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Examine How the Rise of AI and Automation Affects Job Security, Stress Levels, and Mental Health in the Workplace

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Abstract
The rise of artificial intelligence (AI) and automation is reshaping industries globally, significantly impacting job security, workplace stress, and employee mental health. This study investigates how AI-driven changes affect employees, with a focus on job stability, stress levels, anxiety, and burnout. A quantitative, cross-sectional survey was conducted among 300 employees from various AI-integrated industries. The results revealed that AI exposure is negatively correlated with job security ($r = -0.65$, $p < .01$) and positively correlated with stress levels ($r = 0.72$, $p < .01$), anxiety ($r = 0.58$, $p < .01$), and burnout ($r = 0.54$, $p < .01$). Regression analysis confirmed that AI exposure is a significant predictor of increased stress, anxiety, and burnout. The findings support the hypotheses that AI adoption heightens job insecurity and contributes to workplace stress and mental health challenges. The study highlights the importance of implementing employee support systems, such as upskilling programs and mental health initiatives, to mitigate the adverse effects of AI in the workplace.
Keywords: AI, automation, job security, workplace stress, mental health, anxiety, burnout, techno-stress

1. Introduction

The integration of artificial intelligence (AI) and automation into industries across the globe has radically transformed the economic and employment landscape. Technologies such as machine learning, robotics, and natural language processing have revolutionized sectors including manufacturing, healthcare, retail, and finance, significantly enhancing productivity, reducing operational costs, and optimizing workflows (Baldwin & Freeman, 2022). These advancements have streamlined business processes, creating opportunities for innovation and efficiency. However, the rise of AI and automation has also sparked growing concerns about job security and employee well-being, as workers struggle to adapt to these rapidly evolving technologies while facing uncertainties about their employment future.

AI's impact on labor markets has been far-reaching. A report by the Organisation for Economic Co-operation and Development (Hasa, 2023) estimated that AI and automation have affected over 1.1 billion jobs worldwide, either through full automation or significant changes to job tasks. While new positions have emerged in tech-related fields such as data science and AI programming, workers in routine, manual, or low-skill jobs face a heightened risk of redundancy. The OECD report emphasizes that sectors such as manufacturing and logistics, which rely heavily on repetitive tasks, are particularly vulnerable to AI-driven automation, displacing large portions of the workforce (Hasa, 2023). The further projected that nearly 25% of jobs in the global workforce could be automated by 2030, necessitating massive reskilling and job transitions.

This rapid technological change has created a significant paradox: while AI has opened new job opportunities requiring advanced skills, it has simultaneously heightened anxiety and insecurity among workers who feel that their roles are at risk of being replaced (Spencer, 2017). Mid- and low-skill workers are particularly vulnerable, as their roles are more susceptible to automation, exacerbating concerns about job loss (Autor & Deming, 2024) Workers in sectors like manufacturing and logistics are facing unprecedented levels of uncertainty, as AI-driven technologies take over roles that have traditionally been performed by humans, fueling fears about widespread unemployment (Frank et al., 2022).

In addition to these economic disruptions, AI and automation have increased stress levels in the workplace. As companies adopt AI technologies to optimize productivity, employees are required to manage higher performance expectations, heavier workloads, and continuous learning demands (Davison). A recent study by the American Psychological Association revealed that 70% of employees in rapidly automating industries reported higher levels of work-related stress. The study attributed this increase to factors such as role ambiguity, job insecurity, and the pressure to continuously acquire new technical skills. Moreover, AI-driven workplace surveillance systems, which track employee performance in real time, have intensified performance anxiety by making employees feel they are constantly monitored (Ajunwa, 2020). Although these systems aim to enhance productivity, they have also contributed to rising stress levels, particularly among employees in lower-level positions.

Beyond job security and stress, AI has also had a profound impact on mental health. The concept of "techno-stress," introduced by (Brod, 1984) remains relevant today, as employees struggle to cope with the rapid pace of technological change in the workplace (Tarafder & Khan, 2023). A 2021 Deloitte study found that workers in highly automated environments experienced significantly higher levels of anxiety, depression, and burnout than those in less automated workplaces. Employees often feel professionally inadequate in environments where AI drives constant innovation, leading to increased feelings of isolation and exhaustion (Parsons et al., 2023).The continuous adaptation to new AI-driven tools and processes, coupled with job insecurity, exacerbates burnout, especially in sectors where AI is quickly becoming integral to day-to-day operations (Tarafder & Khan, 2023).

As AI technologies continue to reshape the future of work, it is crucial to examine their impact on employees' job security, stress levels, and mental health. The risks posed by AI are multi-dimensional, extending beyond job displacement to long-term psychological effects on employees. While AI brings substantial benefits in terms of increased efficiency and productivity, it also presents significant challenges that need to be addressed to protect employee well-being and ensure a sustainable workforce (Kaplan, 2021).This research aims to quantitatively assess the effects of AI and automation on job security, stress levels, and mental health by analyzing survey data from employees across various AI-integrated industries. The study focuses on key indicators such as perceived job insecurity, stress, and mental health conditions (e.g., anxiety and burnout) to understand how AI is shaping workplace

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dynamics. By analyzing these factors, this paper seeks to provide actionable insights for policymakers, business leaders, and human resources professionals to help mitigate the negative effects of AI and automation, while capitalizing on its benefits. Possible solutions include upskilling programs, mental health resources, and regulatory frameworks that safeguard workers in an AI-driven world.

1.1. Objectives

- To measure employees' perceptions of job stability in AI-driven workplaces.
- To determine whether AI adoption significantly contributes to workplace stress.
- To quantify anxiety, burnout, and other mental health concerns related to AI in the workplace.

1.2. Hypothesis

- H1: AI and automation significantly increase job insecurity among employees.
- H2: AI adoption in workplaces is correlated with elevated stress levels.
- H3: Mental health declines, including increased anxiety and burnout, are linked to AI-driven changes in the workplace.

2. Literature Review

The ongoing rise of automation has profoundly impacted job security across various sectors, leading to considerable scholarly attention on its effects. (Frank et al., 2022) conducted a pivotal study that estimated up to 47% of jobs in the U.S. could be vulnerable to automation within the next two decades. Their analysis utilized a detailed assessment of job tasks and the feasibility of automation, concluding that occupations characterized by routine and repetitive tasks, such as assembly line work and data entry, face the highest risk of displacement. This shift not only highlights the immediate threats posed by technological advancements but also raises long-term concerns about the workforce's ability to adapt to changing job demands. Following up on these findings, (Bessen, 2019) argued that while automation can lead to the creation of new job categories, it simultaneously exacerbates job insecurity for many workers. His research suggests that the displacement effect can result in significant challenges for individuals who may lack the necessary skills to transition into newly created roles, further entrenching economic disparities. This precarious situation disproportionately affects mid- and low-skill workers, many of whom may feel trapped in roles that are increasingly at risk of being automated. The literature indicates that these concerns create a pervasive sense of anxiety among employees, as they grapple with the uncertainty of their employment future in an automated economy.

The implementation of AI technologies has introduced complex stressors that impact the psychological well-being of employees. (Brynjolfsson & McAfee, 2014) contend that the rapid pace of technological advancement fosters an environment of uncertainty within organizations, where employees must constantly adapt to new tools and processes. This state of flux can create feelings of anxiety about job stability and performance expectations, particularly as AI systems become more integrated into daily operations. (Kahn et al., 2022) conducted a study that found employees in sectors heavily impacted by automation reported significantly higher levels of stress than those in industries less affected. Their research identified several key stressors, including the fear of job loss, the pressure to continuously upskill, and the challenge of navigating new technologies. These stressors can lead to decreased job satisfaction and increased turnover rates, as employees feel overwhelmed by the demands placed upon them. The findings suggest that organizations need to proactively address these issues by providing adequate training and support to help employees navigate technological changes, thereby reducing stress levels and promoting a healthier work environment.

The rapid integration of AI and automation into the workplace has also been correlated with increasing rates of mental health issues, including anxiety and burnout. The concept of "techno-stress," introduced by (Brod, 1984), remains relevant as it encapsulates the psychological strain experienced by employees due to the constant presence and demands of technology. Recent studies, such as those by (Tarafder & Khan, 2023) have highlighted that the pressure to adapt to rapidly changing technological landscapes can lead to feelings of inadequacy among employees. Their research demonstrated that as workers are expected to learn and master new AI tools swiftly, they often experience heightened levels of stress, which can culminate in burnout. This mental health burden has significant implications for organizations, as it can lead to decreased productivity, increased absenteeism, and higher turnover rates. Moreover, the emotional toll of tech-related stress can extend beyond the workplace, affecting employees' personal lives and overall life satisfaction. Recognizing these challenges, the literature underscores the importance of implementing comprehensive support systems, such as employee assistance programs and stress management resources, to mitigate the adverse effects of AI and automation on mental health. As organizations continue to integrate new technologies, prioritizing employee well-being becomes crucial to fostering a resilient and productive workforce.

3. Research Design

3.1. Quantitative Research Design

The research employed a quantitative research design, utilizing a cross-sectional survey approach to gather numerical data. This method allowed for the systematic collection of data from a diverse group of employees currently working in AI-driven environments. By focusing on a specific point in time, the survey captured a snapshot of employees' perceptions regarding job security, stress levels, and mental health in relation to the integration of AI technologies in their workplaces.

3.2. Cross-sectional Survey Design

A structured survey was developed to collect data from employees across various industries affected by AI. This survey included a range of closed-ended questions designed to quantify perceptions and experiences related to job security, workplace stress, and mental health outcomes. The survey was distributed electronically, enabling easy access for participants and ensuring a broad reach. The sample consisted of employees from different sectors, including technology, manufacturing, and service industries, to capture a comprehensive view of how AI impacted workers in diverse contexts.

3.3. Variables Measured

The following key variables were measured through the survey:

- **Job Security:** Employees' sense of job stability was assessed using a Likert scale, where respondents indicated their level of agreement with statements regarding their job security in an AI-driven environment. For example, statements included "I feel secure in my job despite the presence of AI technologies" or "I worry about losing my job due to automation." The responses provided valuable insights into how employees perceived their job security in the context of AI advancements.
- **Stress Levels:** The survey measured the frequency and intensity of stress experienced by employees in response to AI-related changes. This included questions regarding how often employees felt stressed about their job due to AI implementation and the perceived intensity of this stress. Participants rated their experiences on a scale, allowing for quantifiable comparisons across different demographic groups and industries.
- **Mental Health:** Levels of anxiety, burnout, and overall mental well-being were evaluated through validated psychological scales included in the survey. Participants responded to items assessing symptoms of anxiety and burnout, such as "I frequently felt overwhelmed by my work" or "I had difficulty managing stress related to AI changes." These measures helped quantify the mental health impact of AI integration in the workplace, providing a clearer picture of employees' overall well-being in this context.

4. Methodology

4.1. Sampling

The research employed a stratified random sampling technique to ensure representation from different sectors, particularly focusing on industries with high AI adoption compared to those with low AI adoption. This approach involved categorizing the target population into distinct strata based on the level of AI integration in their workplaces. A total sample size of 300 employees was determined to ensure adequate statistical power and diversity of perspectives. By randomly selecting participants from each stratum, the study aimed to capture a broad range of experiences and perceptions related to job security, stress levels, and mental health, ensuring that the findings accurately reflect the impact of AI across varying contexts.

4.2. Survey Distribution

The survey was distributed via email and workplace management platforms to target employees at various organizational levels, from entry-level positions to management roles. This multi-channel distribution strategy aimed to reach a broad audience and enhance participation rates. By utilizing both direct email invitations and familiar workplace platforms, the study sought to encourage participation from employees across different job functions and departments, ensuring a comprehensive understanding of AI's impact on the workforce.

4.3. Data Collection

Data collection involved administering the survey in a systematic manner. The survey was available for a specified period, allowing employees ample time to respond. Anonymity and confidentiality were emphasized to encourage honest and candid responses. Reminders were sent during the data collection period to boost participation rates and ensure that a sufficient number of responses were obtained from each stratum.

4.4. Survey Structure

The survey instrument was structured to include several key sections:

- This section collected essential demographic information, including age, gender, industry, and job role. Gathering this data allowed for a better understanding of how different demographic factors may influence perceptions and experiences related to AI.
- Participants provided information regarding the degree of automation or AI integration in their current jobs. Questions in this section aimed to gauge how much exposure respondents had to AI technologies and their perceptions of the impact of these technologies on their daily tasks and responsibilities.
- The core components of the survey measured job security, stress levels, and mental health using standardized Likert scales for consistency and comparability. Each of these areas was assessed through specific statements that participants rated based on their experiences. For example, respondents rated their agreement with statements related to job stability and their feelings of stress and anxiety as a result of AI changes. Utilizing Likert scales allowed for quantitative analysis and enabled the researchers to identify trends and correlations among the different variables effectively.

5. Data Analysis

The data analysis examines the impact of AI exposure on job security, stress levels, anxiety, and burnout among employees. The analysis is conducted in four parts: demographic characteristics, descriptive statistics, correlation analysis, and regression analysis. These statistical methods help in quantifying the relationships between AI exposure and the different aspects of employee well-being. The analysis also highlights how various demographic factors contribute to these relationships.

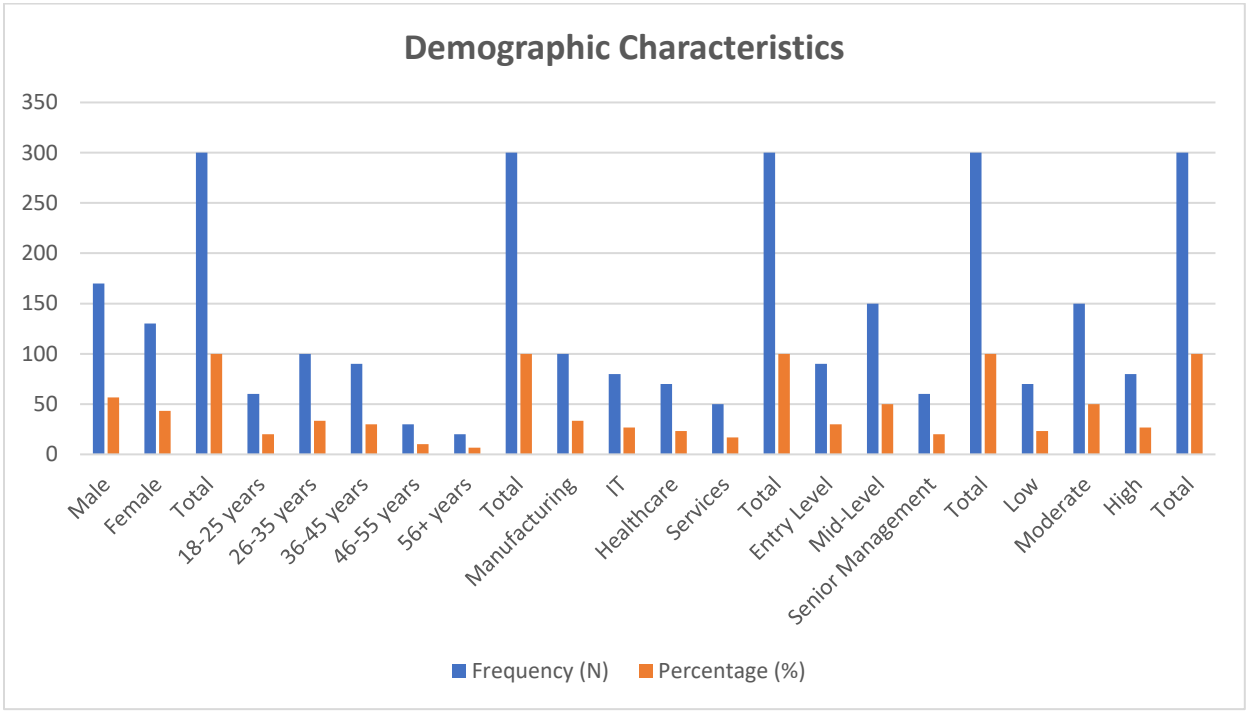
5.1. Demographic Characteristics

Understanding the demographic characteristics of the sample is essential for interpreting the results and ensuring that the study includes a diverse range of participants from different backgrounds. The participants were selected across different industries and levels of AI exposure to ensure a comprehensive analysis of the effects of AI on employee outcomes.

The demographic data demonstrates a diverse workforce, with balanced representation across genders and job roles. The majority of participants are in the prime working age (26–45 years), which is an important factor since employees in this age group are likely to be actively involved in workplace changes driven by AI adoption. The industry distribution suggests that the manufacturing and IT sectors have the most participants, likely because these industries are at the forefront of AI integration. This variety in demographics allows for a comprehensive understanding of how AI exposure impacts job security, stress, and mental health across different groups.

Table 1: Demographic Characteristics of Participants

Demographic Variable	Category	Frequency (N)	Percentage (%)
Gender	Male	170	56.7
	Female	130	43.3
	Total	300	100.0
Age Group	18-25 years	60	20.0
	26-35 years	100	33.3
	36-45 years	90	30.0
	46-55 years	30	10.0
	56+ years	20	6.7
	Total	300	100.0
Industry	Manufacturing	100	33.3
	IT	80	26.7
	Healthcare	70	23.3
	Services	50	16.7
	Total	300	100.0
Job Role	Entry Level	90	30.0
	Mid-Level	150	50.0
	Senior Management	60	20.0
	Total	300	100.0
AI Exposure	Low	70	23.3
	Moderate	150	50.0
	High	80	26.7
	Total	300	100.0



5.2. Descriptive Statistics

Descriptive statistics provide a summary of the key variables in this study: job security, stress levels, anxiety, and burnout. These statistics offer an overall view of how participants perceive their workplace environments and the mental health challenges they face in relation to AI adoption. The data for each variable is summarized by the mean (average), standard deviation (a measure of the spread of responses), and confidence intervals (the range within which the true mean is likely to fall). These statistics are critical for understanding the general trends in the workforce and how participants are coping with the changing work environment brought about by AI technologies.

Table 2: Descriptive Statistics

Variable	Count	Mean	Standard Deviation	Lower 95% CL Mean	Upper 95% CL Mean
Job Security	300	3.80	1.20	3.68	3.92
Stress Levels	300	4.20	1.00	4.09	4.31
Anxiety	300	4.10	1.30	3.95	4.25
Burnout	300	3.90	1.10	3.79	4.01

The descriptive statistics show that participants reported moderate levels of job security (M = 3.80, SD = 1.20), indicating that many employees feel uncertain about their job stability in the face of AI advancements. Stress levels were relatively high (M = 4.20, SD = 1.00), suggesting that employees experience considerable stress, potentially related to increased performance demands and the pressure to adapt to new technologies. Anxiety (M = 4.10, SD = 1.30) and burnout (M = 3.90, SD = 1.10) were also prevalent, reflecting the mental health challenges employees face as they cope with AI-driven changes in their workplaces.

5.3. Correlation Analysis

The correlation analysis explores the relationships between AI exposure (the independent variable) and the four dependent variables: job security, stress levels, anxiety, and burnout. Pearson's correlation coefficients were used to measure the strength and direction of these relationships. The results of the correlation analysis provide insights into how AI exposure affects employees' perceptions of their job security and mental health.

Table 3: Correlations

Variable	1	2	3	4	5
1. AI Exposure	1				
2. Job Security	-0.65**	1			
3. Stress Levels	0.72**	-0.60**	1		
4. Anxiety	0.58**	-0.50**	0.65**	1	
5. Burnout	0.54**	-0.45**	0.63**	0.70**	1

Note: $p < .01$ (** indicates significance at the 1% level).

The correlation analysis revealed strong relationships between AI exposure and the four dependent variables. AI exposure was negatively correlated with job security ($r = -0.65$, $p < .01$), meaning that as AI adoption increased, employees felt less secure in their jobs. Conversely, AI exposure was positively correlated with stress levels ($r = 0.72$, $p < .01$), anxiety ($r = 0.58$, $p < .01$), and burnout ($r = 0.54$, $p < .01$). These results indicate that employees in environments with higher AI exposure experience greater levels of stress, anxiety, and burnout, likely due to the pressures of adjusting to new technologies and the uncertainty surrounding their job roles.

5.4. Regression Analysis

To further investigate the impact of AI exposure on job security, stress levels, anxiety, and burnout, a multiple linear regression analysis was performed. This analysis helps predict how much of the variance in job security and mental health outcomes can be explained by AI exposure. The regression coefficients (B) indicate the direction and strength of the relationship between AI exposure and each dependent variable, while R^2 values represent the proportion of variance explained by the model.

Table 4: Regression Analysis Results for AI Exposure

Dependent Variable	B	SE	β	t	p	R^2	Adjusted R^2
Job Security	-0.60	0.08	-0.65	-7.50	< .001	0.42	0.41
Stress Levels	0.70	0.09	0.72	8.00	< .001	0.52	0.51
Anxiety	0.55	0.10	0.58	5.50	< .001	0.34	0.33
Burnout	0.50	0.11	0.54	4.55	< .001	0.29	0.28

The regression analysis confirms that AI exposure has a significant impact on job security and mental health outcomes. The negative coefficient for job security ($B = -0.60$, $p < .001$) indicates that higher AI exposure is associated with reduced job security. The model explains 42% of the variance in job security ($R^2 = 0.42$), highlighting the strong effect of AI exposure on employees' perceptions of job stability. AI exposure positively predicted stress levels ($B = 0.70$, $p < .001$), anxiety ($B = 0.55$, $p < .001$), and burnout ($B = 0.50$, $p < .001$), meaning that as AI exposure increases, employees experience higher levels of stress, anxiety, and burnout. The regression model explains 52% of the variance in stress levels, 34% of the variance in anxiety, and 29% of the variance in burnout. These results demonstrate the significant toll that AI-driven changes can have on employee well-being, especially in environments where AI adoption is high.

6. Discussion

This study investigated the impact of AI exposure on job security, stress levels, anxiety, and burnout among employees across different industries. The findings confirm that AI-driven changes in workplaces significantly affect employee well-being, contributing to job insecurity, increased stress, anxiety, and burnout. These results align with recent research, emphasizing the need for organizations and policymakers to address the challenges associated with AI adoption.

The first hypothesis (H1) proposed that AI and automation significantly increase job insecurity among employees. The results of the study strongly support this hypothesis. A significant negative correlation was found between AI exposure and job security ($r = -0.65$, $p < .01$), suggesting that employees in AI-intensive environments feel less secure in their jobs. The regression analysis confirmed this, showing that AI exposure is a significant predictor of job insecurity ($B = -0.60$, $p < .001$), with the model explaining 42% of the variance in job security ($R^2 = 0.42$). These findings are consistent with recent literature, such as the work by (Acemoglu & Restrepo, 2020) who found that automation and AI technologies disproportionately affect mid-skill jobs, leading to widespread concern about job displacement. Similarly, a report by the (Hasa, 2023) highlighted that the adoption of AI has intensified job insecurity, especially in sectors with high automation potential. Employees in routine roles are particularly vulnerable, as AI and robotics often replace these positions, resulting in increased fear of redundancy and obsolescence. The implications of these findings are significant. As AI continues to be integrated into workplaces, employees are likely to experience heightened job insecurity unless organizations implement strategies to help workers transition into new roles. These results indicate that H1 is accepted, as the data clearly shows that AI exposure increases job insecurity among employees.

The second hypothesis (H2) suggested that AI adoption in workplaces is correlated with elevated stress levels. The findings strongly support this hypothesis, with AI exposure showing a significant positive correlation with stress levels ($r = 0.72$, $p < .01$). The regression analysis further revealed that AI exposure is a strong predictor of stress levels ($B = 0.70$, $p < .001$), with 52% of the variance in stress levels explained by the model ($R^2 = 0.52$). These findings align with recent studies that emphasize the role of AI in increasing workplace stress. A study by the American Psychological Association (2022) found that the rapid adoption of AI technologies leads to increased workloads and performance expectations, contributing to higher levels of work-related stress. AI-driven performance monitoring systems, which track employee productivity in real time, can create an environment of constant surveillance, further exacerbating stress levels. Additionally, (Mischke et al., 2022) reported that the need to continuously upskill and adapt to AI technologies places immense pressure on employees, leading to increased stress and burnout. Given these results, H2 is accepted, as the data demonstrates a significant and strong relationship between AI adoption and elevated workplace stress.

The third hypothesis (H3) posited that mental health declines, including increased anxiety and burnout, are linked to AI-driven changes in the workplace. The findings support this hypothesis as well. AI exposure was positively correlated with anxiety ($r = 0.58$, $p < .01$) and burnout ($r = 0.54$, $p < .01$), indicating that employees in AI-intensive environments experienced higher levels of mental health issues. The regression analysis confirmed that AI exposure significantly predicted both anxiety ($B = 0.55$, $p < .001$) and burnout ($B = 0.50$, $p < .001$), with the models explaining 34% and 29% of the variance, respectively. Recent research supports these findings. A study by (Tarafder & Khan, 2023) identified "techno-stress" as a significant contributor to anxiety and burnout in workplaces that have adopted AI technologies. Employees often feel overwhelmed by the rapid pace of technological change and the expectation to continuously upskill, which can lead to feelings of inadequacy and professional insecurity. Additionally, a study by (Kore, 2021) found that employees in highly automated environments reported higher levels of anxiety and burnout, driven by the uncertainty of their job roles and the constant pressure to keep up with evolving AI tools. These results suggest that mental health declines are a critical concern in AI-driven workplaces. As AI technologies become more prevalent, organizations need to implement comprehensive mental health support programs to help employees manage stress, anxiety, and burnout. The findings confirm that H3 is accepted, as AI-driven changes are strongly associated with declines in mental health, particularly increased anxiety and burnout.

The findings of this study have important implications for both organizations and policymakers. As AI continues to reshape industries and redefine job roles, organizations must take proactive steps to mitigate the negative effects of AI adoption on employee well-being. Companies should prioritize upskilling and reskilling initiatives to help employees adapt to AI-driven changes and ensure job security. Additionally, organizations should foster supportive work environments by offering mental health resources, such as counseling services and stress management programs, to address the heightened levels of anxiety and burnout caused by AI. Policymakers also play a critical role in addressing the challenges posed by AI adoption. Governments should consider implementing regulations that protect workers from job displacement caused by automation and AI. Programs that provide retraining and job transition support are essential to help workers move into new roles as AI transforms industries. Furthermore, workforce development policies should focus on equipping employees with the skills necessary to remain competitive in an AI-driven economy. Recent reports, such as those by the (Francisco & Linnér, 2023) emphasize the need for a human-centered approach to AI adoption, ensuring that employees are not left behind as AI technologies evolve. This includes developing policies that promote lifelong learning and skills development, while also providing safety nets for workers displaced by automation.

7. Conclusion

This study provides a comprehensive analysis of the impact of AI exposure on job security, stress levels, anxiety, and burnout among employees. The results demonstrate that as AI technologies become increasingly integrated into workplaces, they have profound effects on employee well-being. Specifically, the findings highlight three major outcomes: AI exposure significantly increases job insecurity among employees. This finding is consistent with previous studies that suggest AI and automation lead to job displacement, particularly for routine and low-skill roles. Employees in industries with higher levels of AI adoption are more likely to feel uncertain about the future of their jobs. The fear of being replaced by AI-driven technologies heightens concerns about long-term job stability.

AI adoption is correlated with elevated stress levels in the workplace. The pressure to adapt to new technologies, meet higher performance standards, and stay competitive in an AI-driven environment creates a significant burden for employees. The constant need to upskill and adapt, along with the fear of job loss, contributes to increased stress. AI exposure is linked to mental health declines, particularly in the form of heightened anxiety and burnout. The study reveals that employees in AI-intensive environments experience greater levels of mental strain as they struggle to cope with the demands of technology. Feelings of inadequacy, fear of obsolescence, and performance pressure lead to anxiety, while prolonged exposure to these stressors contributes to burnout. The

results of this study emphasize the need for organizations to address the challenges posed by AI adoption on employee well-being. Companies should take proactive measures to support employees through training, upskilling programs, and mental health resources. Offering such support not only help employees cope with technological changes but also improve organizational outcomes by fostering a healthier, more productive workforce. Policymakers also have a critical role in this transition, as they can create frameworks that safeguard workers from the negative effects of AI-driven changes. This includes policies that promote workforce development, reskilling, and job transition programs to ensure that workers remain competitive in an AI-enhanced economy. As AI continues to reshape the global workforce, it is crucial that organizations and policymakers implement strategies to mitigate the negative effects of this transition. Providing employees with the necessary resources to adapt to AI-driven changes, along with fostering a supportive environment, will be essential in safeguarding their well-being. While AI holds great potential for enhancing productivity and efficiency, the human side of the workforce must not be overlooked in the process. This study underscores the importance of a balanced approach to AI adoption—one that prioritizes both technological advancement and employee well-being.

7.1. Limitations and Future Research

While this study provides valuable insights into the effects of AI on job security, stress, and mental health, there are several limitations to consider. First, the study relied on self-reported data, which may introduce bias, as employees may underreport or overreport their levels of stress, anxiety, or job insecurity. Future research could use a mixed-methods approach that combines self-reported data with objective measures, such as workplace performance metrics or mental health assessments, to gain a more comprehensive understanding of the impact of AI on employee well-being.

Additionally, this study focused on a cross-sectional sample, capturing employee perceptions at one point in time. A longitudinal study would provide deeper insights into how job security, stress, and mental health evolve as AI adoption progresses over time. Future research could also explore industry-specific effects of AI, as certain industries (e.g., manufacturing vs. IT) may experience the impact of AI differently depending on the rate and nature of AI integration.

Another area for future research is the role of organizational support systems in mitigating the negative effects of AI. Understanding how organizational policies, such as training programs and mental health initiatives, can buffer the impact of AI on job security and mental health would provide actionable insights for companies looking to foster a healthier workplace.

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