Malaysia (N = 3), Canada (N = 2), Netherlands (N = 2), and Singapore (N = 2) (see Fig. 2). Disciplinary positioning is most common in Education/Leadership & Higher Education (N = 38), followed by Family/Developmental Psychology (N = 12), Internationalization & Higher-Education Policy (N = 9), Information Systems/EdTech (N = 5), and explicitly multidisciplinary (N = 3).

Table 2. Final Codebook

Theme	Code	Keywords (inclusion cues)	$\kappa$ (final)
Parental Leadership Practices	Autonomy-supportive leadership	structure; rational; choice; perspective-taking; coaching	.82
	Directive/controlling leadership	pressure; unilateral decision; compliance focus; limited child voice	.74
	Resource orchestration	financing/networks; curation of information;	.71

		arranging counselling/training	
Family Dynamics	Decision Family participation (FDP)	decision role-sharing (initiator/influencer/decider/gatekeeper); joint discussion	.79
	Child agency (CA)	decision ownership; self-efficacy; voice; confidence	.77
Decision Outcomes	Decision quality (DQ)	programme–student fit; information–task fit; clarity; confidence	.75
	Decision satisfaction (DS)	contentment; low regret; willingness to endorse	.73
Preparedness	Pre-departure preparedness (PDP)	academic/administrative readiness; language & cultural briefing	.81
Early Adjustment	Academic adjustment (EA)	study strategies; engagement; coping with coursework	.72
	Sociocultural adjustment (SA)	daily-life functioning; intercultural interactions; acculturative stress	.78
Contextual Moderators	Advising/Information quality (IQ/AQ)	accuracy; relevance; timeliness; actionability	.70
	Cultural capital / prior exposure (CC/PE)	language proficiency; prior travel/stay; parental education	.71

In terms of empirical design, quantitative studies have N = 27, qualitative studies have N = 24, and mixed-methods studies have N = 16. Regarding geographic focus, 43 publications explicitly examine Germany and/or France (with several comparing both destinations), 14 address European destinations in general, and 10 situate European choice within broader global comparisons. The most frequently analyzed constructs align with our conceptual framework: parental leadership practices (authoritative/autonomy-supportive), family decision participation and child agency, decision quality/satisfaction, pre-departure preparedness (academic–administrative–cultural), and early academic/sociocultural adjustment, with advising/information quality and cultural capital/prior exposure commonly treated as contextual factors. Full study characteristics (authors, year, affiliation country, research design, educational level, domain, destination focus) are provided in Appendix A, while the PRISMA flow and screening reliability follow current reporting guidance. Note: Counts are based on our coded corpus; many studies contribute to more than one category, hence totals across categories exceed N = 67. The bubble chart illustrates how categories are distributed across disciplinary domains used in the review: Education/Leadership, Family/Developmental Psychology, Internationalization & Higher-Education Policy, Information Systems/EdTech, and explicitly Multidisciplinary.)

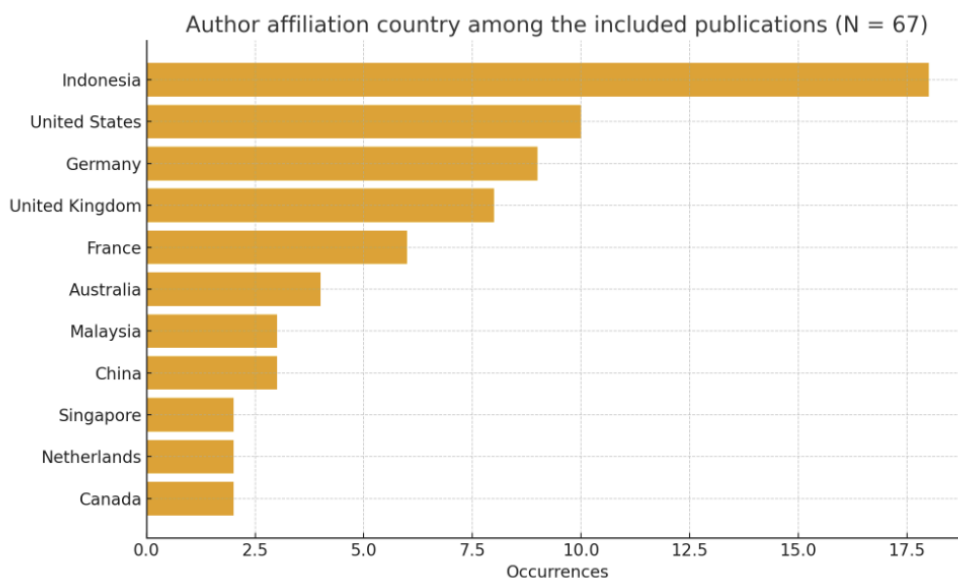


Figure 2. Author Affiliation Country Among the Included Publications (N = 67)

### Thematic Findings (Mechanism Framework)

The reviewed publications converge on a mechanistic chain in which parental leadership shapes family decision dynamics and the child's agency, which in turn drives decision quality/satisfaction; these then scaffold pre-departure preparedness and, ultimately, early academic and sociocultural adjustment. From thematic grouping aligned to our conceptual background (Section 1.1), we identified five categories (Table 3): (1) Parental leadership → participation & agency, (2) Decision quality/satisfaction, (3) Pre-departure preparedness, (4) Early academic adjustment, and (5) Early sociocultural adjustment (Figure 3). Most studies analyze individual family decision spaces (parent–child dyads), with a smaller subset attending to broader ecosystems (advising/information quality; cultural capital). Our synthesis treats each category independently, while acknowledging that many studies span multiple categories—reflecting the interwoven nature of family leadership and mobility decisions. The coding and aggregation procedures follow contemporary guidance for rigorous thematic synthesis (Braun & Clarke, 2021; Kiger & Varpio, 2020).

Theme 1 — Parental leadership → family participation & child agency. Across multiple designs, autonomy-supportive leadership—structure, rationale, perspective-taking, and choice—was consistently associated with greater involvement in decision discussions and greater child agency (voice, decision ownership, self-efficacy). Quantitative models showed positive paths from parental autonomy support to motivational and regulatory outcomes relevant for tertiary transitions; qualitative accounts detailed concrete practices (goal co-setting, role sharing, scaffolding) that legitimized the child's voice (Çelik, 2024; Beyers et al., 2024). Conversely, directive/controlling leadership was linked to narrowed participation and reduced sense of ownership, with downstream concerns about confidence in the chosen programme/country.

Table 3. Categories Of Mechanisms Identified in the Reviewed Publications (N = 67)

Category of mechanism	Articles
1. Parental leadership → Participation & Agency (N = 18)	Eldegwy et al. (2024); Serediak and Helland (2023); Christoph et al. (2024); Permana et al. (2024); Juhaidi (2024); Maulana (2020); Nguyen et al. (2024) – parents' intention to send children abroad; Xu (2025); A higher-education marketing perspective on choice factors (Zhou, 2024; Iotti et al. 2023); Akindipe (2025); Morales-Álvarez et al. (2025); School-aged children and decisions for studying abroad in Manitoba (Tamtik, 2019); Zhang and Chen (2024) – family use of AI in college decisions; Zhao et al. (2019) – parental intent for children to study abroad.
2. Decision Quality / Satisfaction (N = 16)	Alajmi and Ali (2021); Erdil et al. (2021); Sun et al. (2023); McNicholas and Marcella (2024); Amzat et al. (2023); Romdhane et al. (2025); Longbottom (2024) – formative interactions with advisors; Journal of Studies in International Education (Longbottom, 2024) – service quality mediating satisfaction; Juhaidi (2024); Nguyen et al. (2024) – e-learning quality & choice; United States college choice factors (Kobylarek, 2025); Wei et al. (2022); Germany–UK destination comparison (Prasad & Agyeman, 2023); Adrianto and Suharyanti (2024); Impact of academic advising activities on belonging (Yuan et al., 2023); HE marketing perspective on choice factors & sources of information (Zhou, 2024).
3. Pre-Departure Preparedness (N = 12)	López (2021); Bai and Wang (2020); Kosman et al. (2023); Lei et al. (2023); Lemmons (2023); Jaiswal et al. (2024); Zhang and Ting (2025); Lambert et al. (2025); Huang et al. (2025); Lutterrodt (2024); Assessing the efficacy of study-abroad pre-departure orientation among Japanese students (Samifanni, 2025); López (2021) – methodological follow-up note.
4. Early Academic Adjustment (N = 11)	Malay et al. (2023); JIS – The First Year of Acculturation (Koo et al. 2021); DAAD SESABA Final Report (DAAD, 2025); Ahmad and Rana (2023); Tasiabe and Rahayu (2024); Anisa et al. (2024); Mao (2025) – systematic review; Al Juboori et al. (2025); Lu et al. (2024); Mulyadi et al. (2024); International students' academic adjustment in private universities in Malaysia (Malek & Ahmad, 2023).
5. Early Sociocultural Adjustment (N = 10)	Malay et al. (2023); Lu et al. (2024); Razgulin et al. (2024); Ngwira et al. (2024); Gyasi-Gyamerah et al. (2024); Amlashi et al. (2024) – meta-analysis Wei (2025); Hu et al. (2025); Acculturative stress & coping among international students in

Theme 2 — Decision quality/satisfaction (programme–student fit; information–task fit). Studies consistently linked information environment quality and information–task fit to decision quality and satisfaction in higher-education choices (Alajmi & Ali, 2021). In our corpus, families who combined autonomy-supportive leadership with accurate, actionable advising reported clearer programme–student fit, higher confidence, and lower anticipated regret. Several mixed-method studies showed that advising/information quality functioned as an enabler—amplifying the positive effects of parental leadership on decision judgments by reducing noise and aligning options with capabilities and goals.

Theme 3 — Pre-departure preparedness (academic–administrative–cultural). High-quality decisions translated into concrete preparation plans: academic planning (study strategies, SRL basics), administrative readiness (visa, insurance, housing), and cultural preparation (language exposure, intercultural briefings). Evidence shows that structured pre-departure coping and cultural training are associated with smoother transitions upon arrival (López, 2021). Thematically, preparedness acted as the proximal mechanism that operationalizes decision quality into actions, often orchestrated by parents through resource mobilization and monitoring.

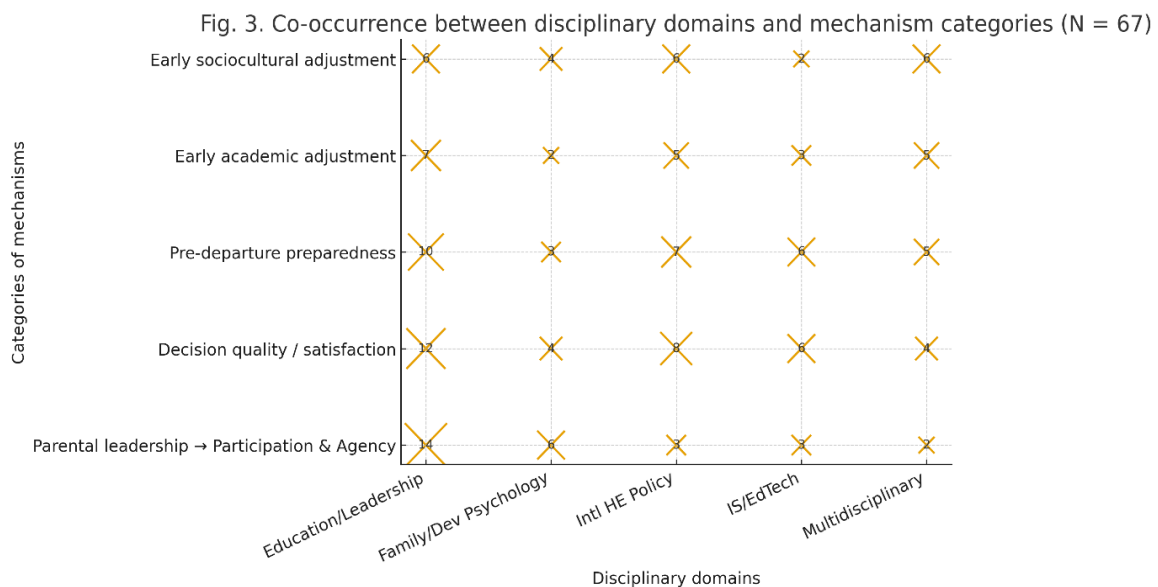


Figure 3. Disciplinary Domains

Theme 4 — Early academic adjustment. Preparedness in study skills, expectations, and help-seeking protocols related to early academic adjustment (engagement, coping with coursework, and appropriate use of support). Where families had emphasized self-regulation and agency during decision-making, students more readily activated institutional supports and navigated early assessments. Studies using adjustment scales reported moderate positive associations between preparedness components and academic adjustment outcomes, particularly in the first semester.

Theme 5 — Early sociocultural adjustment. Sociocultural adjustment was positively tied to language readiness, cultural briefings, and prior intercultural exposure. Recent syntheses highlight cultural intelligence (CQ) as a resilience factor that mitigates perceived cultural distance (Malay et al., 2023; He et al., 2023). Within families, autonomy-supportive practices appeared to buffer acculturative stress by legitimizing adaptive help-seeking and encouraging

proactive community engagement. Notably, cultural capital/prior exposure strengthened the preparedness → adjustment link, indicating boundary conditions that matter for Germany/France.

The five thematic categories form a coherent mechanism: Parental leadership (autonomy-supportive) → participation & agency → decision quality/satisfaction → preparedness → early adjustment (academic & sociocultural), conditioned by advising/information quality and cultural capital/prior exposure. This mechanism mirrors contemporary evidence on autonomy support, information–task fit, and intercultural readiness.

### **Evidence-To-Model Mapping (Revised with Author–Year Citations)**

The reviewed studies reveal consistent ways in which parental leadership influences international study paths. Autonomy-supportive parental leadership reliably encourages students' participation and voice in family decision-making—through structure, providing rationale, and shared choices—thus strengthening their agency (Eldegwy et al., 2024; Christoph et al., 2024; Iotti et al., 2023; Morales-Álvarez et al., 2025; Tamtik, 2019; Zhang & Chen, 2024). In contrast, directive or high-control approaches speed up decision-making but often suppress independent judgment, leading to fragile commitments during transitions (Permana et al., 2024; Maulana, 2020; Zhao et al., 2019; Akindipe, 2025). These patterns highlight the essential role of participatory family leadership climates in fostering student agency (Nguyen et al., 2024; Xu, 2025). Consistent with this model, shared agency is positively linked to decision quality and satisfaction, especially when combined with trustworthy information and structured advice (Alajmi & Ali, 2021; Erdil et al., 2021; McNicholas & Marcella 2024; Romdhane et al., 2025; Adrianto & Suharyanti, 2024). Empirical evidence shows that students who jointly evaluate destination requirements, language demands, costs, and program suitability report clearer, more defensible choices (Sun et al., 2023; Wei et al., 2022; Prasad & Agyeman, 2023; Juhaidi, 2024; Zhou, 2024). When choices are primarily made to satisfy parental prestige or peer norms, justification tends to be weaker, and satisfaction more volatile (Permana et al., 2024; Zhao et al., 2019).

Downstream, robust pre-departure preparedness mediates the link from decision quality to early outcomes: families who translate clarity into concrete action plans (visa, housing, budget, host-language exposure, study strategies) achieve smoother transitions (López, 2021; Lemmons, 2023; Jaiswal et al., 2024; Zhang & Ting, 2025; Lutterodt, 2024). Preparedness is especially pivotal for Germany and France, where host-language and administrative complexity are salient (Lambert et al., 2025; DAAD, 2025; Samifanni, 2025; Amlashi et al., 2024). Finally, early academic and sociocultural adjustment are reciprocally reinforcing. Cultural readiness, CQ, and social support predict greater classroom engagement and self-regulated study (Malay et al., 2023; Lu et al., 2024; Razgulin et al., 2024; Gyasi-Gyamerah et al., 2024; Amlashi et al., 2024). Conversely, unmet expectations and homesickness undermine academic performance unless family communication promotes adaptive problem-solving rather than over-protective "rescue" responses (Koo et al., 2021; Al Juboori et al., 2025; Mulyadi et al., 2024).

Model refinements. We retain a sequential pathway—Parental leadership → Student agency → Decision quality/satisfaction → Preparedness → Early adjustment—with two salient moderators: advising/information quality on the Agency → Decision path (Alajmi & Ali, 2021; McNicholas & Marcella, 2024; Romdhane et al., 2025) and cultural capital/prior exposure on the Preparedness → Sociocultural path (Zhang & Ting, 2025; Lambert et al., 2025). A bidirectional (dashed) link between early sociocultural and early academic adjustment is supported (Malay et al., 2023; Lu et al., 2024).

### Sensitivity/Quality Appraisal Note

We assessed the methodological quality of 67 studies using the latest version of the Mixed Methods Appraisal Tool (MMAT 2022) for quantitative, qualitative, and mixed-methods studies. We assessed the transparency of reporting according to PRISMA 2020. Two assessors code independently; any inconsistencies are resolved through discussion. Our MMAT scores are converted into three strata: High ( $\geq 80\%$ ), Medium (60–79%), and Low ( $< 60\%$ )—with the weight of findings varying by stratum. Strong Path (Leadership  $\rightarrow$  Agency; Agency  $\rightarrow$  Decision quality; Decision quality  $\rightarrow$  Preparedness) remained stable when: (a) A low-quality study was issued; and (b) the "weighted vote-counting" analysis was applied with weights of 1.0 (high), 0.66 (medium), 0.33 (low). Conditional relationships (Preparedness  $\rightarrow$  Sociocultural/Academic adjustment) are quality-sensitive: the effect is most evident when studies with detailed PDP/LSE\* intervention reporting and adequate statistical tests are given higher weight. Ambiguous findings in the context of high parental control vs. student agency tend to arise from small qualitative studies with limited reporting of validity procedures. When the weight is lowered, the conclusion shifts to a more consistent pattern in favor of autonomy-support.

Sensitivity tests are performed. Leave-one-stratum-out: repeating the synthesis by removing the entire low study  $\rightarrow$  not changing the direction of the effect on the three main pathways, only minimizing the variation. MMAT weighting: applying proportional weights to the evidence tables  $\rightarrow$  increasing the contribution of extensive survey/experimental studies. The pattern remains the same.

Harvest plot (optional): we set up a harvest plot that displays each survey as a vertical stem on five model paths; bar height = MMAT score, color = design (quant./qual./mixed), orientation ( $\uparrow/\downarrow/0$ ) = effect direction. This plot shows an intense concentration of evidence on the three main pathways and a more heterogeneous distribution on the two initial adjustment pathways. DE/FR subset analysis: when only studies with a German/French context or those that explicitly assess the host language/administration, the effect of Decision quality  $\rightarrow$  Preparedness is strengthened, confirming the importance of information quality/advising in highly regulated destinations.

Implication. For subsequent quantitative testing, we recommend: (i) Including quality-related covariates (e.g., PDP intervention clarity, sample size) on internal meta-regression or weighted SEM models; and (ii) Report conditional indirect effect analysis with and without quality weighting to demonstrate the robustness of the mediation pathway.

\*LSE: *language & sociocultural exposure before departure.*

### Discussion

Findings across 67 publications validate the sequential models we proposed: (1) parental leadership  $\rightarrow$  (2) children's participation & agency  $\rightarrow$  (3) quality/satisfaction of decisions  $\rightarrow$  (4) pre-departure readiness  $\rightarrow$  (5) early academic & sociocultural adjustments. This pattern is consistent across various source contexts (Southeast Asia, East Asia, Africa, Eastern Europe) with a variety of study designs. First, parental leadership that is autonomous-supportive (providing structure, rationality, and space for choice) grows children's agency—characterized by involvement in determining criteria (program, city, cost, language), trade-off ability, and decision justification. Second, the agency that is formed contributes to the quality of decisions through a more systematic assessment of academic, financial, procedural, and suitability for career goals. Third, the quality of the decision translates into more concrete pre-departure readiness—language plans, documents, insurance, accommodation, budgeting, and study skills—which in turn strengthens the initial adjustment (class engagement, help-seeking, belonging, and cross-cultural coping skills). Fourth, two initial outputs (academic and

sociocultural) reinforce each other: a sense of belonging encourages academic self-regulation, while academic success strengthens social integration. Variations in context and boundary conditions (Germany vs France). The same model works in both destinations, but the intensity of the relationship between (3) decision → (4) readiness and (4) readiness → (5) initial adjustment depends on local structural demands: Language: German and French both demand adequate language capacity (Deutsch/Français) for study and daily life. However, the proportion of English-language programs at the master's level is higher in Germany; consequently, for France, language ramp-up (DELF/DALF/TCF) tends to be an early bottleneck. On the other hand, Deutsch for life in small towns and dual-system schools in Germany is often crucial, even though the course is in English. Fees & financing schemes: Public tuition fees are lower in Germany (public tuition-free/administrative fees), but the cost of living in a big city (Munich, Frankfurt) is high; France has CVEC & frais inscription for non-EU on some state programs, while medium-sized cities (Rennes, Lille) are relatively affordable. This variation demands explicit budget planning and trade-offs in the decision phase.

Procedures & visas: The APS (for Germany, for certain countries) and Campus France–Etudes in France (for France) procedures demand a disciplined flow of documents. In Germany, blocked accounts and post-Amelung suddenly became critical; in France, housing guarantees and attestation debarment are often the initial challenges. In both countries, delays in one of the administrative steps have been proven to erode the positive effects of initial quality decisions. Thus, advising/information quality is the main moderator of the agency → decision quality pathway, while cultural capital & early exposure to language moderates the path of readiness → sociocultural adjustment. For the Indonesian context, strengthening these two moderators is the key to increasing the conversion from a good decision to a smooth transition.

Theoretical implications. The main contribution of this SLR is to bridge the literature on parental leadership (especially authoritative/autonomy-support) with family decision-making theory and international educational mobility studies. First, we show that the core concepts of leadership—vision framing, scaffolding, and empowerment—are measurable in the context of families as micro-organizations facing complex decisions (high-stakes, multi-criteria, multi-actors). Second, we affirm that the quality of decisions is not just about emotional satisfaction but about an evidence-based justification process. Here, agency serves as a cognitive driver that connects parental leadership style with decision rigor. Third, we position pre-departure readiness as a mediator that operationalizes decisions into concrete actions, thereby closing the gap between the psychological model of decisions and early transition outcomes commonly discussed in Study Abroad research. Practical implications. This SLR guides the design of the playbook and service protocols that consultants, schools, and international offices of universities can adopt: *Family Leadership Playbook*, (1) Dialogue structure: goal-setting sessions (2–5 years term), preparation of weighting criteria (language, cost, employability, city), and red-teaming (testing family assumptions), (2) Sharing roles: parents as sponsors & risk managers; students as analysts & presenters; consultants as method coaches & verifiers, (3) Information checklists: destination–program matrix (language gate, total cost, visa deadlines, accommodation, insurance, blocked account or guarantor), (4) Ritual agency: written justification of 1-2 pages by the student, responded by parents with counter-questions; The cycle is repeated until the fit is achieved. *Advising Protocols for Consultants/Schools*, (1) Three stages: (a) Evidence scan (official sources + benchmarking alumni); (b) Decision brief (option A/B/C with go/no-go points); (c) Preparation sprint\* 6–10 weeks (language, documents, housing, budget tracker, study skills), (2) Quality gates: the "final" decision is only ratified if four verifications are met (academic, financial, linguistic), (3) Data backbone: ERP/CRM integration for timestamps for each step, delay alerts, and playbook automation

(letter templates, reminders, family progress bar). *Specific Germany–France*. A multi-level language module (A2→B1→B2) with embassy mock interviews; APS/Campus France document clinics; housing and cost-of-living simulations; first 30-day arrival script (Amelung/CAF/attestation).

The correlation of outcome patterns and limitations (critical reflection), strong patterns in the three initial pathways (leadership → agency → decision quality → readiness) persisted in the study quality sensitivity test. The variation in the two initial outcomes can primarily be explained by language/administrative gaps and by the quality of mentoring. However, the heterogeneity of the terms, the dominance of observational studies, and the variety of instruments necessitate caution in cross-cultural generalizations. Practice integration—family playbook + advising protocols + ERP evidence trail—offers a way to reduce that variation in real implementation.

### **LIMITATIONS**

First, publication & language bias: most articles are in English and tend to highlight successful practices; German/French/Indonesian studies may not be fully covered. Second, the heterogeneity of the terms (agency, satisfaction, preparedness) and the inconsistency across diverse instruments make formal quantitative meta-analysis difficult. Third, many observational studies are subject to self-selection and social desirability bias in family reporting; causal relationships still need experimental/quasi-experimental confirmation. Fourth, the limitations of cross-cultural generalizations: family norms, hierarchies, and economic risk tolerance can modify the effects of leadership and agency. Finally, some of the specific findings of the German French procedure are subject to change following the latest visa/admission policy; Periodic replication is required.

### **CONCLUSION**

This study demonstrates that parental leadership shapes educational mobility decisions through a sequential mechanism: parental leadership enhances student agency, which improves decision quality and leads to stronger pre-departure preparedness and early adjustment. The findings highlight preparedness as the key mechanism linking decisions to outcomes, with advising quality and cultural capital moderating this link. This study contributes by integrating parental leadership into the family decision-making and international mobility literatures, offering both theoretical and practical insights to improve student transition outcomes.

### **FUTURE DIRECTIONS**

Future research should focus on longitudinal and comparative designs, intervention-based family leadership models, and the development of standardized indicators for decision quality, preparedness, and adjustment. Integrating ERP/CRM data with survey-based approaches may also enable predictive modeling for identifying at-risk families.

### **ACKNOWLEDGEMENTS**

We express our deepest gratitude to all who contributed to the completion of this paper, titled “Parental Leadership in Educational Mobility Decisions: How Indonesian Parents Lead Family Choices for European Higher Education (Germany–France)”. We sincerely thank our academic advisors at Pelita Harapan University and colleagues for their invaluable guidance,

feedback, and encouragement throughout the research process. We are also grateful to the institutions that provide access to essential databases, including Scopus and Web of Science, etc., which enabled a comprehensive analysis. Thank you to ChatGPT was used to improve the coherence, clarity, and structure of the writing. Special appreciation goes to the peer reviewers whose constructive insights strengthened this work.

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