"*Artificial Intelligence, Real-Life Consequences*" A quantitative study on the effects of AI literacy and AI self-efficacy on the work-life balance and job satisfaction of full-time employees

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Master's Thesis
June, 2025

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Abstract

With the increased growth of Artificial Intelligence (AI) in modern workplaces across various sectors, concerns about its psychological and organizational impacts have become more and more relevant. Whilst existing research often emphasizes the effectiveness and acceptance of AI technologies, there is limited empirical work exploring how AI-related competencies, such as AI literacy and AI self-efficacy, influence broader aspects of employee well-being. This thesis addresses this gap by examining the relationships between AI literacy, AI self-efficacy, work-life balance, and job satisfaction, with particular focus on the mediating roles of stress, perceived job security and AI transparency. An online survey was administered to gather data on these variables, resulting in 177 valid responses collected through personal distribution and survey distribution platforms such as Surveyswap and SurveyCircle. The data was analysed using IBM SPSS, applying multiple regression and mediation models to test hypothesized relationships. The results demonstrate the intricate and indirect pathways through which AI literacy influences employee outcomes. Although AI literacy and AI self-efficacy did not directly predict job satisfaction or work-life balance, several significant mediating relationships were identified. Stress and perceived job security emerged as key elements, mediating the relationship between AI literacy and both job satisfaction and work-life balance. AI transparency also played an important mediating role, though only in relation to job satisfaction. These results suggest that employees' perceptions of stress and perceived job security are critical in shaping how experiences with AI are shaped in the workplace. Notably, job satisfaction was found to negatively predict work-life balance, indicating that higher engagement or commitment to work may come at the expense of personal time. Altogether, these findings underscore the importance of organizational support structures that address stress, perceived job security, and communicate clearly about AI systems in order to foster mental well-being in an increasingly digital work environment.

Keywords: AI literacy, AI self-efficacy, Job satisfaction, Work-life balance, Perceived job security, Stress, AI transparency

Word count: 16122

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1 Introduction

The rise of Artificial Intelligence (AI) has become a double-edged sword by offering increased efficiency and productivity whilst threatening employee well-being (Tang et al., 2023, p.1767). The increasing integration of AI tools into work processes affects not only how individuals perform tasks, but also how they perceive their jobs, manage their stress, and maintain a healthy balance between professional and personal life. As organizations adapt to AI-driven changes, employees face both opportunities and challenges that demand closer academic and societal attention.

1.1 Artificial Intelligence

AI technologies such as machine learning, robotics, and natural language processing have been widely implemented to streamline operations, decrease costs, and increase productivity (Ali et al., 2024, p.1180; Kong et al., 2025, p.2; Chuang et al., 2025, p.1; Babina et al., 2024, p.1). These tools enable faster decision-making, automation of repetitive tasks, and greater efficiency in outcomes (Singla & Saxena, 2024, p.2; Kong et al., 2025, p.2; Babina et al., 2024, p.1). The advancement of these tools even means that in some instances tasks can be performed even when no clear instructions exist, purely based on previous data, for example in machine learning (Brynjolfsson & Raymond, 2023, p.1-2; Howard, 2019, p. 918). Whilst these developments offer potential benefits, such as improved accuracy, speed, and overall output (Singla & Saxena, 2024, p.2), they also raise concerns about perceived job security, stress, and work-life balance (Selenko et al., 2022, p.273; Furman & Seamans, 2019, p.162).

As the workplace becomes more and more digitized and location-independent (Glucksmann & Nolan, 2007), the boundaries between work and non-work domains begin to blur. This lack of divide challenges traditional views of work-life balance, which is understood in this study as the equilibrium between professional responsibilities and personal pursuits, encompassing workload, time allocation, and psychological well-being (Agarwal, 2024, p.144). The integration of AI often increases the accessibility and availability of work-related tasks, making it harder for individuals to disconnect (Singla & Saxena, 2024, p.2). Singla & Saxena (2024) note that AI has enabled flexible work arrangements, including remote work, yet this flexibility may contribute to stress by extending work responsibilities into personal spaces (p.2), leading to a clear duality of the effects of AI (Tang et al., 2023, p.1767). Moreover, Jin et al. (2024) found that heightened awareness of AI and its growing presence in the workplace correlates with increased distress and discomfort due to perceived resource loss (p.2).

Further complexities arise when AI tools lack social cues or feedback mechanisms, impairing employee well-being and increasing loneliness (Tang et al., 2023, p.1767). Studies also highlight

increased pressure to continually upskill, perform under surveillance, and manage expectations linked to AI tools, which collectively exacerbate job stress (Ali et al., 2024, p.1185). It is clear that the implementation of AI creates both a sense of urgency and also great concern by carrying the potential for diverse positive and negative effects on employees' work lives (Chuang et al., 2025, p.2).

1.2 Research Question and Academic Relevance

This research aims to investigate how employees' AI literacy and AI self-efficacy influence work-life balance and job satisfaction, including the mediating roles of stress, perceived job security, and AI transparency. The research question is:

"How do AI literacy and AI self-efficacy affect employees' job satisfaction and work-life balance, and to what extent are these relationships mediated by stress, perceived job security, and AI transparency?"

This research is grounded in well-established theoretical models. Guest (2002) outlines five models describing the interaction between work and non-work life: segmentation, spillover, compensation, instrumental, and conflict (p.258). Of particular relevance is the spillover model, which suggests that work experiences can spill over into one's personal life, either positively or negatively. This model underpins the concept that frequent AI interaction may increase stress or disrupt personal time due to the constant accessibility of work (Singla & Saxena, 2024, p.2; Bharadiya et al., 2023, p.87).

The investigation of AI self-efficacy, defined as an individual's belief in their ability to effectively use AI tools, complements this by examining whether confidence in using AI can mitigate stress or improve work outcomes. Moreover, whilst prior research has explored how AI affects employee well-being (Ali et al., 2024, p.1185) and job satisfaction (Bhargava et al., 2021, p.111; Ghosh & Sadeghian, 2024, p.3), there is a need to examine these dynamics together in a model that includes mediating variables like stress, perceived job security, and AI transparency.

Therefore, this research contributes to academic literature by integrating fragmented insights that address both direct and indirect relations through which the implementation of AI impacts employees.

1.3 Societal Relevance

Understanding how AI affects the workplace has significant implications for employees, organizations, and policymakers. The rise of AI technologies can simultaneously create opportunities for growth and innovation whilst posing risks of job displacement, psychological stress, and reduced job satisfaction (Ali et al., 2024, p.1184; Chuang et al., 2025, p.2).

Issues such as boreout, where individuals experience job dissatisfaction due to repetitive and unchallenging tasks, have been linked to AI-driven standardization in the workplace (Abubakar, 2019, p.68). The anxiety surrounding potential job replacement, particularly during the fourth industrial revolution, further underscores the importance of understanding employees' perceptions of AI (Rhee & Jin, 2021, p.2). Workers may experience emotional tension or decreased motivation when faced with the fear of being replaced by machines negatively influencing both work and life satisfaction (Rhee & Jin, 2021, p.2-3).

Additionally, AI-driven gigification of work, transforming stable jobs into short-term, task-based roles, has been linked to reduced job engagement and job satisfaction due to income uncertainty and marginalization (Braganza et al., 2020, p.1541). Given these far-reaching consequences, this research has the potential to inform workplace strategies of the effects of the integration of AI in the workplace.

As AI implementation expands, understanding how to enhance AI literacy and AI self-efficacy whilst managing stress, perceived job security concerns, and expectations around transparency becomes a societal imperative. By addressing these issues, this research can support the development of healthier, more resilient, and balanced workplaces in the digital era.

2 Literature review and theoretical framework

This section of the thesis will focus on exploring the various concepts that will be used in the conduction of this research. It will also develop an understanding of existing literature surrounding the multiple concepts and what that research can indicate for the development of this thesis.

2.1 AI Literacy

Even though not all employees and sectors will be replaced by AI, individuals with AI knowledge will replace those who do not (Ng et al., 2021, p.1). Therefore, AI literacy will become increasingly crucial to survive in the modern workforce. Literacy in the past captured the ability to read and write, in order to provide the capabilities for basic communication (Yi, 2021, p. 354). AI literacy has emerged as a form of visual, digital, and technological literacy as AI technology is intertwined into many aspects of life (Yi, 2021, p.354). AI literacy refers to a developing set of competencies that enable individuals to understand, evaluate, and engage with artificial intelligence technologies in both personal and professional settings. According to Ng et al. (2021), AI literacy can be understood in two key ways: first, as the knowledge of basic techniques and concepts underpinning AI within various products and services, and second, as a more subjective construct involving one's ability, confidence, and willingness to learn and interact with AI (Ng et al., 2021, p. 4). Ng et al. (2021) conceptualize AI literacy as an emerging form of essential digital competence, akin to traditional forms of literacy such as reading, writing, and numeracy (p.4). It is argued that as AI technologies increasingly saturate various sectors, therefore, AI literacy becomes a necessary skill set for individuals to thrive in an intelligence-driven digital era (Ng et al., 2021, p. 1–2). In this context, AI literacy is not solely a technical skill but a foundational capability for learning, participation, and productivity in environments where AI is implemented (Ng et al., 2021, p. 2). The roots of this concept can be traced back to the rise of computer applications in the 1970s, during which "digital literacy" emerged as a means to assess and cultivate the basic skills needed to navigate increasingly computerized work environments (Ng et al., 2021, p. 3). In a similar vein, AI literacy represents a new wave of digital competency, responding to the evolving demands of AI-integrated systems in the workplace. Ng et al. (2021) also apply Bloom's Taxonomy to AI literacy, illustrating how understanding AI involves progressing through increasingly complex levels of cognitive engagement (p.4). This model includes six levels of ordered thinking, where mastery of a simpler cognitive process is required before advancing to more complex forms of understanding, such as evaluating or creating AI-related solutions (Ng et al., 2021, p. 4).

Complementing this framework, Long and Magerko (2020) emphasize that AI is becoming ever more embedded in user-facing technologies, often in ways that are vague, mysterious, or misunderstood by users (Long & Magerko, 2020, p. 1). These misconceptions may hinder individuals' ability to use AI

effectively, collaborate with it meaningfully, or act as informed and critical consumers of AI technologies (Long & Magerko, 2020, p. 1). Furthermore, widespread misunderstanding can result in poorly informed public discourse and policy-making regarding AI systems (Long & Magerko, 2020, p. 1). Long and Magerko (2020) define AI literacy as a set of competencies that allow individuals to critically evaluate AI technologies, collaborate and communicate effectively with AI systems, and utilize these tools in various domains such as online environments, at home, and on the work floor (p. 2). They also highlight that a foundational level of digital literacy is a prerequisite for AI literacy, as a general understanding of computer use is essential for grasping how AI systems function and how to engage with them appropriately (Long & Magerko, 2020, p. 2).

These perspectives highlight that AI literacy encompasses both cognitive and practical dimensions, requiring not only technical understanding but also confidence, critical thinking, and willingness to engage with continuously evolving technologies. As AI continues to shape work, education, and daily life, these literacies will play a central role in determining who can effectively adapt and thrive in this new digital landscape.

2.2 AI Self Efficacy

Building on Bandura's (1997) concept of self-efficacy, which includes that the belief in one's ability to achieve desired outcomes and prevent undesired ones serves as a strong motivator for exercising personal control (p.2), AI self-efficacy applies these principles to technology-mediated work environments. AI self-efficacy refers to an individual's belief in their ability to effectively understand, interact with, and utilize artificial intelligence systems within the workplace. As AI technologies are increasingly implemented to enhance productivity and support complex decision-making processes, self-efficacy in engaging with AI has become a critical competency in modern work environments & Lee, 2025, p. 1806).

Kim and Lee (2025) argue that AI self-efficacy plays an essential role in shaping individuals' responses to job demands, particularly under conditions of stress and pressure (p.1806-1812). In high-demanding environments, individuals with higher AI self-efficacy are suggested to experience lower levels of stress, owing to their confidence in using AI to manage tasks more efficiently (Kim & Lee, 2025, p. 1806). This shape of self-efficacy does not solely reflect technical skill, but also an individual's broader views and positioning towards embracing AI in their workflow and adapting work habits accordingly (Kim & Lee, 2025, p. 1812).

AI self-efficacy consists of several interconnected capabilities. These include the ability to interpret and evaluate AI-generated outputs, understand the limitations of AI systems, and incorporate AI

results into human judgment processes (Kim & Lee, 2025, p. 1812). Moreover, it encompasses the confidence to restructure existing work routines, create new workflows that integrate AI capabilities, and maintain performance standards whilst embracing technological change (Kim & Lee, 2025, p. 1812). Notably, AI self-efficacy also includes the ability to maintain human agency in collaborative settings with AI, knowing when to rely on or override AI recommendations, and preserving a professional identity amongst these evolving human-AI interactions (Kim & Lee, 2025, p. 1812).

In their study, Kim and Lee (2025) also explore the relationship between AI self-efficacy and mental well-being through the lens of job stress, perfectionism, and anxiety. Job stress, defined as the negative physical and psychological responses when job demands exceed an individual's coping resources, is identified as a significant mediator in the dynamics of AI engagement (Kim & Lee, 2025, p. 1806). Their findings indicate that AI self-efficacy can moderate the impact of job demands by helping individuals cope with stress more effectively, ultimately improving job satisfaction (Kim & Lee, 2025, p. 1821).

Furthermore, Kim and Lee (2025) emphasize the interaction effect of AI self-efficacy, individuals who feel confident in their AI-related capabilities are not only better equipped to navigate stressful work environments but may also leverage AI to increase productivity, reduce workload pressure, and boost job satisfaction (p. 1821).

Despite these promising insights, the broader implications of AI implementation on employee experiences remain underexamined. As noted by Selenko et al. (2022), AI adoption is reshaping work through advancements in big data, computational power, and machine learning, including natural language processing and pattern recognition (p. 273). Whilst AI can support human work, it may also replace or alter existing job roles, which introduces psychological challenges related to job and personal identity, privacy, and autonomy (Selenko et al., 2022, p. 273-276).

The perceived threat of replacement or loss of control due to AI can erode workers' sense of self-continuity and satisfaction at work (Selenko et al., 2022, p. 276). In this context, AI self-efficacy may serve as a buffer, helping individuals to maintain a sense of agency and adapt proactively to technological change. As such, enhancing AI self-efficacy could be a crucial factor in improving both psychological well-being and workplace performance in an AI-integrated future.

2.3 Work-Life balance

The implementation of AI in the workplace has been rapidly advancing, yet its influence on individuals' work experiences, particularly in relation to work-life balance, remains underexplored (Selenko et al., 2022, p. 272). AI developments, driven by greater data access, enhanced computational power, and advanced modelling techniques such as machine learning, are reshaping work processes through automation, natural language processing, and pattern recognition (Selenko et al., 2022, p. 273). Whilst AI can support and complement human duties, it also raises concerns about privacy, job autonomy, and the opacity of AI decision-making, often described as a problem affecting transparency and accountability (Selenko et al., 2022, p. 273).

The dual nature of AI's impact on work manifests in both positive and negative ways. AI can increase efficiency, reduce monotonous tasks, and improve work quality, potentially creating opportunities for underrepresented groups and addressing labor shortages (Chuang et al., 2025, p. 1). Conversely, AI-induced technostress, arising from fears of job displacement and the constant pressure and need to adapt to new AI-driven roles, can decrease engagement, damage mental well-being, and increase turnover intentions (Chuang et al., 2025, p. 1–2). This creates a complex environment where AI both alleviates and magnifies work-related stressors, directly influencing work-life balance.

Work-life balance, the equilibrium between professional responsibilities and personal life, is crucial for employee well-being and job satisfaction (Aye et al., 2024, p. 2). However, constant connectivity and blurred boundaries between work and home, exacerbated by AI-enabled remote work, can lead to increased stress, burnout, and diminished quality of life (Aye et al., 2024, p. 2). Perceived stress, defined as the subjective feeling of being overwhelmed by life's demands, is a significant predictor of work-life imbalance (Aye et al., 2024, p. 1). Higher stress levels are associated with poorer management of work and personal demands, negatively affecting work-life balance and overall quality of life (Aye et al., 2024, p. 4).

Theoretical models, such as Guest's (2002) framework of work-life relations, provide valuable insights for understanding the interplay between technology and individual well-being. Among these, the spillover model is particularly connected to AI integration, as AI's capacity to enable constant connectivity can fade the boundaries between work and personal life, increasing the risk of stress spillover (Bharadiya et al., 2023, p. 87). Within this context, constructs such as AI literacy and AI self-efficacy become crucial. Higher AI literacy may motivate individuals to manage AI tools more effectively, reducing unintended work intrusions into personal time. Similarly, AI self-efficacy could

influence the impact of negative spillover by enhancing individuals' willingness to set boundaries and cope with demands across various domains.

Singla and Saxena (2024) explore AI's nuanced effects on work-life balance, noting that AI tools can increase efficiency and error-free outcomes but may also contribute to work-life imbalance by erasing boundaries through constant connectivity and remote work (p. 2). They highlight that flexible work arrangements and adequate training in AI skills can mitigate negative effects, reducing stress and fears of job loss (Singla & Saxena, 2024, p. 3).

Chuang et al. (2025) further elaborate on the interplay between AI, stress, and work-life balance. They find that AI-induced stress contributes to increased work-family conflict, a construct closely related to work-life balance, whilst effective AI adaptation may reduce stress and emotional exhaustion, potentially improving balance (Chuang et al., 2025, p. 8–9). Their findings suggest that AI efficacy positively impacts productivity and engagement, indirectly supporting job satisfaction, though stress remains a critical negative predictor through its link to exhaustion (Chuang et al., 2025, p. 9).

Overall, the current literature highlights that whilst AI can be a powerful tool to optimize work processes and potentially improve work-life balance, its implementation introduces significant psychological challenges related to stress, job autonomy, and boundary management. These factors underline the importance of considering individual capabilities, such as AI literacy and AI self-efficacy, in moderating the effects of AI on work-life balance.

Therefore, based on the reviewed literature and theoretical models, the following hypotheses are proposed:

H1: AI Literacy negatively predicts Work-Life Balance.
H2: AI Self-Efficacy positively predicts Work-Life Balance.

2.4 Job Satisfaction

The impact of AI implementation on individuals' work experience and job satisfaction remains underexplored, despite AI's growing integration into workplaces (Selenko et al., 2022, p. 272). Advances in AI stem from enhanced data access, computational power, and improved modeling, particularly through machine-learning techniques that imitate human cognition (Selenko et al., 2022, p. 273). AI technologies analyze large datasets through supervised and unsupervised learning, including natural

language processing and pattern recognition, influencing various aspects of work (Selenko et al., 2022, p. 273).

The adaptation of AI in the workplace carries significant implications for job autonomy, privacy, and decision-making transparency, as many do not understand what happens behind AI algorithms, raising concerns about accountability (Selenko et al., 2022, p. 273). AI can both complement human tasks and replace them, reshaping job roles across occupations. This dual nature influences employees' sense of perceived job security and job identity, which in turn affects job satisfaction (Selenko et al., 2022, p. 276).

Research highlights an intricate relationship between AI and job satisfaction. Hinks (2024) notes that jobs at high risk of automation correlate with lower job satisfaction, although perceptions of job worth may dampen this effect (p.4). Differences across countries suggest that cultural and economic contexts shape these outcomes (Hinks, 2024, p.4). Furthermore, negative perceptions of AI and job automation have been linked to lower life satisfaction, indicating broader psychosocial implications connected to work (Hinks, 2024, p. 4).

Chuang et al. (2025) provide a balanced perspective, recognizing AI's potential to enhance productivity, reduce monotonous tasks, and improve work quality, whilst also acknowledging concerns such as technostress and the need for adaptation to new AI-related roles (p.9). They suggest that AI efficacy can positively influence job satisfaction indirectly by increasing engagement, despite potential negative effects related to exhaustion (Chuang et al., 2025, p. 9). Similarly, Ghosh and Sadeghian (2024) find that human-AI collaboration can improve perceived job security, growth opportunities, and compensation, which positively impact job satisfaction, although experiential aspects might suffer (p.3).

However, the "job satisfaction dilemma" identified by Bhargava et al. (2021) reflects the tension between benefits such as automation assistance and concerns like job replacement, social disruption, and privacy risks, which can lower job satisfaction (p. 111-112). Standardization and reduced task variety, as discussed by Abubakar (2019), may lead to "boreout," characterized by job boredom and low engagement, negatively affecting job satisfaction (p. 70-74).

Anxiety about job replacement by AI also emerges as a significant factor. Rhee and Jin (2021) report that job anxiety stemming from fears of automation negatively impacts job satisfaction and motivation, highlighting job uncertainty as a key contributor to dissatisfaction (p. 5-6).

Braganza et al. (2020) explore the interplay between automation and gig work, finding that whilst gig work increases engagement and job satisfaction, system automation moderates this relationship

negatively by reducing job engagement and satisfaction, potentially due to precarious working conditions (p. 1541).

Overall, the literature reveals a complex picture; AI implementation can both enhance and undermine job satisfaction depending on factors like job type, perceptions of automation, and organizational support. This suggests that individual AI literacy and AI self-efficacy may play important roles in shaping how employees experience AI in the workplace. The following hypotheses are proposed:

H3: AI Literacy positively predicts Job Satisfaction.
H4: AI Self-Efficacy positively predicts Job Satisfaction.

2.5 Stress

Stress plays a critical mediating role in understanding the complex relationships between AI-related factors such as AI literacy and AI self-efficacy, and important workplace outcomes like work-life balance and job satisfaction. Kim and Lee (2025) highlight job stress, defined as the negative physical and psychological responses occurring when job demands exceed one's coping resources, as a powerful mediator in the dynamics between perfectionism, anxiety, and work outcomes (p. 1805-1821). This suggests that stress can similarly mediate relationships involving AI self-efficacy or AI literacy and other work-related variables.

AI self-efficacy, or the confidence to effectively understand, interpret, and utilize AI technologies at work, is increasingly relevant in today's AI-integrated environments (Kim & Lee, 2025, p.1806). Higher AI self-efficacy is associated with more effective coping mechanisms under job demands and lower stress levels, which can translate to improved job satisfaction and well-being (Kim & Lee, 2025, p.1821). However, as individuals navigate the complexities of AI implementation, such as adapting workflows, evaluating AI recommendations, and maintaining human agency in AI collaboration, stress responses may arise when these demands exceed coping capacities.

Existing literature underscores the impact of stress on workplace outcomes. Fevre et al. (2003) define occupational stress as deformation or changes caused by external forces, which when unmanaged, threaten both employee health and organizational performance (p. 726-728).

Wu et al. (2021) further demonstrate that job stress negatively influences job satisfaction, often resulting in burnout and adverse attitudes toward work (p. 204-207). Similarly, Aye et al. (2024) identify

perceived stress as a significant predictor of substandard work-life balance, where increased stress correlates with reduced ability to manage work and personal life demands effectively (p. 1-4).

The dual effects of AI integration further complicate this picture. Chuang et al. (2025) explore AI-induced technostress, stemming from fears of job displacement and the need to always upskill, as a factor that heightens work-family conflict and reduces work-life balance (p. 1-9). However, when AI efficacy is high, employees may experience increased productivity and engagement, suggesting that AI self-efficacy may cushion the negative impact of stress on job satisfaction (Chuang et al., 2025, p.9).

Moreover, Jin et al. (2024) note that awareness of AI and its integration tends to increase job-related stress, which then threatens psychological well-being and can lead to long-term burnout (p. 2-7). Tang et al. (2023) add a social dimension, suggesting that AI interaction affects employees' social needs and loneliness, which can also manifest as stress influencing both work and non-work behaviours (p. 1766-1772). Ali et al. (2024) emphasize the increased job insecurity and performance pressures induced by AI-driven workplace changes, directly linking these factors to elevated stress and burnout risks (p. 1180-1185).

These studies illustrate stress not solely as an outcome but as a mediating mechanism that explains how AI literacy and self-efficacy influence broader workplace phenomena like work-life balance and job satisfaction. Stress emerges as a critical process through which the challenges and benefits of AI integration affect employee well-being. The following hypotheses are therefore proposed:

H5: Stress mediates the relationship between AI Literacy and Work-Life Balance.
H6: Stress mediates the relationship between AI Literacy and Job Satisfaction.

2.6 Perceived Job Security

Concerns over possible technological unemployment is not a new concept (Frey & Osborne, p.255). Therefore, perceived job security plays a crucial mediating role in understanding the impact of AI adoption on employee attitudes and behaviours within the workplace. Kong et al. (2025) examine how awareness of AI technologies correlates with employees' perceptions of job insecurity and their levels of work engagement (p.1). Whilst the implementation of new technologies, robots, and AI offers notable advantages such as cost reduction, enhanced customer satisfaction, and the ability to undertake repetitive or hazardous tasks, thereby reducing physical and psychological injuries among human workers, there are also significant concerns regarding privacy, data security, and ethical challenges that arise with this technological advancement (Kong et al., 2025, p.2).

A central societal challenge identified by Kong et al. (2025) is the threat of job loss due to AI, which requires careful consideration of the broader implications of AI and robotic integration in workplaces (p.2). Perceived job security is defined as an individual's perception of uncertainty about their job stability, encompassing fears of potential job loss and doubts about future career advancement opportunities (Kong et al., 2025, p.6). This perception is often highlighted during organizational changes driven by external pressures, such as the introduction of AI, which can foster feelings of insecurity when AI's capabilities are directly compared to human labor (Kong et al., 2025, p.6). Additionally, amplified competition for performance-based pay and promotional opportunities can intensify these insecurities (Kong et al., 2025, p.6).

Kong et al. (2025) validate the hypothesis that perceived job insecurity mediates the relationship between AI awareness and work engagement, finding that increased perceived job insecurity due to AI integration shrinks employees' capacity and willingness to fully engage with their work (p.10, 12-13). This highlights that perceptions of job insecurity are a key psychological mechanism through which AI influences employee attitudes and behaviours, particularly engagement.

Consequently, perceived job security emerges as a significant mediator in the discourse on AI implementation in the workplace. Understanding its role helps illuminate how AI-related changes affect employees not only in terms of job performance but also through shaping their emotional and cognitive responses to evolving work environments. This mediating effect aligns with findings by Kim and Lee (2025), who emphasize the mediating role of job stress in linking psychological factors such as perfectionism and anxiety with workplace outcomes (p.1806, p.1821), suggesting that perceived job security could mediate other relationships related to AI integration in organizational settings. Therefore, the following hypotheses are proposed:

H7: Perceived Job Security mediates the relationship between AI Literacy and Work-Life Balance.

H8: Perceived Job Security mediates the relationship between AI Literacy and Job Satisfaction.

2.7 AI Transparency

As AI technologies become increasingly embedded in workplace processes, the concept of AI transparency has emerged as a critical factor influencing employees' acceptance and trust in these systems. Kong et al. (2025) highlight the multifaceted impact of AI on employees' mental and physical work states, emphasizing concerns related to privacy, data security, and ethical issues alongside potential benefits (p. 1-2). These concerns are further compounded by the often opaque nature of AI systems,

which can function as “black boxes,” limiting users’ understanding of how decisions are made and raising questions about accountability (Selenko et al., 2022, p. 273).

In their article on trust in AI systems, Sullivan et al. (2020) highlight the importance of transparency and the feeling of security when interacting with AI (p.543). It is highlighted that the different forms of thinking AI systems have should be addressed and explained in order to reduce any certain negative associations with AI and its implications (Sullivan et al., 2020, p.543). AI transparency can be a grave solution to reduce insecurity towards AI as individuals need to know how AI systems arrive at their recommendations and conclusions (Sullivan et al., 2020, p.543).

Selenko et al. (2022) further argue that AI adaptation is fundamentally reshaping the nature of work through advancements in big data, computational power, and machine learning, including technologies such as natural language processing and pattern recognition (p. 273). Whilst AI offers opportunities to support human work, it may also displace or radically transform existing roles, leading to psychological challenges tied to identity, privacy, and autonomy (Selenko et al., 2022, p. 273-276). In particular, the somewhat for many users, the mysterious nature of AI computations complicates accountability and transparency, which can undermine employees’ trust in AI-driven decisions and disrupt their sense of job control.

This growing complexity and lack of clarity challenge traditional notions of autonomy and informed decision-making in the workplace (Selenko et al., 2022, p. 272-273). When employees are unable to understand how AI systems function or how decisions are reached, it may provoke feelings of uncertainty, anxiety, or mistrust, especially when these systems start to influence performance evaluations, task assignments, or hiring decisions.

In response to these concerns, Wang et al. (2019) emphasize that AI transparency is essential for creating a user-centric approach to AI system design. Transparency entails providing users with accessible information about the AI system’s current state, decision logic, and operational boundaries (p. 4). This enables employees to request explanations when AI behaves unexpectedly or makes impactful decisions, therefore reducing confusion and enhancing perceived fairness (Wang et al., 2019, p. 4). Moreover, transparency enhances algorithmic accountability by allowing users to identify biases or mistakes, ultimately contributing to more ethical and understandable AI implementation in organizational settings (Wang et al., 2019, p. 12).

By improving employees' understanding of how AI systems operate, transparency serves to adjust trust appropriately and support informed collaboration between humans and machines. This is particularly relevant in contexts where AI affects complex decision-making, as transparency can foster both confidence and engagement among workers. As such, AI transparency plays a crucial role in balancing the technological benefits of AI with the psychological and organizational needs for human agency, trust, and accountability. Therefore, the following hypotheses are proposed:

H9: AI Transparency mediates the relationship between AI Literacy and Work-Life Balance.
H10: AI Transparency mediates the relationship between AI Literacy and Job Satisfaction.

2.8 Job Satisfaction and Work-Life Balance

Whilst job satisfaction is typically associated with positive work outcomes, it may also have complex effects on employees' personal lives. High job satisfaction often corresponds with greater engagement and commitment to work, which can lead employees to invest additional time and effort beyond formal working hours (Kong et al., 2025, p. 12-13; Kim & Lee, 2025, p. 1821). This increased involvement can unintentionally disrupt employees' work-life balance by blurring the boundaries between professional responsibilities and personal time (Selenko et al., 2022, p. 276).

Such overcommitment may result in elevated stress levels and difficulty managing non-work roles, despite employees feeling satisfied and fulfilled in their jobs. The interplay between job satisfaction and work-life balance, especially in the context of AI-driven work environments, remains underexplored but is crucial for understanding how to support employee well-being holistically (Kong et al., 2025, p. 12-13; Kim & Lee, 2025, p. 1806). Exploring this relationship can reveal important insights into how work attitudes translate into life outcomes and inform organizational practices aimed at sustainable employee health.

Therefore, examining whether job satisfaction negatively predicts work-life balance could offer a valuable understanding of the underlying dynamics between these key aspects of employee experience. Therefore, the following hypothesis is proposed:

H11: Job Satisfaction negatively predicts Work-Life Balance.

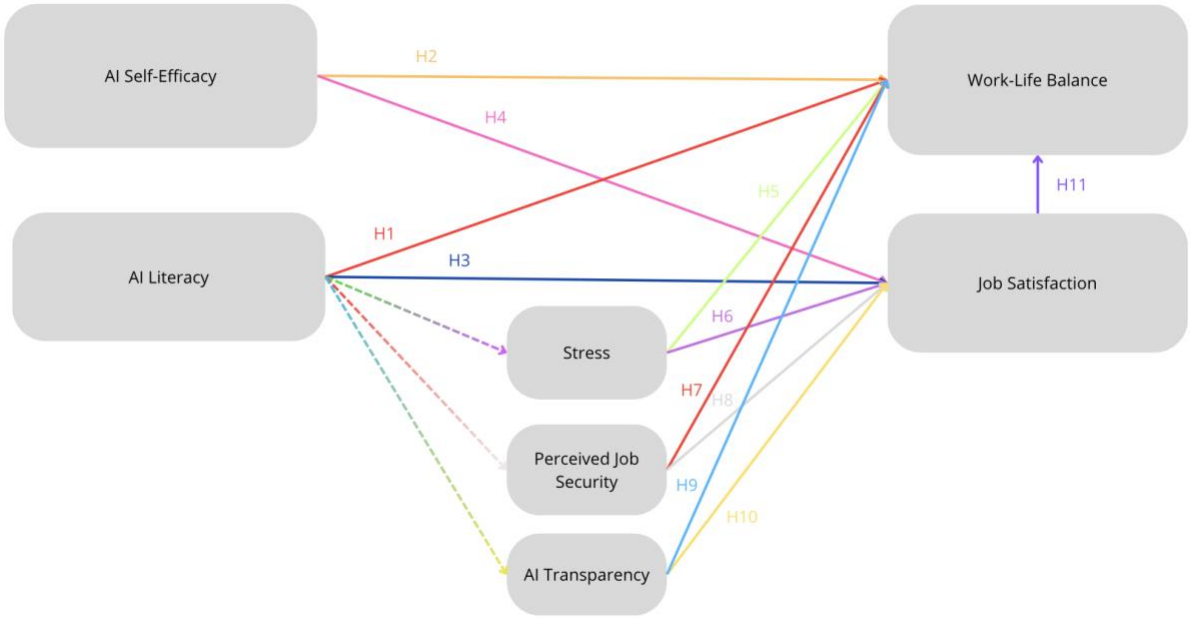

Figure 1. Research Model

3 Methods

This section of the thesis focuses on outlining the research approach employed to address the research question. It begins with an introduction and justification for the use of a quantitative research method, followed by a detailed description of the sampling strategy, data collection procedures, and analysis methods. Additionally, this section will present the measurement instruments utilized throughout the study.

3.1 Research Design

To address the research question, a quantitative online survey was developed and distributed to measure full-time employees' perceptions of AI's impact on their work-life balance. This approach was selected due to its ability to efficiently gather standardized data from a large sample, facilitating statistical analysis and generalizability of findings (Matthews and Ross, 2010, p.200-217). The survey design enables the measurement of multiple variables and their relationships, which aligns with the study's objective to quantify perceptions rather than explore in-depth individual experiences.

The constructs measured in the survey are grounded in the study's theoretical framework. AI literacy and AI self-efficacy serve as independent variables that represent individual capabilities in implementing and encountering AI. Work-life balance and job satisfaction function as dependent variables that reflect the personal and professional outcomes of AI integration. Stress, perceived job security, and AI transparency are included as mediating variables to capture contextual factors that may influence these relationships. This conceptual alignment ensures that the data collected supports the investigation of the proposed framework.

The online distribution of the survey allows access to a broad and diverse participant pool in a timely manner, whilst also enabling mandatory response fields to improve data completeness and quality whilst the elimination of the presence of the researcher also reduces potential bias or influence on participant responses (Evans & Mathur, 2018, p. 856). The survey was circulated through professional networks, social media groups, and direct email invitations, complemented by snowball sampling to expand reach. Snowball sampling is a method in which initial participants are requested to recruit others from their personal networks who also meet the study's criteria. This sampling technique is valuable for efficiently reaching hard-to-access populations and increasing response rates whilst minimizing time and resource demands (Ting et al., 2025, p. 2).

3.2 Sampling

3.2.1 Target Population

The target population consists of full-time employees who actively utilize AI technologies in their workplace. The sample includes individuals from various industries, job roles, and experience levels to ensure broad and comprehensive representation. Participants from all adult age groups were eligible, acknowledging that AI usage occurs across multiple sectors and career stages. No specific geographic restrictions were applied to the sample selection.

3.2.2 Sampling Procedure

The survey was distributed through multiple channels to maximize diversity and reduce sampling bias. These included professional networking sites such as LinkedIn and relevant online communities. Snowball sampling was encouraged by requesting participants to share the survey link (Tang et al., 2025, p.2) with colleagues and within professional circles. Participation was limited to individuals aged 18 and above to ensure ethical compliance and relevance to the working population.

This sampling strategy is classified as non-probability convenience sampling, as participant selection was based on accessibility and willingness to respond rather than randomized selection (Fricker, 2017, p.66). Whilst this approach facilitated broad outreach and minimized over-reliance on the researcher's personal network, it inherently carries the risk of sampling bias, which may limit the generalizability of the findings. Additionally, the use of self-reported data introduces potential threats to validity, such as self-report bias due to being selective in what data to share (Brutus et al., 2013, p.51) and common method variance. These risks were mitigated through the use of anonymous responses, carefully worded neutral questions, and varied item formats to reduce response patterns.

3.2.3 Research Procedure

Prior to participation, individuals were provided with information outlining the study's purpose, confidentiality assurances, and the voluntary nature of involvement, including the right to withdraw at any point without consequence. Informed consent was obtained electronically before commencing the survey.

Screening questions confirmed eligibility based on full-time employment and active use of AI in the workplace. The survey included sections measuring AI literacy, AI self-efficacy, work-life balance, job satisfaction, stress, AI Transparency, and Perceived Job Security followed by demographic questions and the ability to leave comments. All questions were mandatory to ensure complete datasets. Data collection took place over a predetermined period of a month, after which responses were securely exported for analysis.

3.2.4 Sampling Results

The sample consisted of 177 participants. The mean age was 31.63 years (SD = 12.01), with ages ranging from 18 to 84 years. Gender distribution was relatively balanced, with 46.9% identifying as male, 52.5% as female, and 0.6% as non-binary or third gender. Regarding education, the majority held a bachelor's degree (39.0%) or a master's degree (49.7%). Participants represented diverse nationalities, with 50.3% from the Netherlands and smaller percentages from various other countries. Ethnically, the sample was predominantly White-European (53.7%), followed by White (16.9%) and various Asian subgroups.

3.3 Validity and Reliability

To ensure the validity of this research, established and previously validated scales were employed. These scales have been widely used in prior studies, as discussed in the theoretical framework earlier in this thesis. Whilst some complexity exists within these measures, their combined use across various research fields effectively captures the relationships under investigation. Utilizing pre-existing, tested scales guarantees that the data collected are valid and appropriate for this study's context. The multidimensional nature of the research is supported by prior literature, further reinforcing its validity.

Notably, the selected scales have demonstrated Cronbach's alpha values of 0.7 or higher in the original studies where they were developed, indicating strong internal consistency. To maintain reliability, the complete research process is transparently outlined in the methods section, enabling replication by other researchers who may achieve comparable results.

The use of a non-probability convenience sampling method via online survey platforms minimizes potential researcher bias and enhances response rates. Additionally, the dimensions within the scales have been pre-tested and validated by their original developers, providing further assurance of their reliability. No new multidimensional scales were created for this study; all were adapted from existing validated instruments, with minor wording adjustments made to better align with the AI-focused context of this research.

3.4 Measures

AI Literacy

To measure AI literacy, the Meta AI Literacy Scale developed by Carolus et al. (2023, p. 9) was adopted. This scale comprises 22 items rated on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). The instrument is designed to assess individuals' ability to understand, analyse, detect,

and actively create AI, whilst also incorporating elements of AI ethics. To explore the underlying structure of the scale and evaluate its reliability within the current study, A Principal Component Analysis (PCA) was conducted on the AI Literacy Scale with a sample size of n = 177 using Direct Oblimin rotation and eigenvalues greater than 1.00 as the extraction criterion. Sampling adequacy was confirmed by a Kaiser-Meyer-Olkin (KMO) value of 0.91, which exceeds the minimum threshold of 0.60 (Kaiser, 1970), and Bartlett's Test of Sphericity was significant, $\chi^2(231) = 3450.02$, $p < .001$, indicating the data's suitability for factor analysis (Bartlett, 1954).

The PCA yielded four distinct factors accounting for 74.39 percent of the total variance in AI literacy. The first factor, labelled AI Knowledge, explained 41.20 percent of the variance and showed excellent internal consistency (Cronbach's $\alpha = 0.91$). The second factor, AI Skills and Use, accounted for 16.04 percent of the variance, and had a Cronbach's alpha of 0.96, which increased to 0.97 after the removal of the item "*I can select useful tools (e.g., frameworks, programming languages) to program an AI*" that reduced internal consistency. The third factor, Ethical Awareness, explained 11.65 percent of the variance with an alpha of 0.95, and the fourth factor, Data Interpretation, contributed 5.50 percent of the variance and had a reliability coefficient of 0.86.

The factor structure supports the multidimensional nature of AI literacy as conceptualized by Carolus et al. (2023), encompassing both technical and ethical dimensions. The overall findings suggest that the Meta AI Literacy Scale is a valid and reliable instrument for assessing AI literacy in a diverse sample.

Table 3.4.1. Factor loadings, explained variance and reliability of the four factors found for the scale 'AI Literacy'.

Item	AI Knowledge	AI Skills and Use	Ethical Awareness	Data Interpretation
I know definitions of artificial intelligence	0.94			
I know the most important concepts of the topic Artificial Intelligence	0.81			
I can imagine possible future uses of AI	0.76			
I can think of new uses for AI	0.75			
I can assess what advantages and disadvantages the use of an artificial intelligence entails	0.71			
I can assess what the limitations and opportunities of using an AI are	0.63			

Item	AI Knowledge	AI Skills and Use	Ethical Awareness	Data Interpretation
I can tell if I am dealing with an application based on artificial intelligence	0.61			
I can distinguish devices that use AI from devices that do not	0.57			
I can distinguish if I interact with an AI or a real human	0.54			
I can program new applications in the field of artificial intelligence		0.97		
I can develop new AI applications		0.96		
I can design new AI applications		0.92		
(I can select useful tools in the field of artificial intelligence and use them appropriately) Removed Item		(0.89)		
I can use AI applications to make my everyday life easier			0.94	
I can use artificial intelligence meaningfully to achieve my everyday goals			0.91	
In everyday life, I can interact with AI in a way that makes my tasks easier			0.91	
In everyday life, I can work together with artificial intelligence			0.88	
I can communicate gainfully with artificial intelligence			0.86	
I can operate AI applications in everyday life			0.83	
I can weigh the consequences of using AI for society				0.86
I can incorporate ethical considerations when deciding whether to use data provided by an AI				0.86
I can analyze AI-based applications for their ethical implications				0.80
R^2	0.41	0.16	0.12	0.06
Cronbach's α	0.91	0.97	0.95	0.86

AI Self Efficacy

To assess AI self-efficacy, the 6-item AI Self-Efficacy Scale developed by Carolus et al. (2023, p. 9) was used. This instrument captures individuals' perceived ability to navigate and effectively use AI technologies. Rated on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree), the scale evaluates both confidence in staying updated with AI developments and competence in independently

solving AI-related challenges. It forms part of the broader AI Literacy framework, which includes knowledge, understanding, ethics, and creation.

To validate the structure of the AI Self-Efficacy Scale in this study, The PCA for the AI Self-Efficacy Scale was performed with n = 177 participants, applying Direct Oblimin rotation to validate the factor structure. The Kaiser-Meyer-Olkin (KMO) measure was 0.86, indicating meritorious sampling adequacy (Kaiser, 1970). Bartlett's Test of Sphericity was significant, $\chi^2(15) = 846.45$, $p < .001$, confirming that the inter-item correlations were sufficient for factor analysis (Bartlett, 1954).

The PCA identified a single dominant factor based on eigenvalues greater than 1.00, which explained 70.10 percent of the total variance. All six items loaded strongly onto this factor, with loadings ranging from 0.77 to 0.90, supporting a unidimensional construct of AI self-efficacy that reflects individuals' general confidence in their ability to understand and interact with AI.

The scale demonstrated excellent internal consistency, with a Cronbach's alpha of 0.91, exceeding the standard threshold of 0.70 (Pallant, 2020). Item-total correlations ranged from 0.67 to 0.84, and no item removal improved the overall reliability, confirming the robustness and reliability of the scale for use in AI-related research.

Table 3.4.2: Factor loadings, explained variance and reliability of the one factor found for the scale 'AI Self-Efficacy '.

Item	Self-Efficacy
Despite the rapid changes in the field of artificial intelligence, I can always keep up to date	0.90
I can keep up with the latest innovations in AI applications	0.89
Although there are often new AI applications, I manage to always be up to date	0.87
I can handle most problems in dealing with artificial intelligence well on my own	0.80
I can also usually solve strenuous and complicated tasks when working with artificial intelligence well	0.80
I can rely on my skills in difficult situations when using AI	0.77
R^2	0.70
Cronbach's α	0.91

Work-Life Balance

Work-Life Balance was measured using the Work-Life Balance Scale developed by Hayman (2005, p. 85), an adaptation of the original instrument by Fisher-McAuley et al. (2003). The scale comprises 15 items designed to measure three distinct subconstructs: Work Interference with Personal Life (WIPL), Personal Life Interference with Work (PLIW), and Work Personal Life Enhancement (WPLE). Respondents rated each item on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) (Hayman, 2005, p. 86). This scale facilitates the examination of employee perceptions concerning the balance between work and personal life and its implications for job satisfaction, stress, and turnover intentions.

To ensure consistency in the interpretation of higher scores indicating more positive work-life balance, several negatively phrased items in the work-life balance scale were reverse-coded. Specifically, the following items were reverse-coded: "*My personal life suffers because of work*," "*My job makes personal life difficult*," "*I neglect personal needs because of work*," "*I put personal life on hold for work*," "*I miss personal activities because of work*," "*I struggle to juggle work and non-work*," "*My personal life drains me of energy for work*," "*I am too tired to be effective at work*," "*My work suffers because of my personal life*," and "*I found it hard to work because of personal matters*." These items were reverse-coded so that higher values consistently reflected better work-life balance.

For the Work-Life Balance Scale, PCA was conducted on data from n = 177 respondents, using Direct Oblimin rotation and eigenvalues greater than 1. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.87, indicating good suitability for factor analysis, and Bartlett's Test of Sphericity was significant, $\chi^2(105) = 1993.23$, $p < .001$, confirming the presence of sufficient correlations among items (Kaiser, 1970; Bartlett, 1954). The PCA identified a three-factor solution that accounted for 71.59 percent of the total variance in work-life balance.

The first factor, Work Interference with Personal Life (WIPL), explained 44.70 percent of the variance and demonstrated excellent internal consistency with a Cronbach's alpha of 0.95. The second factor, Personal Life Interference with Work (PLIW), accounted for 16.57 percent of the variance and showed acceptable internal reliability with a Cronbach's alpha of 0.79. This value increased to 0.83 after the removal of the item "*I am happy with the amount of time I have for non-work activities*", which had a low loading and negatively affected reliability. The third factor, Work Personal Life Enhancement (WPLE), contributed 10.32 percent of the total variance and had a Cronbach's alpha of 0.88. This

improved slightly to 0.88 after excluding the item "*My personal life drains me of energy for work*." The final structure and corresponding statistics are presented in Table 3.4.3.

Table 3.4.3 Factor loadings, explained variance and reliability of the three factors found for the scale 'Work-Life Balance'.

Item	Work Interference with Personal Life	Personal Life Interference with Work	Work Personal Life Enhancement
I put personal life on hold for work	0.89		
My personal life suffers because of work	0.89		
My job makes personal life difficult	0.88		
I neglect personal needs because of work	0.88		
I miss personal activities because of work	0.85		
I struggle to juggle work and non-work	0.84		
I have a better mood at work because of personal life			0.84
My personal life gives me energy for my job			0.83
My job gives me energy to pursue personal activities			0.82
I have a better mood because of my job			0.74
(I am happy with the amount of time for non-work activities) Removed item	(0.35)		
My work suffers because of my personal life		0.87	

Item	Work Interference with Personal Life	Personal Life Interference with Work	Work Personal Life Enhancement
I found it hard to work because of personal matters		0.78	
(My personal life drains me of energy for work) Removed item		(0.78)	
I am too tired to be effective at work		0.72	
R^2	0.45	0.17	0.10
Cronbach's α	0.95	0.79	0.88

Job Satisfaction

Job satisfaction was assessed using the Job Satisfaction Survey (JSS) developed by Macdonald and MacIntyre (1997, p. 16). This 10-item scale evaluates general job satisfaction using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The JSS is designed to be occupation-independent, aiming to measure overall satisfaction with one's job rather than focusing on specific job characteristics or individual traits (Macdonald & MacIntyre, 1997, p. 14).

To examine the structure of the scale, a Principal Component Analysis (PCA), with a sample size of n = 177, was conducted using eigenvalues greater than 1 as the extraction criterion. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.91, indicating excellent suitability for factor analysis (Kaiser, 1970). Bartlett's Test of Sphericity was also significant, $\chi^2(45) = 733.15$, $p < .001$, supporting the appropriateness of the data for factor analysis (Bartlett, 1954).

The PCA revealed a one-factor solution accounting for 49.14% of the total variance ($R^2 = 0.49$), suggesting a unidimensional construct of overall job satisfaction. Internal consistency was strong, with a Cronbach's alpha of 0.93. The item "*I believe management is concerned about me"* was removed to slightly improve internal consistency, though Cronbach's alpha remained at 0.93. Table 3.4.4 presents the factor loadings and reliability statistics.

Table 3.4.4. Factor loadings, explained variance, and reliability of the one factor found for the scale 'Job Satisfaction'.

Item	Job Satisfaction
I feel good about my job	0.85
I feel good about working at this company	0.84
I feel secure about my job	0.76
All my talents and skills are used at work	0.71
I get along with my supervisors	0.67
I receive recognition for a job well done	0.67
I feel close to the people at work	0.66
My wages are good	0.65
On the whole, I believe work is good for my physical health	0.61
(I believe management is concerned about me) Removed item	(0.54)
R^2	0.49
Cronbach's α	0.93

Stress

Stress was assessed using the Perceived Stress Scale (PSS), a 14-item instrument developed by Cohen et al. (1983, p. 394–395). This scale measures perceived stress levels through items rated on a 5-point Likert scale (1 = never to 5 = very often) and is widely used to evaluate how individuals appraise stress in their lives (Cohen et al., 1983, p. 394).

The stress scale was adapted from the Perceived Stress Scale and included a mix of positively and negatively phrased items. To ensure that higher scores reflected greater levels of stress, the positively phrased items were reverse-coded. Specifically, the following items were reverse-coded: "*In the last month, how often have you dealt successfully with irritating life hassles?*", "*In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?*", "*In the last month, how often have you felt confident about your ability to handle your personal problems*?", "*In the last month, how often have you felt things were going your way?",* "*In the last month, how often have you been able to control irritations in your life*?", "*In the last month, how often have you felt that you were on top of things*?", and "*In the last month, how often have you been able to control the way you spend your time*?". The remaining items were negatively framed and thus not reverse-coded.

To examine the factor structure of the scale in this study, a Principal Component Analysis (PCA) with Direct Oblimin rotation was performed, involving n = 177 participants, applying eigenvalues greater than 1 as the extraction criterion. The Kaiser-Meyer-Olkin measure indicated good sampling adequacy

with a value of 0.88, and Bartlett's Test of Sphericity was significant, $\chi^2(91) = 1165.77$, $p < .001$, confirming the data's suitability for factor analysis (Kaiser, 1970; Bartlett, 1954).

The PCA revealed a two-factor solution that explained 58.20% of the total variance. The first factor, labeled Work-Related Stress, accounted for 31.93% of the variance and demonstrated strong internal consistency with a Cronbach's alpha of 0.88, which improved to 0.90 after removing the item "*In the last month, how often have you found yourself thinking about things that you have to accomplish*?" The second factor, labeled Affect Job Stress, explained 26.27% of the variance and had a Cronbach's alpha of 0.85, increasing to 0.86 after excluding the item "*In the last month, how often have you dealt successfully with irritating life hassles*?" Factor loadings and reliability coefficients for both factors are presented in Table 3.4.5.

Table 3.4.5. Factor loadings, explained variance and reliability of the two factors found for the scale 'Stress'.

Item	Work-Related Stress	Affect Job Stress
In the last month, how often have you felt nervous and "stressed"?	0.89	
In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0.83	
In the last month, how often have you been angered because of things that happened outside of your control?	0.82	
In the last month, how often have you felt that you were unable to control the important things in your life?	0.79	
In the last month, how often have you been upset because of something that happened unexpectedly?	0.79	
In the last month, how often have you found that you could not cope with all the things that you had to do?	0.68	
(In the last month, how often have you found yourself thinking about things that you have to accomplish?) Removed Item	(0.54)	(-0.32)
In the last month, how often have you felt that things were going your way?		0.83
In the last month, how often have you felt confident about your ability to handle your personal problems?		0.78

Item	Work-Related Stress	Affect Job Stress
In the last month, how often have you felt that you were on top of things?		0.78
In the last month, how often have you been able to control the way you spend your time?		0.77
In the last month, how often have you been able to control irritations in your life?		0.70
In the last month, how often have you felt that you were effectively coping with important changes occurring in your life?		0.68
(In the last month, how often have you dealt successfully with irritating life hassles?) Removed Item		(0.52)
R^2	0.32	0.26
Cronbach's α	0.90	0.86

AI Transparency

AI transparency was measured using a 7-item scale adapted from Langer et al. (2023, p. 499), designed to assess perceptions of AI systems regarding the transparency they inspire. Items were rated on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). This scale helps to understand how transparent design and user trust affect individuals' perceptions and interactions with AI technologies (Langer et al., 2023, p. 506).

A Principal Component Analysis (PCA) with direct oblimin rotation was conducted on data from n = 177 individuals using eigenvalues greater than 1 as the extraction criterion. The Kaiser-Meyer-Olkin measure of sampling adequacy was .88, indicating strong factorability of the correlation matrix (Kaiser, 1970). Bartlett's Test of Sphericity was significant, $\chi^2(21) = 792.64$, $p < .001$, confirming the data's suitability for factor analysis (Bartlett, 1954). The PCA revealed a single-factor solution explaining 64.27% of the variance ($R^2 = .64$). Factor loadings ranged from .61 to .90, demonstrating strong item associations with the transparency construct.

The factor demonstrated excellent internal consistency, with a Cronbach's alpha of .90, which improved slightly to .91 after the removal of the item "*I am familiar with AI*," indicating that the scale reliably measures AI transparency. Factor loadings and Cronbach's alphas are presented in Table 3.4 6.

Table 3.4.6: Factor loadings, explained variance and reliability of the factor found for the scale 'AI Transparency'.

Item	AI Transparency
AI is reliable	0.90
I can trust AI	0.87
AI is dependable	0.85
AI provides security	0.81
AI has integrity	0.78
I am confident in AI	0.75
(I am familiar with AI) Item removed	(0.61)
R^2	0.64
Cronbach's α	0.91

Perceived Job Security

Perceived job security was measured using the Job Insecurity Scale adapted by Vander Elst (De Witte, 2000; Vander Elst, 2014, p. 369). This four-item scale employs a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) to capture individuals' subjective perceptions regarding the stability and continuity of their employment (Vander Elst, 2014, p. 369).

To ensure that higher scores indicated more favorable perceptions of perceived job security, reverse coding was applied to negatively worded items in the job security scale. The following items were reverse-coded: "*Chances are, I will soon lose my job*," "*I feel insecure about the future of my job*," and "*I think I might lose my job in the near future*." These items reflected job insecurity and were reversed so that higher scores would indicate stronger perceived job security. The item "*I am sure I can keep my job*" was positively framed and therefore not reverse-coded.

To investigate the underlying factor structure of the scale, a Principal Component Analysis (PCA), on data from n = 177 individuals, with direct oblimin rotation was performed, using eigenvalues greater than 1 as the extraction criterion. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.80, indicating acceptable suitability for factor analysis (Kaiser, 1970). Bartlett's Test of Sphericity

was significant, $\chi^2(6) = 351.82$, $p < .001$, confirming that the item correlations were sufficient for PCA (Bartlett, 1954).

The PCA revealed a one-factor solution accounting for 71.09% of the total variance ($R^2 = 0.71$), supporting the one-dimensionality of the construct. Internal consistency was good, with a Cronbach's alpha of 0.86. Removing the item "*I feel insecure about the future of my job*" resulted in a marginal increase in reliability, raising Cronbach's alpha to 0.87. The factor loadings and reliability statistics are presented in Table 3.4.7.

Table 3.4.7: Factor loadings, explained variance and reliability of the one factor found for the scale 'Perceived Job Security'.

Item	Perceived Job Security
I think I might lose my job in the near future	0.91
Chances are, I will soon lose my job	0.87
I am sure I can keep my job	0.83
(I feel insecure about the future of my job) Removed Item	(0.75)
R^2	0.71
Cronbach's α	0.87

3.5 Analysis Methods

To evaluate the proposed hypotheses, a combination of multiple regression and mediation analyses was employed. Hypotheses H1 through H4 were tested using multiple regression analyses, as these involved examining the influence of one or more continuous independent variables on a continuous dependent variable. This method is appropriate for identifying the individual and collective effects of predictors, particularly when the variables may be conceptually related or statistically interdependent (Pallant, 2020, p. 153). Conducting these analyses within a single model framework provides clearer insights into the relative contribution of each predictor while controlling for shared variance.

Hypotheses H5 through H10 were tested using mediation analysis. Mediation analysis investigates whether the relationship between an independent variable and a dependent variable is explained by a third variable, referred to as the mediator. This approach helps uncover the underlying mechanisms through which the independent variable exerts its effect on the outcome. The mediation

models were examined using the PROCESS macro for SPSS, developed by Andrew F. Hayes (2012). This tool estimates both direct and indirect effects and generates confidence intervals based on bias-corrected bootstrapping procedures, providing a robust method for assessing mediation effects. Lastly, H11 was tested using a simple linear regression to explore the direct relationship between job satisfaction and work-life balance.

4 Results

4.1 Direct Effect of AI Literacy and AI Self-Efficacy on Work-Life Balance

A multiple linear regression was conducted with Work-Life Balance as the dependent variable. Predictors were AI Literacy (AIL) and AI Self-Efficacy (SE). The overall model was not statistically significant, $F(2, 174) = 0.10$, $p = .904$, $R^2 = .001$, indicating that the predictors explained only 0.1% of the variance in Work-Life Balance.

Neither AI Literacy ($\beta = –.034$, $p = .747$) nor AI Self-Efficacy ($\beta = 0.000$, $p = .999$) were significant predictors of Work-Life Balance. Specifically, AI Literacy showed a very small negative effect that was not statistically significant, and AI Self-Efficacy had no effect.

Therefore, Hypothesis 1 and Hypothesis 2 were rejected, as neither AI Literacy nor AI Self-Efficacy significantly predicted Work-Life Balance in this sample.

4.2 Direct Effect of AI Literacy and AI Self-Efficacy on Job Satisfaction

A multiple linear regression was conducted with Job Satisfaction as the dependent variable. Predictors included AI Literacy (AIL) and AI Self-Efficacy (SE). The overall model was not statistically significant, $F(2, 174) = 0.42$, $p = .656$, $R^2 = .005$, indicating that the predictors explained only 0.5% of the variance in Job Satisfaction.

Neither AI Literacy ($\beta = .008$, $p = .936$) nor AI Self-Efficacy ($\beta = .064$, $p = .544$) significantly predicted Job Satisfaction. Specifically, AI Literacy showed no meaningful relationship with Job Satisfaction, and the positive association of AI Self-Efficacy with Job Satisfaction was not statistically significant.

Therefore, Hypothesis 3 and Hypothesis 4 were rejected**,** as neither AI Literacy nor AI Self-Efficacy significantly predicted Job Satisfaction in this sample.

4.3 Mediation Effect of Stress on the Relationship Between AI Literacy and Work-Life Balance

In hypothesis 5, it is assumed that the influence of AI Literacy on Work-Life Balance is mediated by Stress. In this analysis, the mediating role of Stress in this relationship is examined. To test hypothesis 5, a simple mediation analysis was conducted using Model 4 of the PROCESS macro for SPSS (Hayes,

2022). AI Literacy was entered as the independent variable, Stress as the mediator, and Work-Life Balance as the dependent variable.

First, the relationship between AI Literacy and Stress was examined, $F(1, 175) = 8.33$, $p = .004$, $R^2 = .05$. AI Literacy significantly predicted Stress ($b = –.18$, $p = .004$, $t = –2.89$, 95% CI [–.31, –.06]), indicating that higher AI Literacy is associated with lower Stress.

Then, the overall model predicting Work-Life Balance was examined, with both AI Literacy and stress as predictors. The model showed a significant effect on Work-Life Balance, $F(2, 174) = 45.36$, $p < .001$, $R^2 = .34$, accounting for 34.3% of the variation in Work-Life Balance. The direct effect of AI Literacy on Work-Life Balance was not significant ($b = .13$, $p= .139$, $t = 1.49$, 95% CI [–.04, .30]), indicating that the effect of AI Literacy on Work-Life Balance is not significant when controlling for Stress. However, Stress significantly predicted Work-Life Balance ($b = .97$, $p < .001$, $t = 9.51$, 95% CI [.77, 1.17]), suggesting that higher levels of Stress are associated with lower Work-Life Balance.

The total effect of AI Literacy on Work-Life Balance without considering the mediating variable Stress was not separately reported, but the direct effect was not significant ($b = .13$, $p = .139$), suggesting that the overall effect is driven by the mediator.

The indirect effect of AI Literacy on Work-Life Balance through Stress was significant, as the bootstrap confidence interval did not include zero ($b = –.18$, 95% CI [–.30, –.06]). Thus, the indirect effect of AI Literacy on Work-Life Balance through Stress is statistically significant.

Therefore, evidence was found for the mediating role of Stress in the relationship between AI Literacy and Work-Life Balance, supporting H5.

4.4 Mediation Effect of Stress on the Relationship Between AI Literacy and Job Satisfaction

In hypothesis 6, it is assumed that the influence of AI Literacy on Job Satisfaction is mediated by Stress. In this analysis, the mediating role of Stress in this relationship is examined. To test H6, a simple mediation analysis was conducted using Model 4 of the PROCESS macro for SPSS (Hayes, 2022). AI Literacy was entered as the independent variable, Stress as the mediator, and Job Satisfaction as the dependent variable.

First, the relationship between AI Literacy and Stress was examined, $F(1, 175) = 8.33$, $p = .004$, $R^2 = .05$. AI Literacy significantly predicted Stress ($b = –.18$, $p = .004$, $t = –2.89$, 95% CI [–.31, –.06]), indicating that higher AI Literacy is associated with lower levels of Stress.

Then, the overall model predicting Job Satisfaction was examined, with both AI Literacy and stress as predictors. The model showed a significant effect on Job Satisfaction, $F(2, 174) = 26.65$, $p < .001$, $R^2 = .23$, accounting for 23.5% of the variation in Job Satisfaction. The direct effect of AI Literacy on Job Satisfaction was not significant ($b = –.06$, $p = .438$, $t = –0.78$, 95% CI [–.20, .09]), indicating that AI Literacy does not significantly predict Job Satisfaction when controlling for Stress. However, Stress significantly predicted Job Satisfaction ($b = –.61$, $p < .001$, $t = –7.26$, 95% CI [–.77, –.44]), suggesting that higher levels of Stress are associated with lower Job Satisfaction.

The total effect of AI Literacy on Job Satisfaction without considering the mediating variable Stress was not separately reported, but the direct effect was not significant ($b = –.06$, $p = .438$), suggesting the relationship is indirect.

The indirect effect of AI Literacy on Job Satisfaction through Stress was significant, as the bootstrap confidence interval did not include zero ($b = .11$, 95% CI [.04, .20]). Thus, the indirect effect of AI Literacy on Job Satisfaction through Stress is statistically significant.

Therefore, evidence was found for the mediating role of Stress in the relationship between AI Literacy and Job Satisfaction, supporting hypothesis 6.

4.5 Mediation Effect of Perceived Job Security on the Relationship Between AI Literacy and Work-Life Balance

In hypothesis 7, it is assumed that the influence of AI Literacy on Work-Life Balance is mediated by Perceived Job Security. In this analysis, the mediating role of Perceived Job Security in this relationship is examined. To test H7, a simple mediation analysis was conducted using Model 4 of the PROCESS macro for SPSS (Hayes, 2022). AI Literacy was entered as the independent variable, Perceived Job Security as the mediator, and Work-Life Balance as the dependent variable.

First, the relationship between AI Literacy and Perceived Job Security was examined, $F(1, 175) = 4.73$, $p = .031$, $R^2 = .03$. AI Literacy significantly predicted Perceived Job Security ($b = .23$, $p = .031$, $t = 2.18$, 95% CI [.02, .44]), indicating that higher AI Literacy is associated with higher levels of Perceived Job Security.

Then, the overall model predicting Work-Life Balance was examined, with both AI Literacy and Perceived Job Security as predictors. The model showed a significant effect on Work-Life Balance, $F(2, 174) = 13.33$, $p < .001$, $R^2 = .13$, accounting for 13.3% of the variation in Work-Life Balance. The direct effect of AI Literacy on Work-Life Balance was not significant ($b = .04$, $p = .720$, $t = 0.36$, 95% CI [–.16, .23]), indicating that AI Literacy does not significantly predict Work-Life Balance when controlling for Perceived Job Security. However, Perceived Job Security significantly predicted Work-Life Balance ($b = –.36$, $p < .001$, $t = –5.14$, 95% CI [–.50, –.22]), suggesting that lower Perceived Job Security is associated with lower Work-Life Balance.

The indirect effect of AI Literacy on Work-Life Balance through Perceived Job Security was significant, as the bootstrap confidence interval did not include zero ($b = –.08$, 95% CI [–.18, –.01]). Thus, the indirect effect of AI Literacy on Work-Life Balance through Perceived Job Security is statistically significant.

Therefore, evidence was found for the mediating role of Perceived Job Security in the relationship between AI Literacy and Work-Life Balance, supporting hypothesis 7

4.6 Mediation Effect of Perceived Job Security on the Relationship Between AI Literacy and Job Satisfaction

In hypothesis 8, it is assumed that the influence of AI Literacy on Job Satisfaction is mediated by Perceived Job Security. To test H8, a simple mediation analysis was conducted using Model 4 of the PROCESS macro for SPSS (Hayes, 2022). AI Literacy was entered as the independent variable, Perceived Job Security as the mediator, and Job Satisfaction as the dependent variable.

First, the relationship between AI Literacy and Perceived Job Security was examined, $F(1, 175) = 4.73$, $p = .031$, $R^2 = .03$. AI Literacy significantly predicted Perceived Job Security ($b = .23$, $p = .031$, $t = 2.18$, 95% CI [.02, .44]), indicating that individuals with higher AI Literacy perceived greater job security.

Then, the overall model predicting Job Satisfaction was examined, with both AI Literacy and Perceived Job Security as predictors. The model was statistically significant, $F(2, 174) = 24.34$, $p < .001$, $R^2 = .22$, accounting for 21.9% of the variance in Job Satisfaction. The direct effect of AI Literacy on Job Satisfaction was not significant ($b = –.03$, $p = .722$, $t = –0.36$, 95% CI [–.17, .12]), indicating that AI Literacy does not significantly predict Job Satisfaction when controlling for Perceived Job Security.

However, Perceived Job Security significantly predicted Job Satisfaction (b = .35, p < .001, t = 6.93, 95% CI [.25, .45]), suggesting that greater job security is associated with higher Job Satisfaction.

The indirect effect of AI Literacy on Job Satisfaction through Perceived Job Security was significant, as the bootstrap confidence interval did not include zero (b = .08, 95% CI [.01, .16]). This indicates that Perceived Job Security mediates the relationship between AI Literacy and Job Satisfaction.

Therefore, hypothesis 8 is supported, providing evidence that the effect of AI Literacy on Job Satisfaction is significantly mediated by Perceived Job Security

4.7 Mediation Effect of Transparency on the Relationship Between AI Literacy and Work-Life Balance

In hypothesis 9, it is proposed that the relationship between AI Literacy and Work-Life Balance is mediated by AI Transparency. To test H9, a simple mediation analysis was conducted using Model 4 of the PROCESS macro for SPSS (Hayes, 2022). AI Literacy was entered as the independent variable, AI Transparency as the mediator, and Work-Life Balance as the dependent variable.

First, the relationship between AI Literacy and AI Transparency was examined. The model was statistically significant, $F(1, 175) = 21.37$, $p < .001$, $R^2 = .11$, indicating that AI Literacy significantly predicted AI Transparency (b = –.56, SE = .12, t = –4.62, p < .001, 95% CI [–.79, –.32]). This suggests that higher AI Literacy is associated with lower perceived AI Transparency.

Next, the overall model predicting Work-Life Balance, with both AI Literacy and AI Transparency as predictors, was examined. The model was not statistically significant, $F(2, 174) = 0.37$, p = .692, R^2 = .004, indicating that the predictors did not explain a significant proportion of variance in Work-Life Balance. The direct effect of AI Literacy on Work-Life Balance was not significant (b = –.07, SE = .11, t = –0.67, p = .506, 95% CI [–.29, .15]). Similarly, AI Transparency did not significantly predict Work-Life Balance (b = –.05, SE = .07, t = –0.73, p = .465, 95% CI [–.18, .08]).

The indirect effect of AI Literacy on Work-Life Balance through AI Transparency was also not statistically significant, as the bootstrap confidence interval included zero (b = .03, $BootSE$ = .04, 95% CI [–.05, .12]). This indicates that AI Transparency does not mediate the relationship between AI Literacy and Work-Life Balance.

Therefore, hypothesis H9 is not supported. There is no evidence that AI Transparency mediates the relationship between AI Literacy and Work-Life Balance.

4.8 Mediation Effect of Transparency on the Relationship Between AI Literacy and Job Satisfaction

In hypothesis 10, it is proposed that the relationship between AI Literacy and Job Satisfaction is mediated by AI Transparency. To test this, a simple mediation analysis was conducted using Model 4 of the PROCESS macro for SPSS (Hayes, 2022). AI Literacy was entered as the independent variable, AI Transparency as the mediator, and Job Satisfaction as the dependent variable.

First, the relationship between AI Literacy and AI Transparency was examined. The model was statistically significant, $F(1, 175) = 21.37$, $p < .001$, $R^2 = .11$, indicating that AI Literacy significantly predicted AI Transparency ($b = –.56$, $SE = .12$, $t = –4.62$, $p < .001$, 95% CI [–.79, –.32]). This suggests that higher AI Literacy is associated with lower perceived AI Transparency.

Next, the overall model predicting Job Satisfaction, with both AI Literacy and AI Transparency entered as predictors, was examined. The model was significant, $F(2, 174) = 4.50$, $p = .012$, $R^2 = .05$, accounting for 4.9% of the variance in Job Satisfaction. The direct effect of AI Literacy on Job Satisfaction was not significant ($b = .14$, $SE = .08$, $t = 1.63$, $p = .105$, 95% CI [–.03, .30]). However, AI Transparency significantly predicted Job Satisfaction ($b = .14$, $SE = .05$, $t = 2.92$, $p = .004$, 95% CI [.05, .24]), suggesting that greater perceived AI Transparency is associated with higher Job Satisfaction.

The indirect effect of AI Literacy on Job Satisfaction through AI Transparency was statistically significant, as the 95% bootstrap confidence interval did not include zero ($b = –.08$, $BootSE = .04$, 95% CI [–.16, –.02]). This indicates that AI Transparency mediates the relationship between AI Literacy and Job Satisfaction.

Therefore, hypothesis 10 is supported, suggesting that AI Literacy affects Job Satisfaction indirectly via its influence on perceived AI Transparency.

4.9 Direct Effect of Job Satisfaction on Work-Life Balance

For hypothesis 11, a simple linear regression was conducted with Work-Life Balance as the dependent variable and Job Satisfaction as the predictor. The overall model was statistically significant, $F(1, 175) = 84.63$, $p < .001$, explaining 32.6% of the variance in Work-Life Balance ($R^2 = .326$).

Job Satisfaction was a significant negative predictor of Work-Life Balance ($\beta = –.571$, $p < .001$), indicating that higher levels of Job Satisfaction are associated with lower levels of Work-Life Balance.

For every one-unit increase in Job Satisfaction, Work-Life Balance decreased by approximately 0.752 units, holding all other factors constant. Therefore, Hypothesis 11 was supported.

4.10 Hypotheses Results on Research model

Table 4.10.1 Hypotheses and results

Hypothesis	Result
H1: AI Literacy negatively predicts Work-Life Balance.	Rejected
H2: AI Self-Efficacy positively predicts Work-Life Balance.	Rejected
H3: AI Literacy positively predicts Job Satisfaction.	Rejected
H4: AI Self-Efficacy positively predicts Job Satisfaction.	Rejected
H5: Stress mediates the relationship between AI Literacy and Work-Life Balance.	Accepted
H6: Stress mediates the relationship between AI Literacy and Job Satisfaction.	Accepted
H7: Perceived Job Security mediates the relationship between AI Literacy and Work-Life Balance.	Accepted
H8: Perceived Job Security mediates the relationship between AI Literacy and Job Satisfaction.	Accepted
H9: AI Transparency mediates the relationship between AI Literacy and Work-Life Balance.	Rejected
H10: AI Transparency mediates the relationship between AI Literacy and Job Satisfaction.	Accepted
H11: Job Satisfaction negatively predicts Work-Life Balance.	Accepted

5 Discussion and Conclusion

This chapter aims to explore and conclude the key findings that emerged from the research presented in Chapter Four. This chapter will start with a detailed discussion of the main results in relation to the initial hypotheses and theoretical framework. Following this, the chapter addresses the limitations, and practical and theoretical implications, and offers suggestions for future research.

5.1 Discussion of Findings

The main objective of this thesis was to find an appropriate answer to the research question "*How do AI literacy and AI self-efficacy affect employees' job satisfaction and work-life balance, and to what extent are these relationships mediated by stress, perceived job security, and AI transparency?*" It was found that AI literacy did not negatively predict work-life balance or job satisfaction, however, AI literacy had both direct negative and indirect positive effects on either or both work-life balance and job satisfaction through stress, perceived job security, and AI transparency.

However, AI self-efficacy did not have a significant direct effect on either work-life balance or job satisfaction, suggesting that confidence in utilising AI may not directly translate into better workplace outcomes.

Moreover, stress, perceived job security, and AI transparency emerged as critical mediators in the relationship between AI literacy, and work-life balance, and job satisfaction. Whilst AI transparency mediated the relationship between AI literacy and job satisfaction, it did not significantly impact work-life balance.

Finally, job satisfaction was found to negatively predict work-life balance, indicating a potential underlying relation. These findings contribute to a more layered understanding of how AI-related skills and perceptions shape employees' professional and personal well-being. This section will explore the outcomes of each hypothesis in detail to come to a clear and detailed answer to the research question of this thesis.

5.1.1 Direct Effects of AI Literacy and AI Self-Efficacy on Work-Life Balance

The findings showed no significant relationship between AI literacy and work-life balance, indicating that higher AI literacy did not have a measurable impact on individuals' ability to balance work and personal life. Although AI literacy is often associated with enhanced digital competency (Ng et al., 2021, p. 1-2), any potential effects on work-life balance were not significant. It was expected that AI literacy might positively mediate work-life balance, however, this was not evident in the data. One

possible explanation to explore in the discussion section is that despite high AI literacy, individuals may still experience mistrust towards AI technologies, which could undermine any beneficial effects on work-life balance. Whilst AI-literate employees may engage more with AI tools and experience increased digital connectivity and work demands, these factors did not translate into a statistically significant effect in this study (Guest, 2002, p. 258; Bharadiya et al., 2023, p. 87). Moreover, whilst AI literacy allows for more effective interaction with AI tools, its influence on work-life balance may still be limited. As Guo et al. (2025) note, users often engage with AI not to reduce efforts or time spent working, but to enhance productivity and explore more ideas within the same time constraints (p.10). This suggests that AI literacy may help individuals work more efficiently, but does not necessarily decrease working hours or reduce demands. Thus, its potential to affect one's work-life balance is limited. Moreover, one's AI literacy may not be as important as predicted as individuals may be spending the same amount of time working. The growing use of AI enabling work from anywhere and anytime could still pose challenges to work-life boundaries, especially without organizational support (Chuang et al., 2025, p. 8-9; Aye et al., 2024, p. 2), but these challenges were not reflected significantly in the current findings of this research.

Similarly, Hypothesis 2, which predicted a positive relationship between AI self-efficacy and work-life balance, was also not supported. Despite previous existing literature suggesting that higher AI self-efficacy can help individuals manage job stress and adapt to technological changes more effectively (Kim & Lee, 2025, p. 1806), this effect was not evident. One explanation might be the reliance on self-reported self-efficacy, which may not fully capture the actual psychological strain or behavioural adaptations in AI-integrated workplaces. Self-reported self-efficacy may lead individuals to overestimate their skills rather than focus on their knowledge (Ernst et al., 2025, p.15). Participants' confidence in interacting with AI did not significantly correspond to improvements in work-life balance, potentially because AI implementation may still increase workload, keep working hours the same, or blur work-life boundaries (Kim & Lee, 2025, p. 1812; Aye et al., 2024, p. 2; Guo et al., 2025, p.10). Moreover, higher AI self-efficacy could lead individuals to engage more with AI technologies, increasing availability and accountability, which might hinder their ability to disconnect during non-work hours. Thus, whilst AI self-efficacy is theoretically a protective factor, its influence on work-life balance appears more dependent on the context and was not significant in this study.

Overall, although neither AI literacy nor AI self-efficacy showed a direct significant effect on work-life balance, it is important to consider that a positive mediation effect may still explain these relationships. For example, the expected positive impact of AI literacy on work-life balance could be mediated by other factors.

5.1.2 Direct Effects of AI Literacy and AI Self-Efficacy on Job Satisfaction

Contrary to expectations, the results of this thesis showed no significant direct effect of AI literacy or AI self-efficacy on job satisfaction, resulting in the rejection of Hypotheses 3 and 4. This finding stands in contrast to previous literature suggesting that AI literacy would enhance job satisfaction by increasing confidence and adaptability in AI-integrated workplaces. Similarly, past research identified AI self-efficacy as a resource for reducing stress and improving workplace outcomes (Kim & Lee, 2025, p. 1812). However, the present findings suggest that while these competencies may influence how individuals interact with AI, they do not necessarily translate into improved perceptions of job satisfaction, possibly due to external factors such as job design, organizational culture, or lack of control over AI implementation (Selenko et al., 2022, p. 273).

A potential explanation lies in the limitations of self-reported self-efficacy, which may not fully capture how employees actually experience technological change on a day-to-day basis. With self-reported self-efficacy, individuals may face difficulty grasping a realistic self-efficacy when it comes to AI due to basing their self-efficacy on outcomes, not their knowledge (Ernst et al., 2015, p.15). Individuals may feel confident in their AI abilities but still face reduced autonomy, increased monitoring, or job simplification, factors shown to lower job satisfaction (Bhargava et al., 2021, p. 111-112; Abubakar, 2019, p. 70-74). Furthermore, the mental load linked to job satisfaction in the forms of insecurity and automation anxiety may override any positive effects of AI-related competencies (Rhee & Jin, 2021, p. 5-6). As Chuang et al. (2025, p. 9) emphasize, job satisfaction in AI-integrated environments depends not only on individual capability, but also on contextual factors such as meaningful task allocation, role clarity, and organizational support. Therefore, whilst AI literacy and self-efficacy remain important, they may be insufficient on their own to affect job satisfaction in the workplace. Therefore, testing a mediation on this relation is essential as other factors may influence the significance of these relationships.

5.1.3 Mediating Effects of Stress Between AI Literacy and Work-Life Balance

The results support Hypothesis 5, indicating that stress significantly mediates the relationship between AI literacy and work-life balance. Whilst AI literacy on its own did not directly predict improvements in work-life balance, its indirect effect through stress was significant. This suggests that individuals with higher AI literacy may experience reduced stress when navigating AI-driven tasks, therefore improving their ability to manage work

and personal responsibilities more effectively. These findings align with Aye et al. (2024), who identify perceived stress as a key factor in diminishing one's capacity to balance work and life demands (p. 1-4). In this context, AI literacy may be a resource that balances stress and job-related anxiety, ultimately supporting better work-life integration.

Moreover, the role of stress as a mediator connects to the insights from Chuang et al. (2025), who document how AI-induced stressors, such as fears of displacement and increased demands for upskilling, can negatively impact work-life balance (p. 1-9). When individuals possess greater AI literacy, they are likely more prepared to manage demands, reducing stress and enabling a healthier work-life equilibrium. This confirms that stress can translate the resource of AI literacy into the balance between private and professional life.

5.1.4 Mediating Effects of Stress Between AI Literacy and Job Satisfaction

Hypothesis 6, where it was suggested that stress mediates the relationship between AI literacy and job satisfaction, was accepted. Although no significant direct effect was found between AI literacy and job satisfaction, the indirect pathway via stress was significant. This implies that AI literacy can enhance job satisfaction not directly, but by lowering job-related stress. As Fevre et al. (2003, p.726-728) and Wu et al. (2021, p.204-207) note, stress lowers satisfaction by promoting burnout, job disengagement, and negative workplace attitudes. In contrast, employees with higher AI literacy may experience less stress when encountering AI-driven decision-making, complex workflows, or evolving AI systems, thereby gaining greater satisfaction in their work roles.

This mediated relationship supports the broader literature on AI-caused workplace strain. Jin et al. (2024) and Ali et al. (2024) highlight that awareness and exposure to AI can increase job insecurity and stress, undermining job satisfaction (p. 2-7; p. 1180-1185). However, AI literacy appears to offer a shield by providing individuals with the skills needed to adapt and cope, lowering stress levels and, therefore, enhancing their job experience. The results reinforce the importance of considering psychological intermediaries like stress when examining how AI-related competencies affect employee outcomes.

5.1.5 Mediating Effects of Perceived Job Security Between AI Literacy and Work-Life Balance

The findings confirm Hypothesis 7, demonstrating that perceived job security significantly mediates the relationship between AI literacy and work-life balance. Employees with higher AI literacy tend to have greater confidence in their job stability during AI integration, which positively influences their ability to maintain a balanced work and personal life. This result aligns with Kong et al. (2025), who highlight that perceptions of job insecurity arising from AI adoption reduce employee engagement and well-being (p.10-13). By enhancing AI literacy, individuals may be able to control fears related to work loss or job uncertainty, easing stress and allowing for better management of work and non-work demands.

Perceived job security serves as a key mechanism through which AI literacy contributes to improved work-life balance, reinforcing the broader understanding of AI's influence on workplace attitudes. This finding highlights the critical role that employees' perceptions of job stability play in shaping their emotional and cognitive responses to AI-driven changes within organizations (Kong et al., 2025, p. 6).

5.1.6 Mediating Effects of Perceived Job Security Between AI Literacy and Job Satisfaction

Hypothesis 8 is supported, as the results indicate a significant mediating effect of perceived job security between AI literacy and job satisfaction. This suggests that higher AI literacy enhances employees' perceptions of perceived job security, which in turn positively influences their overall job satisfaction. These findings align with the view that perceived job security perceptions are crucial psychological mechanisms shaping employees' responses to AI implementation in the workplace (Kong et al., 2025, p. 10-13).

The positive mediation effect underscores that when employees feel more secure in their jobs due to better understanding and confidence in AI technologies, they may experience greater job satisfaction in their roles. However, this relationship is likely influenced by other organizational factors, such as job design and support systems, which also contribute to job satisfaction amongst AI-driven changes (Bhargava et al., 2021, p. 111-112; Ali et al., 2024, p. 1180-1185). Overall, the findings emphasize the importance of encouraging AI literacy to strengthen perceived job security, providing higher job satisfaction in AI-transformed work environments.

5.1.7 Mediating Effects of AI Transparency Between AI Literacy and Work-Life Balance

Hypothesis 9 is rejected, as the findings reveal no significant mediating effect of AI transparency on the relationship between AI literacy and work-life balance. Whilst AI transparency plays a critical role in fostering employee trust and understanding, its influence on work-life balance appears limited. This may be due to the multifaceted challenges employees face when balancing work and personal life, which extend beyond simply understanding AI systems. For example, concerns about data privacy, security, and ethical issues related to AI (Kong et al., 2025, p. 1-2), combined with the inherent complexity and opacity of AI technologies (Selenko et al., 2022, p. 272-273), may overshadow the potential benefits transparency could provide.

Moreover, even with enhanced transparency, employees might still experience stress from workload demands, organizational changes, or pressures unrelated to AI's decision-making processes, which ultimately affect their work-life balance. This suggests that whilst AI transparency can improve trust and security in AI, it may not reduce the external or structural factors that challenge work-life balance. Therefore, other mediating variables such as organizational support or workload management might be more critical in explaining how AI literacy affects work-life balance (Chuang et al., 2025, p. 1-9).

5.1.8 Mediating Effects of AI Transparency Between AI Literacy and Job Satisfaction

Hypothesis 10 is accepted, indicating that AI transparency significantly mediates the relationship between AI literacy and job satisfaction. Employees who have higher AI literacy are better prepared to tackle the functioning, logic, and limitations of AI systems used in their workplace, which fuels perceptions of transparency (Wang et al., 2019, p. 4, 12). This also aligns with the findings from Sullivan et al. (2020) who suggest that AI transparency is crucial to reduce any negative associations with AI and its implications (p.543). This increased transparency helps to debunk AI's "black box" nature, reducing feelings of uncertainty, anxiety, and mistrust that often arise when AI replaces or alters traditional job positions (Selenko et al., 2022, p. 272-273).

The presence of transparency enables employees to gain clearer insights into AI decision-making, improving their ability to collaborate effectively whilst feeling a sense of control and agency. This enhances their engagement and job satisfaction, as they feel more confident that AI systems are fair and accountable, rather than threatening. As Wang et al.

(2019, p. 4) emphasize, transparency not only builds trust and clarity but also supports algorithmic accountability, allowing employees to identify biases or errors within AI models, further promoting positive attitudes towards AI integration and implementation.

Overall, these findings suggest that AI transparency is a crucial psychological mechanism by which AI literacy translates into improved job satisfaction, helping to balance the benefits of AI assistance with employees' need for trust, fairness, and understanding in the workplace.

5.1.9 The Relationship Between Job Satisfaction and Work-Life Balance

Hypothesis 11 was tested and accepted, indicating that job satisfaction negatively predicts work-life balance. This finding aligns with existing literature that highlights the effects of job satisfaction on employees' personal lives. Although high job satisfaction is typically associated with positive work outcomes, it often leads to greater work engagement and organizational commitment, which can result in employees dedicating additional time and effort beyond their formal working hours (Kong et al., 2025, p. 12-13; Kim & Lee, 2025, p. 1821). Such increased involvement may blur the boundaries between work and personal life, making it difficult for employees to maintain a healthy work-life balance (Selenko et al., 2022, p. 276).

This overcommitment can contribute to increased stress levels and challenges in managing non-work roles, despite employees feeling satisfied at work. The results underscore the interplay between job satisfaction and work-life balance, particularly in AI-integrated workplaces where work demands and engagement may escalate due to constant connectivity. Understanding this relationship is crucial for developing organizational strategies that support employee well-being by balancing job satisfaction with personal life demands (Kong et al., 2025, p. 12-13; Kim & Lee, 2025, p. 1806).

5.2 Limitations

It is crucial to consider the limitations of this study to contextualize the findings and guide interpretations. The first limitation is the sample size. Although the sample of 177 participants was sufficient to address the research questions, it remains relatively small and limits the generalizability of the findings. Time constraints during the research process affected the ability and possibility to recruit a larger and more diverse group. Additionally, the survey was distributed primarily through online survey-

sharing platforms, which may produce unpredictable response rates. Whilst the sample was adequate for the scope of this study, a broader sample might support more representative insights across various contexts and sectors.

Another limitation relates to the method of data collection. The study aimed to capture perspectives from full-time employees with different levels of AI familiarity. However, conducting the survey exclusively online may have excluded individuals who are less active on digital platforms. This limitation also points to the potential value of combining digital surveys with offline methods to reach a wider and more diverse demographic and provide a more accurate depiction of modern society.

Low response rates are another consideration. Online surveys often face participation challenges, as potential respondents may ignore invitations or feel disconnected from the research process (Evans and Mathur, 2018, p. 859). Although pre-testing was conducted to improve clarity and accessibility, the use of more targeted data collection platforms could help improve the quality and consistency of responses, particularly amongst participants already familiar with digital tools or interested in topics involving technology.

The cross-sectional nature of the study presents an additional limitation. Since the data were collected at a single point in time, it is difficult to assess how relationships between AI literacy, AI self-efficacy, job satisfaction, and work-life balance might evolve over time. Understanding how these variables shift over time could offer deeper insights into how employees adapt to technological change and how their perceptions and experiences develop in response to it.

Self-reported data may also introduce bias. Participants may overestimate or underestimate their AI knowledge or workplace experiences, influenced by personal beliefs or the desire to present themselves positively. Participants may also selectively choose what data to share and what not to share (Brutus et al., 2013, p.51). Whilst this is a common issue in survey-based research, integrating objective measures of AI competency or supplementing survey data with interviews could help provide a more accurate and layered picture.

Lastly, this study did not explore in detail how demographic factors such as age, gender, occupation, or prior experience with AI might influence the relationships examined. These factors could shape how individuals engage with AI and experience its effects in the workplace. Paying closer attention to such variables may lead to more detailed and differentiated understandings of AI's impact across various employee groups.

5.3 Implications

The findings of this thesis carry several implications for both academic research and organizational practice. First, the demonstrated relationships between AI literacy and key employee outcomes, such as stress, perceived job security, AI transparency, job satisfaction, and work-life balance, underline the critical need for organizations to invest in educating their workforce about AI technologies. Enhancing AI literacy not only provides better understanding and trust in AI systems but also indirectly supports employee well-being and organizational outcomes through improved stress management, job satisfaction, and perceived job security.

The mediating role of stress, for instance, highlights the psychological mechanisms by which AI-related knowledge shapes workplace experiences, suggesting that organizations should consider not only technical and skill training but also emotional and cognitive support when implementing AI tools. Similarly, the significant mediating effects of perceived job security and AI transparency point to the importance of transparent communication strategies and reassurances around job stability during digital transformation processes. This aligns with previous findings (Kong et al., 2025, p. 1-13; Wang et al., 2019, p. 4) indicating that when employees understand how AI works and feel secure in their roles, their engagement and work-life balance improve.

Whilst some mediation effects were not supported, such as AI transparency between AI literacy and work-life balance, it still draws attention to potential gaps in organizational structures that transparency alone may not be able to fill. Furthermore, the acceptance of the hypothesis that job satisfaction negatively predicts work-life balance (Kim & Lee, 2025, p. 1821; Selenko et al., 2022, p. 276) raises important questions about how positive job-related attitudes can unintentionally lead to overwork and blurred boundaries between work and personal life, especially in modern AI-enhanced environments.

Therefore, it is essential that organizations design policies that illuminate not only the technological aspects of AI adaptation but also its human and psychological dimensions. For academia, this study contributes to a growing body of literature examining the intersection of AI, employee well-being, and organizational outcomes, and highlights the need for further research into contextual and individual variables, such as organizational support, role design, and personal adaptability, that may shape or moderate these effects.

Ultimately, the results suggest that as AI continues to transform modern workplaces, there remains a growing need for a human-centred approach to ensure that technological innovation leads to inclusive and psychologically healthy workplaces.

5.4 Future Research

Building on the findings and limitations of this study, several directions for future research emerge that could enrich the understanding of AI literacy and its impact on employee well-being and organizational outcomes. First, future research should aim to use larger and more diverse samples across more diverse industries and geographic regions to enhance the generalizability of the results and account for sector-specific dynamics in AI adaptation. Whilst this study focused on a general population sample, different industries may face distinct challenges and opportunities with AI integration, which can influence stress, job satisfaction, and perceptions of perceived job security differently.

Moreover, longitudinal research designs are recommended to capture the evolving nature of employee attitudes toward AI over time, as cross-sectional designs only provide a limited image of these relationships. Longitudinal data would allow researchers to investigate how AI literacy and its associated mediators develop as employees become more familiar with AI tools and as organizations implement supportive or unsupportive policies. AI will also keep developing, therefore investing in longitudinal data would be able to provide insights into developments both on a technological level and also concerning perceptions towards AI.

Future studies should also explore the moderating effects of variables such as organizational support, leadership style, digital readiness, and employee personality traits, which may strengthen or weaken the observed relationships. Additionally, given the reliance on self-reported data in this study, future research should consider incorporating objective measures or multi-source data, such as supervisor ratings or performance metrics, to validate and extend the findings.

It would also be useful to investigate the role of AI transparency more deeply, particularly in relation to trust, ethical concerns, and decision-making quality, as well as to develop interventions aimed at increasing transparency and employee agency in AI-supported work contexts. Finally, future work could benefit from qualitative approaches, such as interviews or focus groups, to capture the rich, subjective, and deeply personal experiences of employees navigating AI-implemented changes, which are often difficult to capture on a

quantitative level but remain crucial for a comprehensive understanding of human-AI interaction in the workplace.

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Appendices

Appendix A. Full questionnaire.

Dear participants, Thank you for your interest in this research. I am a MA Media & Business student working on my thesis. This study focuses on the effect of AI usage on individuals' work-life balance. We are inviting you to fill in a questionnaire. The questionnaire will take approximately 10 minutes to fill in. Please answer each question carefully and honestly, we are sincerely interested in your personal opinions. There are no right or wrong answers.

CONFIDENTIALITY OF DATA

All research data remain completely confidential and are collected in anonymous form. We will not be able to identify you. There are no foreseeable risks or discomforts associated with participating in this research.

VOLUNTARY

If you now decide not to participate in this research, this will not affect you. If you decide to cease your cooperation while filling in the questionnaire, this will in no way affect you either. You can cease your cooperation without giving reasons.

FURTHER INFORMATION

If you have questions about this research, in advance or afterwards, you can contact the responsible researcher, Maaike van Tilborg, email: 569533mt@eur.nl. Please indicate if you agree with the described procedure for participation. Yes, I confirm that I am 18 years old or above, I have read and understood the information about the study, and I agree to the study procedure and to the processing of personal data as described

Please indicate if you agree with the described procedure for participation: Yes, I confirm that I am 18 years old or above, I have read and understood the information about the study, and I agree to the study procedure and to the processing of personal data as described. (1) No, I would like to refrain from further participation in this study. (2) Skip To: End of Survey If answer is No.

How many years have you been working (on any type of full-time job)? Please indicate below Amount of time Years (1) Months (2)

How often do you use AI systems or tools (e.g., ChatGPT, Copilot, HR system) for work in a typical week? Never (1) Less than once a week (2) About once a week (3) 2-3 times a week (4) 4-5 times a week (5) Almost every day (6) Every day (multiple times) (7)

How often do you use AI systems or tools for everyday tasks in a typical week? Never (1) Rarely (1-2 times a week) (2) Occasionally (3-4 times a week) (3) About every other day (4) Most days (5-6 times a week) (5) Every day (6) Multiple times a day (7)

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. Options: Strongly agree (1), Somewhat agree (2), Neither agree nor disagree (3), Somewhat disagree (4), Strongly disagree (5)

- I can operate AI applications in everyday life (1)
- I can use AI applications to make my everyday life easier (2)
- I can use artificial intelligence meaningfully to achieve my everyday goals (3)
- In everyday life, I can interact with AI in a way that makes my tasks easier (4)
- In everyday life, I can work together with artificial intelligence in everyday life (5)
- I can communicate gainfully with artificial intelligence in everyday life (6)

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. Options: Strongly agree (1), Somewhat agree (2), Neither agree nor disagree (3), Somewhat disagree (4), Strongly disagree (5)

- I know the most important concepts of the topic Artificial intelligence (1)
- I know definitions of artificial intelligence (2)
- I can assess what the limitations and opportunities of using an AI are (3)
- I can assess what advantages and disadvantages the use of an artificial intelligence entails (4)
- I can think of new uses for AI (5)
- I can imagine possible future uses of AI (6)

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. Options: Strongly agree (1), Somewhat agree (2), Neither agree nor disagree (3), Somewhat disagree (4), Strongly disagree (5)

- I can tell if I am dealing with an application based on artificial intelligence (1)
- I can distinguish devices that use AI from devices that do not. (2)
- I can distinguish if I interact with an AI or a real human (3)

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. Options: Strongly agree (1), Somewhat agree (2), Neither agree nor disagree (3), Somewhat disagree (4), Strongly disagree (5)

- I can weigh the consequences of using AI for society (1)
- I can incorporate ethical considerations when deciding whether to use data provided by an AI (2)
- I can analyze AI-based applications for their ethical implications (3)

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. Options: Strongly agree (1), Somewhat agree (2), Neither agree nor disagree (3), Somewhat disagree (4), Strongly disagree (5)

- I can design new AI applications (1)
- I can program new applications in the field of artificial intelligence (2)
- I can develop new AI applications (3)
- I can select useful tools (e.g., frameworks, programming languages) to program an AI (4)

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. Options: Not at all true (1), Somewhat true (2), Mostly true (3), Exactly true (4)

- If someone opposes me, I can find means and ways to get what I want by using artificial intelligence. (1)
- It's easy for me to stay true to my goals and achieve my objectives with the help of artificial intelligence. (2)
- I am confident that I could efficiently face unexpected events by using artificial intelligence (3)
- Thanks to my wit supported by artificial intelligence, I know how to handle unforeseen situations (4)
- I can stay calm when facing difficulties because I trust my coping skills backed by artificial intelligence (5)
- No matter what comes up, I can usually handle it with the support of artificial intelligence (6)

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. Options: Strongly agree (1), Somewhat agree (2), Neither agree nor disagree (3), Somewhat disagree (4), Strongly disagree (5)

- I can rely on my skills in difficult situations when using AI (1)
- I can handle most problems in dealing with artificial intelligence well on my own (2)
- I can also usually solve strenuous and complicated tasks when working with artificial intelligence well (3)
- I can keep up with the latest innovations in AI applications (4)
- Despite the rapid changes in the field of artificial intelligence, I can always keep up to date (5)
- Although there are often new AI applications, I manage to always be up-to-date (6)

Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. Options: Not at all (1), Rarely (2), Occasionally (3), Sometimes (4), Often (5), Very often (6), All the time (7)

- My personal life suffers because of work (1)
- My job makes personal life difficult (2)
- I neglect personal needs because of work (3)
- I put personal life on hold for work (4)
- I miss personal activities because of work (5)
- I struggle to juggle work and non-work (6)
- I am happy with the amount of time for non-work activities (7)
- My personal life drains me of energy for work (8)
- I am too tired to be effective at work (9)
- My work suffers because of my personal life (10)
- I found it hard to work because of personal matters (11)
- My personal life gives me energy for my job (12)
- My job gives me energy to pursue personal activities (13)
- I have a better mood at work because of personal life (14)

- I have a better mood because of my job (15)

Q5 Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement.
Options: Strongly disagree (1), Somewhat disagree (2), Neither agree nor disagree (3), Somewhat agree (4), Strongly agree (5)

- I receive recognition for a job well done (1)
- I feel close to the people at work (2)
- I feel good about working at this company (3)
- I feel secure about my job (4)
- I believe management is concerned about me (5)
- On the whole, I believe work is good for my physical health (6)
- My wages are good (7)
- All my talents and skills are used at work (8)
- I get along with my supervisors (9)
- I feel good about my job (10)

Q9 Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement.
Options: Not at all (1), Slightly (2), Somewhat (3), Moderately (4), Very (5), Quite a bit (6), Extremely (7)

- AI is deceptive (1)
- AI behaves in an underhanded manner (2)
- I am suspicious of AI's intent, action, or output (3)
- I am wary of AI (4)
- AI's actions will have a harmful or injurious outcome (5)
- I am confident in AI (6)
- AI provides security (7)
- AI has integrity (8)
- AI is dependable (9)
- AI is reliable (10)
- I can trust AI (11)
- I am familiar with AI (12)

Q6 Please indicate how often each statement has been true for you last month.
Options: Never (1), Sometimes (2), About half the time (3), Most of the time (4), Always (5)

- In the last month, how often have you been upset because of something that happened unexpectedly? (1)
- In the last month, how often have you felt that you were unable to control the important things in your life? (2)
- In the last month, how often have you felt nervous and "stressed"? (3)
- In the last month, how often have you dealt successfully with irritating life hassles? (4)
- In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life? (5)
- In the last month, how often have you felt confident about your ability to handle your personal problems? (6)
- In the last month, how often have you felt that things were going your way? (7)

- In the last month, how often have you found that you could not cope with all the things that you had to do? (8)
- In the last month, how often have you been able to control irritations in your life? (9)
- In the last month, how often have you felt that you were on top of things? (10)
- In the last month, how often have you been angered because of things that happened that were outside of your control? (11)
- In the last month, how often have you found yourself thinking about things that you have to accomplish? (12)
- In the last month, how often have you been able to control the way you spend your time? (13)
- In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? (14)

Q7 Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement.
Options: Strongly disagree (1), Disagree (2), Somewhat disagree (3), Neither agree nor disagree (4), Somewhat agree (5), Agree (6), Strongly agree (7)

- I am allowed to decide how to go about getting my job done (1)
- I am able to choose the way to go about my job (2)
- I am free to choose the method(s) to use in carrying out my work (3)
- I have control over the scheduling of my work (4)
- I have some control over the sequencing of my work activities (5)
- My job is such that I can decide when to do particular work activities (6)
- My job allows me to modify the normal way we are evaluated so that I can emphasise some aspects of my job and play down others (7)
- I have some control over what I am supposed to accomplish (8)

Q8 Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement.
Options: Strongly disagree (1), Somewhat disagree (2), Neither agree nor disagree (3), Somewhat agree (4), Strongly agree (5)

- Chances are, I will soon lose my job (1)
- I am sure I can keep my job (2)
- I feel insecure about the future of my job (3)
- I think I might lose my job in the near future (4)

What is your age?
[Free text response]

What is your gender?

- Male
- Female
- Non-binary / third gender
- Prefer not to say

What is the highest level of education you have completed?

- Less than high school

- High school graduate
- Some college
- Associate degree (e.g., AA, AS)
- Bachelor's degree (e.g., BA, BS)
- Master's degree (e.g., MA, MS, MBA)
- Doctorate (e.g., PhD, EdD)

What is your nationality?
[Dropdown: Afghanistan … Zimbabwe]

What is your ethnicity?
[Dropdown: Asian … Prefer not to answer]

What is your current full-time job title?
[Free text response]

Any final comments or questions?
[Free text response]

Appendix B. SPSS Output

Factor Analysis – AI Literacy

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.905
Bartlett's Test of Sphericity	Approx. Chi-Square	3450.020
	df	231
	Sig.	<.001

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	9.063	41.197	41.197	9.063	41.197	41.197	7.499
2	3.530	16.044	57.241	3.530	16.044	57.241	4.488
3	2.562	11.647	68.888	2.562	11.647	68.888	6.329
4	1.209	5.498	74.386	1.209	5.498	74.386	4.751
5	.923	4.194	78.580				
6	.750	3.410	81.990				
7	.512	2.328	84.318				
8	.423	1.921	86.239				
9	.404	1.836	88.076				
10	.363	1.651	89.727				
11	.330	1.499	91.226				
12	.298	1.354	92.580				
13	.273	1.242	93.823				
14	.223	1.014	94.836				
15	.210	.954	95.790				
16	.185	.839	96.629				
17	.179	.813	97.442				
18	.162	.738	98.180				
19	.138	.627	98.807				
20	.121	.552	99.359				
21	.084	.380	99.739				
22	.057	.261	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Component Matrix[a]

	Component			
	1	2	3	4
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can assess what the limitations and opportunities of using an AI are	.749		-.341	
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can assess what advantages and disadvantages the use of an artificial intelligence entails	.745		-.382	
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I know the most important concepts of the topic Artificial intelligence	.737			-.315

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can tell if I am dealing with an application based on artificial intelligence	.732			
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I know definitions of artificial intelligence	.730			-.418
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can think of new uses for AI	.728			
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can distinguish devices that use AI from devices that do not.	.680			

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - In everyday life, I can interact with AI in a way that makes my tasks easier	.667	-.571		
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - In everyday life, I can work together with artificial intelligence in everyday life	.653	-.473	.356	
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can use artificial intelligence meaningfully to achieve my everyday goals	.652	-.485	.358	

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can use AI applications to make my everyday life easier	.649	-.576	.327	
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can communicate gainfully with artificial intelligence in everyday life	.641	-.462	.353	
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can imagine possible future uses of AI	.638			

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can operate AI applications in everyday life	.637	-.490		
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can distinguish if I interact with an AI or a real human	.629		-.334	
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can incorporate ethical considerations when deciding whether to use data provided by an AI	.626		-.474	.464

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can analyze AI-based applications for their ethical implications	.605		-.369	.436
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can weigh the consequences of using AI for society	.576		-.330	.530
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can develop new AI applications	.462	.688	.480	

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can program new applications in the field of artificial intelligence	.456	.675	.515	
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can design new AI applications	.517	.673	.424	
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can select useful tools (e.g., frameworks, programming languages) to program an AI	.477	.636	.460	

Extraction Method: Principal Component Analysis.
a. 4 components extracted.

Pattern Matrix[a]

	Component			
	1	2	3	4

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I know definitions of artificial intelligence	.940			
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I know the most important concepts of the topic Artificial intelligence	.807			
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can imagine possible future uses of AI	.761			
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can think of new uses for AI	.750			

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can assess what advantages and disadvantages the use of an artificial intelligence entails	.705			
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can assess what the limitations and opportunities of using an AI are	.634			
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can tell if I am dealing with an application based on artificial intelligence	.606			

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can distinguish devices that use AI from devices that do not.	.566			
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can distinguish if I interact with an AI or a real human	.540			
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can program new applications in the field of artificial intelligence		.972		

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can develop new AI applications		.958		
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can design new AI applications		.917		
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can select useful tools (e.g., frameworks, programming languages) to program an AI		.891		

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can use AI applications to make my everyday life easier			.941	
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can use artificial intelligence meaningfully to achieve my everyday goals			.914	
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - In everyday life, I can interact with AI in a way that makes my tasks easier			.910	

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - In everyday life, I can work together with artificial intelligence in everyday life			.881	
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can communicate gainfully with artificial intelligence in everyday life			.858	
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can operate AI applications in everyday life			.833	

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can weigh the consequences of using AI for society				.861
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can incorporate ethical considerations when deciding whether to use data provided by an AI				.858
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can analyze AI-based applications for their ethical implications				.799

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.[a]
a. Rotation converged in 8 iterations.

Reliability – AI Literacy

AI Knowledge

Reliability Statistics

Cronbach's Alpha	N of Items
.914	9

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I know definitions of artificial intelligence	18.51	48.263	.767	.900
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I know the most important concepts of the topic Artificial intelligence	18.31	49.088	.726	.903

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can imagine possible future uses of AI	18.56	49.816	.644	.909
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can think of new uses for AI	18.19	48.153	.719	.903
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can assess what advantages and disadvantages the use of an artificial intelligence entails	18.73	50.196	.757	.901

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can assess what the limitations and opportunities of using an AI are	18.64	49.687	.732	.902
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can tell if I am dealing with an application based on artificial intelligence	18.42	49.450	.710	.904
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can distinguish devices that use AI from devices that do not.	18.33	49.812	.642	.909

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can distinguish if I interact with an AI or a real human	18.73	51.401	.627	.909

AI Skills and Use

Reliability Statistics

Cronbach's Alpha	N of Items
.964	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can develop new AI applications	11.46	17.761	.933	.946

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can design new AI applications	11.55	17.874	.911	.952
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can program new applications in the field of artificial intelligence	11.47	17.807	.943	.943
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can select useful tools (e.g., frameworks, programming languages) to program an AI	11.67	18.928	.856	.968

Ethical Awareness

Reliability Statistics

Cronbach's Alpha	N of Items
.948	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can operate AI applications in everyday life	11.31	29.386	.787	.944
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can use AI applications to make my everyday life easier	11.29	27.479	.891	.932
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can use artificial intelligence meaningfully to achieve my everyday goals	11.01	28.085	.846	.938

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - In everyday life, I can interact with AI in a way that makes my tasks easier	11.18	28.228	.884	.933
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - In everyday life, I can work together with artificial intelligence in everyday life	11.14	28.747	.831	.939
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can communicate gainfully with artificial intelligence in everyday life	11.08	28.880	.805	.942

Data interpretation

Reliability Statistics

Cronbach's Alpha	N of Items
.859	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can weigh the consequences of using AI for society	4.72	4.295	.700	.833
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can incorporate ethical considerations when deciding whether to use data provided by an AI	4.80	4.027	.772	.768

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can analyze AI-based applications for their ethical implications	4.32	3.615	.738	.804

Factor analysis – AI Self Efficacy

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.857
Bartlett's Test of Sphericity	Approx. Chi-Square	846.452
	df	15
	Sig.	<.001

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.206	70.102	70.102	4.206	70.102	70.102
2	.808	13.475	83.576			
3	.388	6.461	90.037			
4	.309	5.149	95.186			
5	.193	3.215	98.401			
6	.096	1.599	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - Despite the rapid changes in the field of artificial intelligence, I can always keep up to date	.895
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can keep up with the latest innovations in AI applications	.886
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - Although there are often new AI applications, I manage to always be up-to-date	.871

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can handle most problems in dealing with artificial intelligence well on my own	.802
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can also usually solve strenuous and complicated tasks when working with artificial intelligence well	.795
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can rely on my skills in difficult situations when using AI	.765

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability – AI Self Efficacy

Reliability Statistics

Cronbach's Alpha	N of Items
.914	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can rely on my skills in difficult situations when using AI	14.36	27.651	.668	.911
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can handle most problems in dealing with artificial intelligence well on my own	14.40	27.787	.716	.905

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can also usually solve strenuous and complicated tasks when working with artificial intelligence well	14.41	27.630	.706	.906
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can keep up with the latest innovations in AI applications	14.08	25.453	.827	.889
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - Despite the rapid changes in the field of artificial intelligence, I can always keep up to date	13.85	24.410	.838	.887

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - Although there are often new AI applications, I manage to always be up-to-date	13.75	25.199	.804	.892

Factor analysis – Work Life Balance

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.870
Bartlett's Test of Sphericity	Approx. Chi-Square	1993.226
	df	105
	Sig.	<.001

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.705	44.697	44.697	6.705	44.697	44.697	6.026
2	2.485	16.566	61.264	2.485	16.566	61.264	3.382
3	1.548	10.322	71.586	1.548	10.322	71.586	3.762
4	.838	5.586	77.172				
5	.797	5.314	82.486				
6	.486	3.241	85.727				
7	.413	2.755	88.482				

8	.375	2.497	90.979				
9	.307	2.047	93.026				
10	.274	1.830	94.855				
11	.213	1.418	96.273				
12	.181	1.208	97.481				
13	.150	.997	98.478				
14	.119	.796	99.274				
15	.109	.726	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Pattern Matrix[a]

	Component		
	1	2	3
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - I put personal life on hold for work	.891		
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - My personal life suffers because of work	.886		
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - My job makes personal life difficult	.884		

Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - i neglect personal needs because of work	.876		
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - I miss personal activities because of work	.848		
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - I struggle to juggle work and non-work	.842		
WLB_14_R		.837	
WLB_12_R		.826	
WLB_13_R		.822	
WLB_15_R		.742	
WLB_7_R		.354	
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - My work suffers because of my personal life			.871

Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - I found it hard to work because of personal matters			.781
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - My personal life drains me of energy for work			.775
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - I am too tired to be effective at work			.721

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.[a]
a. Rotation converged in 6 iterations.

Reliability – Work Life Balance

Personal Life Interference with Work

Reliability Statistics

Cronbach's Alpha	N of Items
.786	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
WLB_7_R	14.7514	24.733	.330	.831
WLB_12_R	15.1243	23.996	.573	.745
WLB_13_R	14.6723	20.665	.744	.684
WLB_14_R	15.2373	23.239	.608	.733
WLB_15_R	14.8588	21.861	.626	.725

Work Interference with Personal Life

Reliability Statistics

Cronbach's Alpha	N of Items
.954	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - My personal life suffers because of work	14.93	56.029	.822	.949

Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - My job makes personal life difficult	15.19	54.338	.873	.943
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - i neglect personal needs because of work	15.15	53.774	.894	.941
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - I put personal life on hold for work	15.15	54.569	.843	.946
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - I miss personal activities because of work	15.25	54.517	.856	.945
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - I struggle to juggle work and non-work	15.21	53.859	.848	.946

Work personal Life Enhancement

Reliability Statistics

Cronbach's Alpha	N of Items
.870	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - My personal life drains me of energy for work	7.38	14.920	.622	.875
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - I am too tired to be effective at work	7.44	14.054	.774	.812
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - My work suffers because of my personal life	7.78	14.036	.785	.808

Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - I found it hard to work because of personal matters	7.77	14.983	.717	.836

Factor analysis – Job Satisfaction

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.906
Bartlett's Test of Sphericity	Approx. Chi-Square	733.150
	df	45
	Sig.	<.001

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.914	49.141	49.141	4.914	49.141	49.141
2	.982	9.824	58.965			
3	.815	8.150	67.116			
4	.688	6.876	73.992			
5	.587	5.874	79.866			
6	.554	5.541	85.407			
7	.441	4.414	89.821			
8	.410	4.096	93.918			
9	.370	3.704	97.621			
10	.238	2.379	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I feel good about my job	.848
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I feel good about working at this company	.837
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I feel secure about my job	.759
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - All my talents and skills are used at work	.707

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I get along with my supervisors	.669
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I receive recognition for a job well done	.667
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I feel close to the people at work	.659
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - My wages are good	.651

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - On the whole, I believe work is good for my physical health	.613
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I believe management is concerned about me	.541

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

Reliability – Job Satisfaction

Reliability Statistics

Cronbach's Alpha	N of Items
.878	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I receive recognition for a job well done	32.37	53.747	.570	.869
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I feel close to the people at work	32.37	52.906	.572	.868
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I feel good about working at this company	32.22	50.775	.766	.855
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I feel secure about my job	32.36	50.958	.678	.860

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I believe management is concerned about me	33.25	52.949	.458	.879
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - On the whole, I believe work is good for my physical health	32.69	53.045	.525	.872
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - My wages are good	32.63	52.211	.570	.869
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - All my talents and skills are used at work	32.82	50.558	.612	.866

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I get along with my supervisors	32.10	54.292	.565	.869
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I feel good about my job	32.26	50.375	.775	.854

Factor analysis – Stress

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.883
Bartlett's Test of Sphericity	Approx. Chi-Square	1165.768
	df	91
	Sig.	<.001

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.471	31.934	31.934	4.471	31.934	31.934	4.303

2	3.677	26.267	58.202	3.677	26.267	58.202	3.852
3	.955	6.823	65.024				
4	.706	5.042	70.066				
5	.690	4.926	74.993				
6	.568	4.058	79.050				
7	.491	3.509	82.559				
8	.466	3.330	85.889				
9	.446	3.188	89.077				
10	.400	2.855	91.931				
11	.353	2.524	94.456				
12	.283	2.021	96.476				
13	.265	1.894	98.370				
14	.228	1.630	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Component Matrix[a]

	Component	
	1	2
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you felt nervous and "stressed"?	.802	-.387

Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	.794	
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you felt that you were unable to control the important things in your life?	.760	
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you been angered because of things that happened that were outside of your control?	.758	-.325

Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you been upset because of something that happened unexpectedly?	.718	-.330
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you found that you could not cope with all the things that you had to do?	.596	-.332
S_6_R	.403	.667
S_7_R	.542	.652
S_5_R		.646
S_10_R	.446	.643
S_13_R	.457	.628
S_4_R		.586
S_9_R	.389	.585
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you found yourself thinking about things that you have to accomplish?	.328	-.532

Extraction Method: Principal Component Analysis.
a. 2 components extracted.

Pattern Matrix[a]

	Component	
	1	2
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you felt nervous and "stressed"?	.890	
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	.831	
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you been angered because of things that happened that were outside of your control?	.822	

Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you felt that you were unable to control the important things in your life?	.790	
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you been upset because of something that happened unexpectedly?	.789	
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you found that you could not cope with all the things that you had to do?	.682	
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you found yourself thinking about things that you have to accomplish?	.540	-.321

S_7_R		.829
S_6_R		.777
S_10_R		.776
S_13_R		.768
S_9_R		.698
S_5_R		.677
S_4_R		.527

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.[a]
a. Rotation converged in 4 iterations.

Reliability – stress

Affect job stress

Reliability Statistics

Cronbach's Alpha	N of Items
.850	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
S_4_R	17.0508	24.014	.404	.859
S_5_R	17.1469	22.683	.570	.835
S_6_R	17.3842	21.647	.662	.821
S_7_R	17.1243	20.757	.737	.809
S_9_R	17.1695	22.403	.587	.833
S_10_R	17.2260	21.540	.661	.821
S_13_R	17.2034	22.299	.661	.822

Work-Related Stress

Reliability Statistics

Cronbach's Alpha	N of Items
.883	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you been upset because of something that happened unexpectedly?	15.98	28.471	.703	.864
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you felt that you were unable to control the important things in your life?	15.87	27.023	.701	.862
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you felt nervous and "stressed"?	15.47	25.000	.823	.845

Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you found that you could not cope with all the things that you had to do?	15.82	28.009	.576	.878
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you been angered because of things that happened that were outside of your control?	15.71	26.877	.744	.857
Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you found yourself thinking about things that you have to accomplish?	14.85	30.141	.424	.895

Please indicate how often each statement has been true for you last month by selecting the option that best describes your experience. - In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	15.92	25.766	.752	.855

Factor Analysis – Perceived Job Security

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.799
Bartlett's Test of Sphericity	Approx. Chi-Square	351.823
	df	6
	Sig.	<.001

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.843	71.085	71.085	2.843	71.085	71.085
2	.583	14.581	85.667			
3	.337	8.417	94.084			
4	.237	5.916	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
PJS_4_R	.912
PJS_1_R	.871

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I am sure I can keep my job	.833
PJS_3_R	.748

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

Reliability – Perceived Job Security

Reliability Statistics

Cronbach's Alpha	N of Items
.859	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PJS_1_R	11.3220	10.083	.746	.804
PJS_3_R	11.7797	10.434	.589	.873
PJS_4_R	11.3955	9.638	.818	.773
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I am sure I can keep my job	11.4011	10.787	.686	.829

Factor analysis – AI Transparency

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.880
Bartlett's Test of Sphericity	Approx. Chi-Square	792.643
	df	21
	Sig.	<.001

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.499	64.270	64.270	4.499	64.270	64.270
2	.774	11.062	75.332			
3	.525	7.496	82.828			
4	.471	6.732	89.560			
5	.336	4.804	94.364			
6	.258	3.690	98.054			
7	.136	1.946	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I am confident in AI	.747
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - AI provides security	.813
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - AI has integrity	.784
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - AI is dependable	.852

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - AI is reliable	.901
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can trust AI	.866
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I am familiar with AI	.614

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

Reliability – AI Transparency

Reliability Statistics

Cronbach's Alpha	N of Items
.903	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I am confident in AI	20.50	58.956	.665	.894
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - AI provides security	21.31	56.077	.731	.887
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - AI has integrity	21.66	56.182	.693	.891

Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - AI is dependable	21.00	55.750	.773	.882
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - AI is reliable	20.95	54.639	.842	.875
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I can trust AI	21.20	54.716	.796	.879
Please read each of the following statements carefully. Indicate the extent to which you agree or disagree with each statement by selecting the option that best represents your opinion. - I am familiar with AI	19.90	59.746	.517	.912

Multiple regression

H1: AI Literacy negatively predicts Work-Life Balance.

H2: AI Self-Efficacy positively predicts Work-Life Balance.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.034[a]	.001	-.010	1.06990	.001	.101	2	174	.904

a. Predictors: (Constant), SE, AIL

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.231	2	.115	.101	.904[b]
	Residual	199.177	174	1.145		
	Total	199.408	176			

a. Dependent Variable: WLB

b. Predictors: (Constant), SE, AIL

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.220	.283		11.377	<.001	2.662	3.779
	AIL	-.047	.146	-.034	-.323	.747	-.335	.241
	SE	.000	.109	.000	-.002	.998	-.216	.216

a. Dependent Variable: WLB

H3: AI Literacy negatively predicts Job Satisfaction.

H4: AI Self-Efficacy positively predicts Job Satisfaction.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.070[a]	.005	-.007	.81118	.005	.423	2	174	.656

a. Predictors: (Constant), SE, AIL

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.557	2	.278	.423	.656[b]
	Residual	114.493	174	.658		
	Total	115.050	176			

a. Dependent Variable: JS

b. Predictors: (Constant), SE, AIL

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.529	.215		16.446	<.001	3.106	3.953
	AIL	.009	.111	.008	.080	.936	-.210	.227

SE	.050	.083	.064	.608	.544	-.113	.214

a. Dependent Variable: JS

H5: Stress mediates the relationship between AI Literacy and Work-Life Balance.

Run MATRIX procedure:

```
***************** PROCESS Procedure for SPSS Version 4.2 *****************

        Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
   Y  : WLB
   X  : AIL
   M  : S

Sample
Size:  177

**************************************************************************
OUTCOME VARIABLE:
 S

Model Summary
        R      R-sq       MSE         F       df1       df2         p
    .2131     .0454     .4143    8.3287    1.0000  175.0000     .0044

Model
            coeff        se         t         p      LLCI      ULCI
constant   3.1191     .1669   18.6922     .0000    2.7897    3.4484
AIL        -.1834     .0635   -2.8859     .0044    -.3087    -.0580

**************************************************************************
OUTCOME VARIABLE:
 WLB

Model Summary
        R      R-sq       MSE         F       df1       df2         p
```

```
     .5854      .3427      .7533    45.3566     2.0000   174.0000      .0000

Model
            coeff         se          t          p       LLCI       ULCI
constant     .1972      .3895      .5064      .6132     -.5715      .9659
AIL          .1303      .0877     1.4857      .1392     -.0428      .3033
S            .9691      .1019     9.5082      .0000      .7680     1.1703


****************** DIRECT AND INDIRECT EFFECTS OF X ON Y ****************

Direct effect of X on Y
    Effect         se          t          p       LLCI       ULCI
     .1303      .0877     1.4857      .1392     -.0428      .3033

Indirect effect(s) of X on Y:
     Effect    BootSE   BootLLCI   BootULCI
S    -.1777      .0605     -.3018     -.0622

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

------ END MATRIX -----
```

H6: Stress mediates the relationship between AI Literacy and Job Satisfaction

Run MATRIX procedure:

```
***************** PROCESS Procedure for SPSS Version 4.2 *****************

        Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : JS
    X  : AIL
```

M : S

Sample
Size: 177

****
OUTCOME VARIABLE:
S

Model Summary

R	R-sq	MSE	F	df1	df2	p
.2131	.0454	.4143	8.3287	1.0000	175.0000	.0044

Model

	coeff	se	t	p	LLCI	ULCI
constant	3.1191	.1669	18.6922	.0000	2.7897	3.4484
AIL	-.1834	.0635	-2.8859	.0044	-.3087	-.0580

****
OUTCOME VARIABLE:
JS

Model Summary

R	R-sq	MSE	F	df1	df2	p
.4843	.2345	.5061	26.6548	2.0000	174.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	5.4469	.3193	17.0615	.0000	4.8168	6.0770
AIL	-.0559	.0719	-.7780	.4376	-.1978	.0859
S	-.6065	.0835	-7.2588	.0000	-.7714	-.4416

********** DIRECT AND INDIRECT EFFECTS OF X ON Y **********

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
-.0559	.0719	-.7780	.4376	-.1978	.0859

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
S	.1112	.0401	.0398	.1998

********** ANALYSIS NOTES AND ERRORS **********

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

------ END MATRIX -----

H7: Perceived Job Security mediates the relationship between AI Literacy and Work-Life Balance

Run MATRIX procedure:

**************** PROCESS Procedure for SPSS Version 4.2 ****************

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

****
Model : 4
Y : WLB
X : AIL
M : PJS

Sample
Size: 177

****
OUTCOME VARIABLE:
PJS

Model Summary

R	R-sq	MSE	F	df1	df2	p
.1623	.0263	1.1353	4.7334	1.0000	175.0000	.0309

Model

	coeff	se	t	p	LLCI	ULCI
constant	3.3514	.2762	12.1337	.0000	2.8063	3.8966
AIL	.2288	.1052	2.1756	.0309	.0212	.4364

****
OUTCOME VARIABLE:

WLB

Model Summary

R	R-sq	MSE	F	df1	df2	p
.3645	.1329	.9937	13.3336	2.0000	174.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	4.4387	.3507	12.6583	.0000	3.7466	5.1308
AIL	.0358	.0997	.3587	.7203	-.1610	.2326
PJS	-.3636	.0707	-5.1415	.0000	-.5032	-.2240

********** DIRECT AND INDIRECT EFFECTS OF X ON Y **********

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
.0358	.0997	.3587	.7203	-.1610	.2326

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
PJS	-.0832	.0425	-.1757	-.0095

********** ANALYSIS NOTES AND ERRORS **********

Level of confidence for all confidence intervals in output:
95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

------ END MATRIX -----

H8: Perceived Job Security mediates the relationship between AI Literacy and Job Satisfaction

Run MATRIX procedure:

********** PROCESS Procedure for SPSS Version 4.2 **********

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

****
Model : 4
Y : JS
X : AIL
M : PJS

Sample
Size: 177

****
OUTCOME VARIABLE:
PJS

Model Summary

R	R-sq	MSE	F	df1	df2	p
.1623	.0263	1.1353	4.7334	1.0000	175.0000	.0309

Model

	coeff	se	t	p	LLCI	ULCI
constant	3.3514	.2762	12.1337	.0000	2.8063	3.8966
AIL	.2288	.1052	2.1756	.0309	.0212	.4364

****
OUTCOME VARIABLE:
JS

Model Summary

R	R-sq	MSE	F	df1	df2	p
.4676	.2186	.5167	24.3401	2.0000	174.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.3703	.2528	9.3747	.0000	1.8713	2.8694
AIL	-.0256	.0719	-.3563	.7220	-.1675	.1163
PJS	.3536	.0510	6.9335	.0000	.2529	.4542

****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
-.0256	.0719	-.3563	.7220	-.1675	.1163

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
PJS	.0809	.0376	.0090	.1597

********** ANALYSIS NOTES AND ERRORS **********

Level of confidence for all confidence intervals in output:
95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

------ END MATRIX -----

H9: AI Transparency mediates the relationship between AI Literacy and Job Satisfaction

Run MATRIX procedure:

********** PROCESS Procedure for SPSS Version 4.2 **********

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

****
Model : 4
Y : JS
X : AIL
M : Trans

Sample
Size: 177

****
OUTCOME VARIABLE:
Trans

Model Summary

R	R-sq	MSE	F	df1	df2	p
.3299	.1088	1.4874	21.3721	1.0000	175.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	4.7161	.3162	14.9169	.0000	4.0922	5.3401
AIL	-.5565	.1204	-4.6230	.0000	-.7941	-.3189

****

OUTCOME VARIABLE:
JS

Model Summary

R	R-sq	MSE	F	df1	df2	p
.2218	.0492	.6287	4.5027	2.0000	174.0000	.0124

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.8794	.3098	9.2948	.0000	2.2679	3.4908
AIL	.1350	.0829	1.6290	.1051	-.0286	.2987
Trans	.1433	.0491	2.9166	.0040	.0463	.2403

********** DIRECT AND INDIRECT EFFECTS OF X ON Y **********

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
.1350	.0829	1.6290	.1051	-.0286	.2987

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
Trans	-.0798	.0360	-.1625	-.0225

********** ANALYSIS NOTES AND ERRORS **********

Level of confidence for all confidence intervals in output:
95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

------ END MATRIX -----

H10: AI Transparency mediates the relationship between AI Literacy and Work-Life Balance

Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

****
Model : 4
Y : WLB
X : AIL
M : Trans

Sample
Size: 177

****
OUTCOME VARIABLE:
Trans

Model Summary

R	R-sq	MSE	F	df1	df2	p
.3299	.1088	1.4874	21.3721	1.0000	175.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	4.7161	.3162	14.9169	.0000	4.0922	5.3401
AIL	-.5565	.1204	-4.6230	.0000	-.7941	-.3189

****
OUTCOME VARIABLE:
WLB

Model Summary

R	R-sq	MSE	F	df1	df2	p
.0650	.0042	1.1412	.3691	2.0000	174.0000	.6919

Model

	coeff	se	t	p	LLCI	ULCI
constant	3.4486	.4174	8.2627	.0000	2.6249	4.2724
AIL	-.0744	.1117	-.6662	.5062	-.2949	.1460
Trans	-.0485	.0662	-.7320	.4652	-.1791	.0822

********** DIRECT AND INDIRECT EFFECTS OF X ON Y **********

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
-.0744	.1117	-.6662	.5062	-.2949	.1460

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
Trans	.0270	.0440	-.0504	.1240

********** ANALYSIS NOTES AND ERRORS **********

Level of confidence for all confidence intervals in output:
95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

------ END MATRIX -----

Linear Regression

H11: Job Satisfaction negatively predicts Work-Life Balance.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.571[a]	.326	.322	.87639	.326	84.627	1	175	<.001

a. Predictors: (Constant), JS

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.998	1	64.998	84.627	<.001[b]
	Residual	134.409	175	.768		
	Total	199.408	176			

a. Dependent Variable: WLB

b. Predictors: (Constant), JS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	5.878	.309		19.024	<.001	5.268	6.487
	JS	-.752	.082	-.571	-9.199	<.001	-.913	-.590

a. Dependent Variable: WLB

Appendix C: AI Usage Examples

Below are some examples of questions that were answered using ChatGPT:

1. What does AI self-efficacy and AI literacy mean?
2. How does the rise of AI use influence employees' work-life balance? - can you give me possible sub questions for this research question?
3. How do I do Anova with moderator? Please show me step by step how to do it on SPSS
4. How do you recode a question on SPSS where you only want one value in your new variable?
5. Can you give me possible hypotheses to test based on the given variables and described research?
6. Can you please interpret this SPSS output for me?
7. Based on all the previous results, which moderations or mediation would you advise me to run?
8. Do I have to do factor analysis for my thesis?
9. If I have done reliability testing, do I also need to do factor analysis?
10. Can you tell me all the steps on how to clean up my dataset after having just gotten it out of Qualtrics?
11. Based on my survey, what questions would you recommend me to recode and why?
12. Which SPSS tables do you need to interpret the Factor analysis output?
13. When running Hayes moderator and mediators, what is W and what is M?