

AI in the Workplace: Exploring the Impact of Upskilling, Ethical Practices, and Transparency on Employment Sustainability and Trust

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ABSTRACT

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This research employs a quantitative methodology to examine the effects of ethical behaviours, transparency, and AI-driven upskilling on job sustainability and employee confidence in the labour market. A standardized Likert-scale questionnaire was used to gather data from 384 respondents, and SPSS and AMOS were used for structural equation modelling analysis. According to the findings, AI upskilling efforts have a major positive impact on the sustainability of employment, particularly when workers believe they are beneficial. Transparent corporate procedures and ethical AI systems have a favourable impact on employee trust. Furthermore, the association between upskilling efforts and job sustainability is mediated by the perceived value of AI upskilling, while the influence of ethical practices on trust is moderated by an open communication culture. These results emphasize how crucial it is to combine technological development with moral leadership and clear communication in order to build a reliable and long-lasting AI-driven workplace. For businesses looking to properly use AI and improve worker resilience in a rapidly changing technology environment, the report offers insightful information.

KEYWORDS: Artificial Intelligence (AI), Upskilling, Employment Sustainability, Ethical Practices, Transparency, Employee Trust.

1 INTRODUCTION

A new age in the workplace is starting with the development of artificial intelligence (AI), which is completely different how we work and reshaped sectors and job responsibilities. AI technologies will inevitably be incorporated into many facets of employment as they continue to develop at an unparalleled rate. Although this shift promises more productivity and efficiency, it also presents intricate and multidimensional issues, especially with regard to workers' digital well-being. Examining how AI's presence in the workplace impacts the wellbeing of the people who make up its backbone is essential in this age of constant connectedness and digital reliance (Tiwari et al., 2024).

The workplace is undergoing a major transformation due to the quick development and integration of automation and artificial intelligence (AI), which brings with it both enormous potential and difficult problems. This study makes the case that AI's transformative influence will shape the nature of work in the future, changing not only job roles and skill requirements but also posing important ethical queries regarding the nature of work, corporate responsibilities, and the necessity of just social and economic structures. This conversation aims to provide light on the way forward to a time where technology benefits mankind and fosters shared prosperity by examining the effects of automation and artificial intelligence on the job market as well as the moral questions they bring up (Review, 2025).

Artificial Intelligence (AI) is having a big influence on society and industry. Through recognition, comprehension, learning, and action, artificial intelligence (AI), which is defined as "a system's ability to interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation," has the potential to supplement or even replace human tasks and activities. Machine Learning (ML) is

presently a need for modern AI systems. Without explicit programming, computers can now learn from data thanks to the development of machine learning techniques and models. Large volumes of data are sent into a computer system for machine learning, which then use statistical methods to identify trends and connections in the data. The system is able to make predictions or take action based on the facts it has learnt. In the next ten years, experts believe that ML and AI will drastically change the nature of employment (Morandini et al., 2023).

1.1 Background of the study

One of the most crucial elements for businesses and their workers to preserve their capacity for innovation and long-term profitability is upskilling. New skills are needed in businesses as a result of technological change brought on by developing technologies. When discussing how new technologies are affecting workplaces, the World Economic Forum brings up the figure of 1.1 billion employment. Employees often feel unprepared for the related work in these domains, however, which emphasizes the need of upskilling (Beichter & Kaiser, 2023). Organizations must understand the anticipated change processes to which they are subjected, preferably early on in the emergence of change processes, in addition to the need of upskilling and preparing personnel for future jobs.

African American, Latino, and Arab-American job seekers and present workers have launched a class action discrimination complaint against XO Healthcare, causing the firm to face acute difficulties. According to the complaint, the business's hiring tool, which screened applications using artificial intelligence (AI), included biased algorithms that discriminated against certain groups (Burrell & Mcandrew, 2023). The plaintiffs successfully demonstrated throughout the trial that the algorithm itself reflected the prejudiced and discriminatory human judgment used in the system's construction and implementation. A \$19 million settlement was granted to the plaintiffs by the court. To safeguard the confidentiality of the actual company, XO Healthcare is a false name.

The way people live and work is changing dramatically as a result of digitalization. Depending on their use and goal, digital technologies may be used for good and advance society, but they can also give rise to ethical questions. Although the workplace is a significant setting where technologies might demonstrate their transformational potential, it is often overlooked in discussions of digital technology and ethical policy. Ethical issues are entwined with the effects of job automation and process digitization on labor conditions. New ethical problems emerge in data-driven, digitally linked, and automated workplaces. These include, for instance, the collection and handling of personal data, the evolution of the human worker's position and the nature of work, and the discomfort or worry experienced by employees who believe their employment are in jeopardy (Sara Riso, 2023).

The global economy, business, and society are all greatly impacted by the usage of technology, especially artificial intelligence (AI). Through recognition, comprehension, learning, and action, artificial intelligence (AI), which is defined as "a system's ability to interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation," has the potential to supplement or even replace human tasks and activities. Machine Learning (ML) is presently a need for modern AI systems. Computers can now learn from data without the need for explicit programming thanks to the development of machine learning techniques and models (Khalida ABI, Salah ZAKRAOUI, 2021).

The emergence of Industry 5.0 marks a significant shift in the ongoing evolution of industrial paradigms. Building on the foundations laid by its predecessors, Industry 4.0, and driven by technology advancements, Industry 5.0 envisions a future where intelligent systems and humans collaborate more closely than ever before. Concurrent application of artificial intelligence (AI) and human knowledge is the cornerstone of Industry 5.0, which aims to achieve sustainable and effective industrial operations (Valeriya et al., 2024). The global industrial environment is increasingly focused on the pursuit of sustainability as we enter the twenty-first century. The importance of incorporating AI-powered sustainability indicators into Industry 5.0 frameworks is highlighted by the reduction of environmental impact, optimization of resource use, and enhancement of economic performance. To thoroughly evaluate the effects of AI-driven sustainability efforts in the context of Industry 5.0, the current research initiates a longitudinal examination.

In order to boost efficiency and production, the fourth industrial revolution brings digital technology into the manufacturing process. Sensor technologies, virtual and augmented reality, distributed networking technologies, additive manufacturing, artificial intelligence and analytics, simulation, and cloud computing are examples of smart,

digital, autonomous, and intelligent technologies that are used in digital manufacturing technologies (DMTs). Because workers are expected to be strategic decision-makers and adaptable problem-solvers, this new wave of industrialization is predicted to improve the quality of work by fostering an exciting work environment and increasing autonomy for personal growth. Instead of "assisting or monitoring non-discretionary work flow steps or processes," an automated production system allows the operator to take on a more creative role (Leesakul et al., 2022). Applications of computer technology are seen to be crucial in enabling industrial operators. For instance, new industrial robotics technologies, like collaborative robots (cobots) (referred to in this paper as a variety of robots in accordance with ISO 15066 Technical Specification), have emerged where physical barriers are no longer necessary, enabling more flexible and lean processes and maximizing efficiency at work.

Traditional methods like work performance appraisal have been transformed by artificial intelligence (AI), which has progressively impacted many aspects of human resource (HR) management (Al-Omari et al., 2023). By using data-driven metrics and algorithms, this integration promises to improve the efficiency and impartiality of evaluating staff productivity and effectiveness. Alongside these developments, however, serious ethical questions have been raised about the use of AI-enhanced work performance indicators in HR environments. AI's main appeal is its capacity to swiftly and impartially digest enormous volumes of data. This capacity in HR results in more accurate assessments of worker performance using measures like productivity levels, behavioral patterns, and even physiological information. Organizations want to increase staff performance, optimize resource allocation, and expedite decision-making by automating these procedures (Robbins & Yaqoob, 2024). Notwithstanding these possible advantages, the use of AI in HR presents important moral questions that need serious thought. Fairness is one of the main issues. Because AI algorithms are often taught on historical data, they may unintentionally reinforce biases present in earlier human decision-making. For example, algorithms may inadvertently discriminate against people on the basis of gender, ethnicity, or socioeconomic status, which would exacerbate rather than lessen workplace inequality.

A growing number of human resource (HR) management aspects are being impacted by artificial intelligence (AI), which is transforming conventional procedures like job performance reviews. With data-driven metrics and algorithms, this integration offers increased objectivity and efficiency in evaluating worker productivity and effectiveness. However, significant ethical questions about the use of AI-enhanced work performance indicators in HR contexts have surfaced alongside these developments. The main attraction of artificial intelligence is its capacity to swiftly and impartially handle enormous volumes of data. From productivity levels to behavioral patterns and even biometric data, this capacity in HR translates into more accurate assessments of employee performance (Rick Mullin, 2023). The goal of automating these procedures is to increase worker performance by optimizing resource allocation and streamlining decision-making. Notwithstanding these possible advantages, there are important ethical concerns raised by the use of AI in HR that need careful thought. Fairness is among the most important issues. AI systems may unintentionally reinforce biases present in earlier human decision-making as they are often educated on historical data. An example of this would be algorithms that inadvertently discriminate on the basis of socioeconomic background, gender, or race, which would exacerbate rather than lessen workplace inequality.

The significance of this research stems from its topical examination of how artificial intelligence (AI) is changing the contemporary workplace, especially with regard to organizational trust and job sustainability. Understanding how upskilling programs, moral application, and open AI practices may reduce job displacement and boost employee confidence is becoming more and more important as AI continues to automate jobs and change work roles. The research intends to provide legislators, corporate executives, and human resource specialists important insights on how to create a fair and inclusive AI-driven workplace by looking at these important elements. In the end, our study adds to the continuing discussion about how to maximize AI's potential while protecting workers and promoting an ethical and trustworthy society.

This study contributes to the expanding corpus of research on the integration of artificial intelligence (AI) in the workplace by investigating the effects of upskilling programs, ethical AI practices, and transparency in AI deployment on employee trust and job sustainability. The study provides a comprehensive view of the human-AI relationship by examining these interconnected elements, emphasizing the value of ethical frameworks in maintaining justice and accountability, the necessity of transparent AI systems in promoting employee confidence, and the crucial role that ongoing learning plays in preventing job displacement. In the age of digital change, the results are intended to help

employers, legislators, and educators create policies that protect worker resilience and well-being while simultaneously advancing technology.

2 LITERATURE REVIEW

(Buchicchio & Alexander, 2025) looked at how AI may be incorporated into organizational systems, highlighting the relationship between human adaptability and technical progress. outlines the main obstacles, such as the crises of skill mismatch, changes in leadership, and employee engagement, and offers a methodology for strategically integrating AI via hybrid Human+ AI models. The report provided a roadmap for building AI-enabled, inclusive, and resilient businesses that prosper in the changing employment environment. Furthermore, a talent management use case for AI-based generative software tools is covered.

(Soulami et al., 2024) purposed of this research is to investigate, by bibliometric review and contextual analysis, the relationship between artificial intelligence and worker well-being. These papers were chosen because they addressed the research topic and were put through a thorough NVivo software thematic analysis. The findings of the bibliometric study show a notable rise in publications beginning in 2020, underscoring developments in research, mostly in China and the United States. The dynamics produced by artificial intelligence in the workplace are shown by the co-occurrence analysis, which finds four major clusters: ethics, job autonomy, employee stress, and mental health.

(Hassel, 2021) focused at how the growing usage of artificial intelligence (AI) technology is changing the job market in Germany. It also indicated areas for more investigation and draws attention to the gaps in the academic literature that already exist. Two important consequences of AI-enabled tools in labor markets were discussed in the paper's conclusion. If presented trends continue, AI-driven employment may exacerbate and prolong inequality, reducing opportunities for good work, equitable compensation, and sufficient social security. According to the report, decisions on the development, uptake, and used of AI technology in the workplace were still up for debate.

(Mirbabaie et al., 2022) identified three key drivers of AI identity danger in the workplace: job changes, loss of status, and AI identity. Artificial intelligence (AI) is being incorporated into organizations to improved cooperation and aid workers with job duties. The introduction of AI may have a detrimental influence on people's professional identities, since it was predicted to profoundly disrupt workplaces and professions, fueling anxieties of being replaced. This study contributed to the field of information systems by exploring cooperation with AI in the workplace, paving the way for future research. Researchers and practitioners understand the implications of workers' identities while cooperating with AI, as well as which aspects were crucial when implementing AI in the workplace.

(Sukarna Chakma, 2020) purposed of this article was to help enterprises educate their workforce with the necessary skills in this era of contemporary technology, which will result in significant advantages for both businesses and workers in the future. A company may increase the skills of its workers and generate a fully trained and developed workforce by reskilling or upskilling its workforce. It enhances retention in addition to raising revenue for the company. Making ensuring that workers' current abilities remain applicable was more important than ever in an era when technology was always advancing and driving change in the workplace.

(Tariq, 2024) investigated how artificial intelligence (AI) develops customized training plans and pinpoints skill gaps using machine learning algorithms and natural language processing. The abstract examined how AI systems adapt to various learners' preferences for speed, style, and level of competence while analysing AI's ability to provide individualized learning experiences. It examines AI-powered recommendation engines, adaptive learning systems, and intelligent tutoring systems, highlighting how they choose content based on student preferences and performance. Real-world case studies shown how AI can enhance employee training initiatives across a range of industries and how adaptable and scalable it can be in both large corporations and small and medium-sized enterprises.

2.1 Development of Hypothesis

H1: There is a significant relationship between AI-driven workforce upskilling programs and employment sustainability in AI-integrated industries.

(Wu et al., 2024) Examined how supply chain sustainability and resilience are affected by AI-driven demands in Industry 5.0. discover important AI-driven solutions for improving supply chain operations in China's ready-made garment (RMG) and footwear industries by combining probability analysis (PA), Bayesian-BWM (B-BWM), and Pareto analysis. Insights into customer demand and energy usage are provided by thorough data analysis and predictive forecasts made possible by AI-driven big data analytics, guaranteeing effective supply chain management. The ethical ramifications and legal frameworks around the used of AI must be taken into account, too, as must the need of education and training to closed the digital divide. To create a holistic Industry 15.0 that benefits all facets of society, cooperation between governments, businesses, and academic institutions was crucial.

(Aithal & Prabhu, 2024) aimed to investigate and evaluate the possible employment prospects resulting from the incorporation of AI-powered Generative Pre-trained Transformers (GPTs) in the primary, secondary, tertiary, and quaternary sectors of the economy. The research intends to shed light on how AI-driven GPTs might develop new positions, alter current job responsibilities, and spur innovation in different industries by analyzing the revolutionary effects of these cutting-edge AI technologies. Various search engines, AI-driven GPTs, and focus group interactions are used to gather data for exploratory research. New interpretations are then created by analyzing, contrasting, and assessing the data using a variety of analytical frameworks. AI-driven Generative Pre-trained Transformers (GPTs) have the potential to revolutionize workforce planning, skill needs, and training when they are integrated into primary, secondary, tertiary, and quaternary industrial sectors.

(Al Yahmadi et al., 2024) An AI-powered Workforce Transformation tool has been used by a major oil and gas business in Oman to redistribute superfluous employees within its contractual community. By identifying at-risk employees and skills shortages, the tool facilitates targeted redeployment. It has a varied delivery strategy that includes gap assessments, experience level requirements, competence matching, and a range of training techniques. The application also helps with job placement and post-training support. The effectiveness of the tool has been attributed to economic stability, data-driven talent matching, and proactive labor management. More than 500 job possibilities have been sustained as a result of the tool, which has also improved human capacity and competence within the company's contractual community.

H2: There is a significant relationship between addressing ethical concerns in AI systems and employee trust in AI in the workplace.

(February et al., 2025) looked at a number of case studies where ethical AI implementation was used. There were several problems with integrating moral principles with AI, including prejudice, responsibility, and openness. The Ethical Alignment Algorithm (EAA) was a novel paradigm that the author has put out here. This paradigm aids in the gradual integration of ethics and AI. EAA has the ability to created AI systems that are both morally upright and highly developed. The article concluded by outlining the state of AI research and its potential applications. Promoting justice and fairness in AI judgments for the general welfare of society was the primary goal of this study.

(R Arias Hernández, 2025) examined, within the context of the Inter PARES Trust AI project, the critical role that Artificial Intelligence (AI) literacy and competences play in the domains of records management and archiving practices. Two complimentary methodologies were used in the study: a thorough competence framework created by literature research and interviews with practitioners, as well as an extensive framework for AI literacy that was developed via several case studies and theoretical conversations. Results showed that archiving workers may use AI to improved their workflow by learning the fundamentals of artificial intelligence (AI), practical AI skills, data-related abilities, tool testing and assessment, integrating AI into their processes, and actively participating in cooperative projects with IT developers. Furthermore, algorithmic biases and data privacy raise serious ethical issues that need attention.

(Ibrahim et al., 2025) identified the most significant ethical concerns and suggests appropriate AI integration after conducting a thorough investigation of the ethical problems surrounding the used of AI in nursing practice in Arab countries. Major databases were searched extensively for relevant material. After 150 publications were first identified, 120 were chosen for full-text evaluation based on screening of the abstract and title. Fifty relevant papers were then included in this review. There were a number of important ethical issues with using AI in decision-making

processes. The evaluation also emphasized how AI can affect nurse-patient interactions and how important it can be for ethical committees and legal frameworks to address these concerns.

H3: Employee perceived usefulness of AI upskilling mediates the relationship between AI-driven workforce upskilling programs and employment sustainability in AI-integrated industries.

(Reitgruber, 2023) goal of this study was to find out how self-determination theory (SDT) and the unified theory of acceptance and use of technology (UTAUT) affect employees' desire to learn when compared to simple automation-based L&D. A PLS-SEM analysis was used to evaluate the suggested model on 144 respondents to an experimental survey. The findings showed that, in contrast to basic automation, AI in L&D boosts incentive to learn. The rise in perceived competence brought about by AI, however, completely mediates this impact, highlighting the need of offering workers specialized training based on their learning preferences and skill levels as well as regular feedback in order to promote perceived competence.

(Shichao Yu, 2024) presented study consists of two studies that examined how AI integration affects economic development via worker adaption, government policy, and technology infrastructure. Study I examined how worker adaption and government policies influence the link between AI integration and economic development. Study II expands the approach by including technology infrastructure as a moderator alongside government policy. Both researches used questionnaires to gather data before and after the 14th Five-Year Plan introduction. The study used Smart PLS SEM (v 4.0) with a reflective-reflective framework to examine higher-order constructs. Study II showed favourable results compared to Study I, demonstrating a better grasp of the influence of AI integration on economic development when considering technology infrastructure and political policies. These findings highlight the importance of government policy and technology infrastructure in maximizing the economic advantages of AI. This provided vital insights for policymakers and industry leaders to strategize AI integration and economic growth.

(Chandan Kumar & Jauhar, 2025) examined how worker attitudes affect the incorporation of Gen-AI in Supply Chain Management, Mixing techniques. This technique used survey data and mathematical modeling to evaluate the factors that impact Gen-AI integration, including productivity, job satisfaction, skill needs, retention rate, and management support. Research indicates that adoption of Gen-AI was crucial for work happiness, because skill disparities cause significant friction. Effective adoption requires top-level management support and smart investment management to enable Gen-AI capabilities. This research highlights the need of aligning technology and worker dynamics when integrating Gen-AI into SCM. This study fills a gap in the literature by examining worker perspectives of Gen-AI uptake and successful use in supply chain management.

H4: Organizational communication culture moderates the relationship between addressing ethical concerns in AI systems and employee trust in AI in the workplace.

(Rožman et al., 2023) examined the impact of artificial intelligence on organizational culture, leadership, employee training, team performance, and employee engagement in large and medium-sized Slovenian companies. PLS-SEM and CBSEM, to analyze linear and non-linear correlations among components. The empirical study included 437 medium-sized and Large Slovenian corporations. The study using both methodologies found that organizational culture had no substantial influence on AI-supported employee training. However, it had an impact on AI-supported leadership.

(Atalla et al., 2024) Examined how nurses' ethical awareness influences their views, attitudes, and creative work behaviours towards artificial intelligence. A cross-sectional descriptive correlational design based on STROBE principles. A nonprobability convenience sample of 415 Alexandria Main University Hospital nurses was investigated. Statistical techniques used included one-way ANOVA, student t-test, and Pearson coefficient. Results were analysed for significance at the 5% level and internal consistency using Cronbach's α . The study used linear regression to examine the relationship between ethical awareness, nurses' opinions and attitudes towards artificial intelligence, and innovative work. The research found that nurses had a mean perception of AI usage of 50.25, an average attitude towards AI of 71.40, ethical awareness of AI use of 43.85, and an average inventive behaviour of 83.63. Attitude and ethical awareness were shown to significantly predict creativity.

(Aslam et al., 2024) purposed of this research was to investigated how organizational culture and cognitive trust mediate and moderate the link between employee task performance, turnover intention, and leadership. A survey of 543 workers in Pakistan's Islamic banking industry was used to gather data. The influenced was estimated using partial least squares, a structural equation modeling technique. The findings showed that cognitive trust significantly and favorably mediates the relationship between task performance and leadership. Furthermore, via the mediation of cognitive trust, there was a negative correlation between leadership and the desire of employees to leave. Furthermore, the relationship between employee task performance and cognitive trust was significantly moderated by company culture.

(Gazi et al., 2024) aimed to explore how AI capacity (AIC) affects sustainable performance (SP), green innovation (GI), and organizational creativity (OC). Additionally, it seeks to examined the moderating influence of knowledge sharing culture (KNC) and the mediating functions of OC and GI. This research collected data from 421 workers in various Bangladeshi firms using a survey and quantitative technique. To examined the data, used the structural equation modeling (SEM) method. According to this research, OC, GI, and SP are all greatly impacted by AI competence. Among the proposed relationships, KNC acts as a moderator, while OC and GI act as mediators. This study stands out for being innovative in that it looks at many undiscovered areas in the corpus of existing research. Additionally, this study offered practitioners and policymakers insightful information on how to successfully used AI to improved organizational competitiveness.

(Roy et al., 2024) explored how ethical culture was conceptualized across disciplines and how important it was to moral decision-making. examined the causes, effects, and mediating and moderating functions of ethical culture in order to further future studies. Determine the metrics and theories used in earlier research and provide suggestions in order to achieve this. suggest using verified metrics, using a broader variety of theories, adopting longitudinal research, and analyzing group-level data in organizations, among other things. Examined study opportunities in emerging and innovative organizational structures, work organization strategies, and the use of technology—including artificial intelligence—in moral decision-making. further advise researching a variety of leadership philosophies and how they impact the development of moral corporate cultures.

2.2 Research gap

The study was A number of significant research gaps still exist in spite of the expanding corpus of work examining the incorporation of AI in organizational dynamics, ethical issues, and workforce development. A comprehensive knowledge of how these components interact across various organizational settings is lacking in the majority of current research, which concentrate on discrete factors like employee attitudes, ethical implementation, or AI-driven upskilling. The mediating and moderating factors that affect the link between AI integration and employee trust or employment sustainability, such as corporate communication culture, perceived utility of AI training, and cognitive trust, have little empirical support. Furthermore, there are few cross-industry comparative studies, despite the fact that sector-specific insights (such as those from the healthcare, supply chain, oil, and gas sectors) are significant. The long-term effects of ethical AI practices and AI literacy on worker engagement, job happiness, and creativity are also not well studied. Last but not least, current frameworks often ignore how infrastructure, leadership support, and governmental legislation shape AI's workforce effect, highlighting the necessity for a thorough, multi-level examination that connects organizational strategies that prioritize people with technology advancements.

3 METHODOLOGY

3.1 Research design

The study approach used a quantitative analysis to investigated the AI in the Workplace: Exploring the Impact of Upskilling, Ethical Practices, and Transparency on Employment Sustainability and Trust. To guarantee statistical analysis, a structured method was used to methodically gather and examine data from a representative sample of 384 respondents. A standardized questionnaire with Likert-scale questions to evaluate respondents' AI-driven workforce upskilling programs, employment sustainability, addressing ethical concerns in AI systems, employee trust in AI, Employee perceived usefulness of AI upskilling, and Organizational communication culture was utilized to collect data. The statistical package for the social sciences, or SPSS, was utilized in the study to analyze the data. For

structural equation modeling (SEM), AMOS (Analysis of Moment Structures) was used to assess the proposed hypotheses and examined the correlations between the primary variables.

3.2 Conceptual Framework

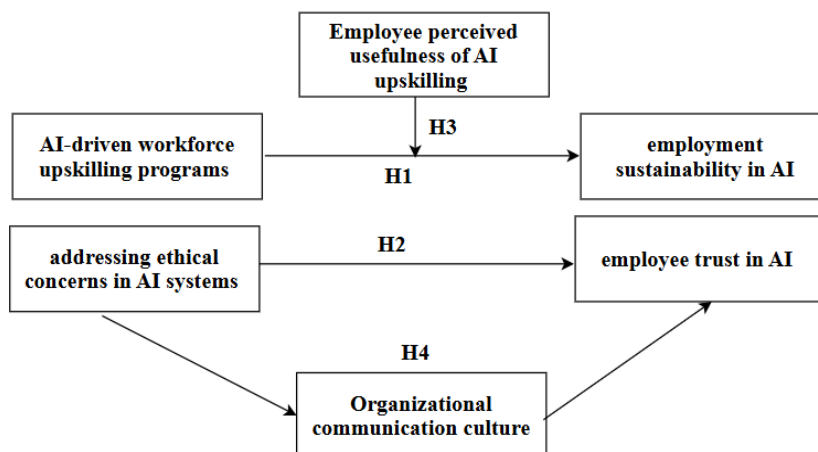


Figure 1 Conceptual frame work

The conceptual framework illustrates how ethical AI practices, corporate communication culture, and AI-driven workforce upskilling interact dynamically to support employee trust and job sustainability. It suggests that AI-driven upskilling initiatives (H1) increase workers' perceptions of the value of AI upskilling, which in turn improves employment sustainability (H3). The methodology also demonstrates that employee confidence in AI technology is directly increased when ethical issues in AI systems are addressed (H2). Furthermore, upskilling efforts and job sustainability are mediated by the perceived utility of AI upskilling, highlighting the significance of employee conviction in the benefits of such activities. By enhancing the beneficial benefits of moral AI practices on trust, organizational communication culture plays a critical moderating role (H4). Employee trust in AI integration is increased in an atmosphere that is open, inclusive, and transparent. All things considered, this model emphasizes how crucial technical training, moral leadership, and a culture of communication are to creating a reliable and long-lasting AI-enabled workplace.

3.3 Hypothesis

H1: There is a significant relationship between AI-driven workforce upskilling programs and employment sustainability in AI-integrated industries.

H2: There is a significant relationship between addressing ethical concerns in AI systems and employee trust in AI in the workplace.

H3: Employee perceived usefulness of AI upskilling mediates the relationship between AI-driven workforce upskilling programs and employment sustainability in AI-integrated industries.

H4: Organizational communication culture moderates the relationship between addressing ethical concerns in AI systems and employee trust in AI in the workplace.

3.4 Sample selection

The study employed a sample size of 384 respondents, ensuring a representative dataset for analysis. A broad and representative sample of participants across sectors and job positions will be obtained using A stratified random sampling method. was employed to AI in the Workplace: Exploring the Impact of Upskilling, Ethical Practices, and Transparency on Employment Sustainability and Trust.

3.5 Data collection

This study utilized a quantitative methodology, implementing systematic data gathering techniques to guarantee precision and dependability. The principal data gathering approach included a structured questionnaire aimed at assessing the AI in the Workplace: Exploring the Impact of Upskilling, Ethical Practices, and Transparency on Employment Sustainability and Trust. The questionnaire encompasses essential characteristics such credit approval experience, evaluated through several Likert-scale statements to thoroughly capture respondent impressions. Participants were requested to assess factors like data AI-driven workforce upskilling programs, employment sustainability, addressing ethical concerns in AI systems, employee trust in AI, Employee perceived usefulness of AI upskilling, and Organizational communication culture. The questionnaire was disseminated online by email, Google Forms, and fintech lending platforms to guarantee extensive participation and accessibility. secondary data from government publications, published studies, and institutional records will be added to the main data.

3.6 Measures

Data has been gathered with the help of a structured questionnaire. Questionnaire has been prepared using 5 Likert-scale (Strongly disagree to Strongly agree) where respondents will be asked to share their opinions regarding various research questions under study. Questionnaire has a set of both open ended and closed ended questions. Questions have been carefully crafted so as to gather meaningful information with respect to identified research variables. There are five categories of respondents in the survey and a separate questionnaire has been designed for each category of respondents. The bellow mention table show variables and no. items considered for the study.

S. No	Variable Name	No. Items
1	AI-driven workforce upskilling programs	5
2	Employment sustainability	5
3	Addressing ethical concerns in AI systems	5
4	Employee trust in AI	5
5	Employee perceived usefulness of AI upskilling	5
6	Organizational communication culture	5

4 RESULT

4.1 Demographic variable

Table 1 Demographic variable

Demographic Variables		Frequency	Percentage
Gender	Male	191	49.7
	Female	193	50.3
	Total	384	100.0
Age	25-34 Years	83	21.6
	35-44 Years	98	25.5
	45-54 Years	102	26.6
	Above 55 Years	101	26.3
	Total	384	100.0
Educational level	Diploma	112	29.2

Work experience	Undergraduate	126	32.8
	Postgraduate	146	38.0
	Total	384	100.0
	Less than 1 year	75	19.5
	1–5 years	66	17.2
	6–10 years	83	21.6
	11–15 years	92	24.0
	More than 15 years	68	17.7
	Total	384	100.0

The study surveyed 384 respondents to analyze the demographic mix pertinent to the influence of AI in the workplace. The gender distribution was almost even, with 49.7% male and 50.3% female participants. The majority of respondents were aged 35–54, with 25.5% in the 35–44 bracket, 26.6% in the 45–54 bracket, and 26.3% above 55 years, reflecting a mature and experienced workforce. Participants exhibited considerable educational qualifications, with 38.0% possessing postgraduate degrees, 32.8% holding undergraduate degrees, and 29.2% having diplomas. The work experience within the sample was diverse, with 24.0% possessing 11–15 years of experience, 21.6% having 6–10 years, and 19.5% with less than one year of experience. This varied demographic profile provides a robust basis for examining perceptions and effects of upskilling, ethical AI practices, and transparency on job sustainability and workplace trust.

Table 2 Internal Consistency and Convergent Validity

Constructs	Cronbach's Alpha	Composite Reliability	AVE
AI-driven workforce upskilling programs	0.879	0.83719	0.70104
employment sustainability	0.897	0.84078	0.71042
ethical concerns in AI	0.899	0.84506	0.72202
Employee trust in AI	0.859	0.82411	0.66919
Employee perceived usefulness of AI	0.848	0.79537	0.60951
Organizational communication culture	0.812	0.80767	0.63354

The assessment of reliability and validity of the constructs in the study demonstrates strong internal consistency and convergent validity across all assessed variables. Cronbach's Alpha scores for all constructs above the well-recognized threshold of 0.7, ranging from 0.812 to 0.899, so affirming substantial internal consistency and dependability. The Composite Reliability (CR) scores vary from 0.795 to 0.845, therefore confirming the constructions' consistency. The Average Variance Extracted (AVE) values for all constructs above the 0.5 threshold, indicating sufficient convergent validity. The results indicate that the measurement model is robust, and the constructs consistently represent the foundational theoretical concepts, including AI-driven workforce upskilling programs, employment sustainability, ethical issues in AI, employee trust in AI, perceived utility of AI, and organizational communication culture.

Table 3 Mean and standard deviation

Variables	Mean	Std. Deviation
AI driven workforce upskilling programs	3.6427	0.72368
Employment sustainability	3.6510	0.76633
Ethical Concerns in AI	3.8630	0.67456

Employee trust in AI	3.7266	0.68457
Employee perceived usefulness of AI	3.6984	0.68767
Organizational communication culture	3.7406	0.73907

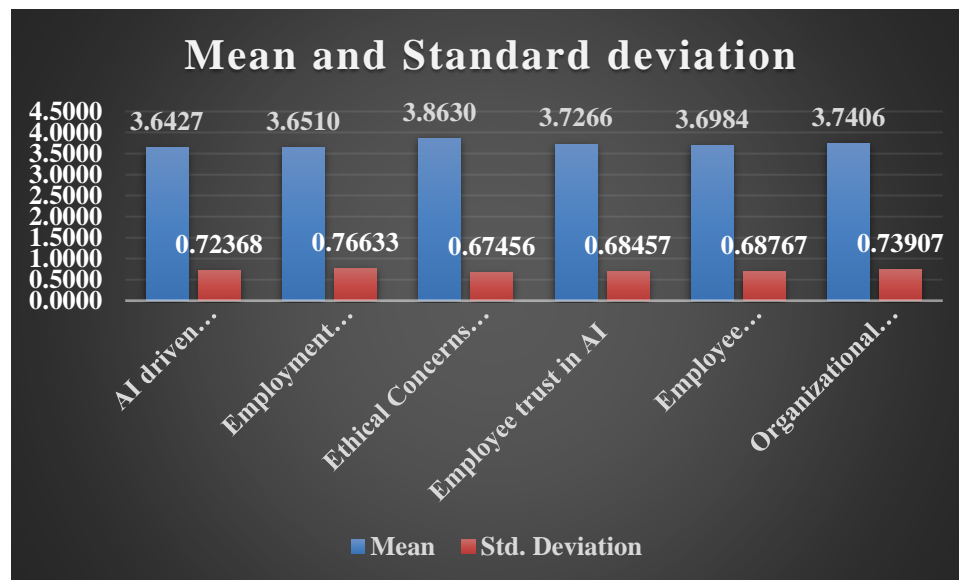


Figure 2 Mean and standard deviation

The data indicates the respondents' views on many variables associated with AI in the workplace. The average ratings reflect an overall favorable perspective on all categories, particularly highlighting ethical issues and faith in AI. The variable "Ethical Concerns in AI" has the highest mean score of 3.8630, indicating that respondents are notably attuned to ethical concerns related to AI. The following topic is "Employment Sustainability," which has a mean score of 3.6510, suggesting that respondents see the influence of AI on long-term work as a significant issue. The mean ratings for "AI-driven workforce upskilling programs" and "Employee trust in AI" exceed 3.6, indicating that respondents typically endorse AI-driven efforts for skill enhancement and possess a moderate degree of faith in AI systems. The "Employee perceived usefulness of AI" (3.6984) indicates a favorable perception of AI's practical utility in the workplace, whereas "Organizational communication culture" (3.7406) implies that the communication environment within organizations is regarded as relatively supportive of discussions regarding AI-related matters. The standard deviations for all variables demonstrate a modest degree of variety in respondents' opinions, with values between 0.67456 and 0.76633, indicating some variation in perspectives while maintaining general consistency in perceptions of these elements.

4.2 Hypothesis Test

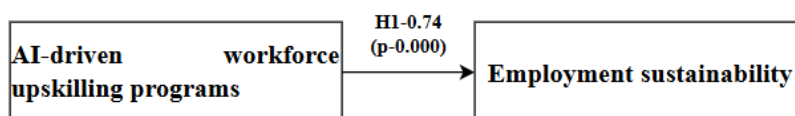
Table 4 Hypothesis test

Hypot hesis	Relationship			Estima te	C.R.	Sig. P- Value	Results
H1	AI driven Workforce upskilling programs	---->	Employment sustainability	0.74	12.216	***	Accepted
H2	Ethical concerns in AI	---->	Employee trust in AI	0.217	3.722	***	Accepted

Mediating							
H3	AI driven Workforce upskilling programs	---->	Employee perceived usefulness of AI	0.745	21.825		
	AI driven Workforce upskilling programs	---->	Employment sustainability	0.18	3.986	***	Accepted
	Employee perceived usefulness of AI	---->	Employment sustainability	0.666	14.787		
Moderating							
H4	Z Ethical Concern in AI	---->	Z Employee trust in AI	0.499	12.946	***	
	Z Organizational communication culture	---->	Z Employee trust in AI	0.413	10.694	***	Accepted
	Z Ethical Concerns in AI*Z Organizational communication culture	---->	Z Employee trust in AI	0.102	2.654	0.008	

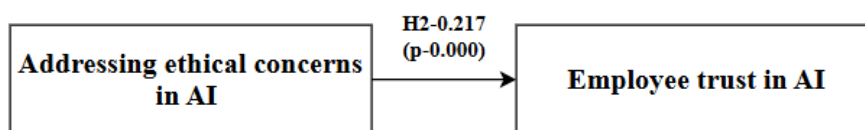
- **H1: There is a significant relationship between AI-driven workforce upskilling programs and employment sustainability in AI-integrated industries.**

The data demonstrates a strong and statistically significant relationship among AI-driven workforce upskilling initiatives and employment sustainability in AI-integrated sectors. The high estimated value of 0.74 and a critical ratio (C.R.) of 12.216 indicate that organizations that execute AI-centric upskilling efforts significantly impact employment sustainability. This indicates that such programs proficiently prepare individuals for the changing requirements of AI-integrated workplaces, hence safeguarding their ongoing relevance and job security.



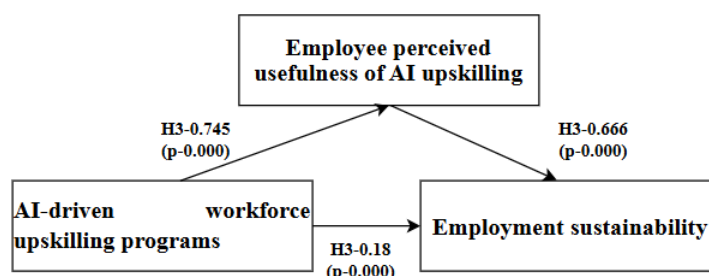
- **H2: There is a significant relationship between addressing ethical concerns in AI systems and employee trust in AI in the workplace.**

The results indicate a significant relationship between the management of ethical issues in AI systems and employee trust in AI inside the workplace. The estimate of 0.217 and C.R. of 3.722, along by a very significant p-value, suggest that when firms proactively address ethical concerns associated with AI, workers are more inclined to trust these systems. This underscores the significance of ethical frameworks and transparent AI techniques in fostering a reliable work environment.



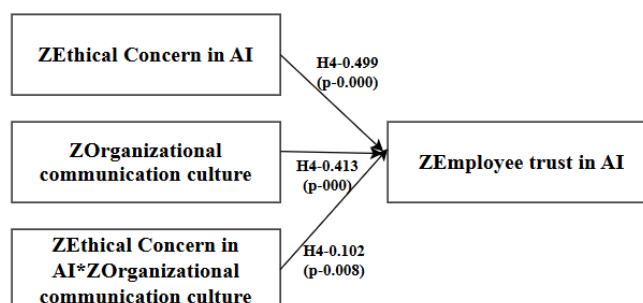
- **H3: Employee perceived usefulness of AI upskilling mediates the relationship between AI-driven workforce upskilling programs and employment sustainability in AI-integrated industries.**

A mediation study verifies that the employee's perceived utility of AI strongly mediates the relationship between AI-driven workforce upskilling initiatives and employment sustainability. The relationship between upskilling programs and perceived usefulness is strong, with an estimate of 0.745 (C.R. = 21.825), whereas the relationship between perceived usefulness and employment sustainability has an estimate of 0.666 (C.R. = 14.787). Despite the direct relationship between upskilling programs and employment sustainability decreasing to 0.18 (C.R. = 3.986), it retains significance, suggesting some mediation. This indicates that workers' conviction in the practical benefits of AI upskilling improves the efficacy of these programs in fostering employment sustainability.



- **H4: Organizational communication culture moderates the relationship between addressing ethical concerns in AI systems and employee trust in AI in the workplace.**

The moderation analysis supports the hypothesis that the Organizational communication culture influences the association between the management of ethical problems in AI systems and employee confidence in AI. The interaction term (Z Ethical Concerns in AI * Z Organizational Communication Culture) is significant, with an estimate of 0.102 and a critical ratio of 2.654 ($p = 0.008$), so validating the moderating impact. Furthermore, both ethical considerations (estimate = 0.499) and communication culture (estimate = 0.413) independently demonstrate strong positive correlations with employee confidence in AI. The results indicate that a strong communication culture inside companies could increase the beneficial effects of ethical AI practices on employee trust.



5 DISCUSSION

The study investigates the influence of AI-driven workforce upskilling, ethical concerns in AI, and organizational communication culture on employment sustainability and employee trust in AI within AI-integrated industries. The research highlights key relationships and insights through several hypotheses, backed by robust data analysis. Firstly,

Hypothesis 1 explores the link between AI-driven workforce upskilling programs and employment sustainability, revealing a strong positive correlation with a high estimate value of 0.74 and a critical ratio (C.R.) of 12.216, both indicating that upskilling significantly contributes to long-term job security in AI sectors. This suggests that organizations investing in AI-centric training programs help employees adapt to the evolving demands of the AI-integrated workplace, enhancing their sustainability within the job market. Secondly, Hypothesis 2 examines the relationship between ethical concerns in AI systems and employee trust. The results indicate a moderate but statistically significant positive relationship (estimate = 0.217, C.R. = 3.722). This emphasizes that addressing ethical issues in AI fosters trust among employees, which is essential for successful AI implementation. Ethical practices are therefore a critical component in building a transparent and trustworthy AI environment in organizations. Hypothesis 3 delves into the mediating role of employees' perceived usefulness of AI upskilling in the relationship between upskilling programs and employment sustainability. The analysis finds a strong mediation effect, with the perceived usefulness of AI upskilling significantly enhancing the impact of such programs on employment sustainability (estimate = 0.745, C.R. = 21.825). This indicates that when employees believe in the practical benefits of AI training, they are more likely to perceive it as contributing to their long-term job security. Lastly, Hypothesis 4 investigates the moderating role of organizational communication culture in the relationship between ethical AI concerns and employee trust. The findings show that a strong communication culture in organizations amplifies the positive effect of ethical AI practices on employee trust (estimate = 0.102, C.R. = 2.654). This highlights the importance of fostering open and supportive communication environments to enhance employee confidence in AI systems. The study also offers insights into the demographic mix of respondents, showing a balanced gender distribution and a mature workforce, with the majority aged between 35 and 54 years. Most participants hold undergraduate or postgraduate qualifications, and their diverse work experience levels suggest a well-rounded understanding of AI's impact in the workplace. The data on mean scores across key variables indicates a generally favorable view of AI-driven initiatives and ethical practices, with ethical concerns in AI receiving the highest ratings. In conclusion, the study underscores the importance of AI upskilling, ethical considerations, and strong communication cultures in shaping employment sustainability and employee trust in AI in the workplace. The findings support the implementation of AI-driven programs and ethical frameworks as key drivers of a sustainable and trustworthy AI-integrated work environment.

6 CONCLUSION

This study offers substantial empirical data underscoring the essential significance of AI-driven initiatives in influencing contemporary workplace dynamics. It primarily affirms that AI-driven workforce upskilling initiatives substantially enhance job sustainability in AI-integrated sectors. Organizations that engage in developing AI-related capabilities among their workers enhance the ongoing relevance and job security of their staff. Moreover, ethical issues related to AI systems significantly affect employee trust. When businesses confront ethical challenges with transparency, it enhances employee trust in these processes. The perceived utility of AI upskilling mediates the association between upskilling efforts and job sustainability, highlighting that workers' conviction in the practical worth of these programs amplifies their effectiveness. The company communication culture serves as a moderating factor, amplifying the beneficial impact of ethical AI practices on employee trust. An open, transparent, and inclusive culture strengthens workers' confidence in the integration and management of AI. The study results highlight the interrelation of technical adoption, ethical governance, employee perception, and organizational culture in promoting a sustainable and reliable AI-driven workplace. These findings are crucial for decision-makers seeking to adopt AI effectively and ethically.

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