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Constructive Debate: Is It Employee Turnover or Displacement by Artificial Intelligence?

Ishaq Ibrahim[a]* , Kalsom Ali[b]
[a,b]Senior lecturer in faculty of leadership and management at Universiti Sains Islam Malaysia, Nilai 81700, Malaysia.

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A B S T R A C T

This study aims to review the previous research related to the influence of artificial intelligence usage on employee turnover in the different industries. Reviewing the paper's findings and results such sum to be compared or presented at the same paper for clear indications and statistics as gaps to be analyzed in the future research. This study employed action research method to emphasize the influence of AI usage on the turnover rates all over the world and in different industries. Deeper understanding and discussion through the action research will enrich the theoretical frame model and facilitate structural models to be adopted by the industries to be implemented as a practical working strategy. The findings of the research reported the diversity of the influence of AI usage in the different industries, as AI create job vacancies more than job displacement in healthcare and education industries. Meanwhile, AI usage displaces jobs more than creating jobs in manufacturing and retail industries.

الملخص

تهدف هذه الدراسة إلى مراجعة الأبحاث السابقة المتعلقة بتأثير استخدام الذكاء الاصطناعي على معدل دوران الموظفين في الصناعات المختلفة. ومراجعة نتائج البحث ونتائجه مثل المبلغ ليتم مقارنتها أو تقديمها في نفس الورقة للحصول على مؤشرات وإحصاءات واضحة مثل الفجوات التي سيتم تحليلها في البحوث المستقبلية. وقد استخدمت هذه الدراسة أسلوب البحث العملي للتأكيد على تأثير استخدام الذكاء الاصطناعي على معدلات دوران الموظفين في جميع أنحاء العالم وفي الصناعات المختلفة. إن الفهم والمناقشة العميقة من خلال البحث العملي سيثري نموذج الإطار النظري ويسهل اعتماد النماذج الهيكلية من قبل الصناعات لتنفيذها كاستراتيجية عمل عملية. أفادت نتائج البحث بتنوع تأثير استخدام الذكاء الاصطناعي في الصناعات المختلفة، حيث يخلق الذكاء الاصطناعي وظائف شاغرة أكثر من إزاحة الوظائف في قطاعي الرعاية الصحية والتعليم. بينما يؤدي استخدام الذكاء الاصطناعي إلى إزاحة الوظائف أكثر من خلق فرص العمل في صناعات التصنيع والتجزئة.

الكلمات الدالة:
دوران الموظفين، الاحتفاظ بالموظفين، دراسة سرديه، التنبؤات، العواقب

JEL Classification: *C63, I10, I11, C61, & D83.*

* Corresponding author.
E-mail address: ishaq@usim.edu.my
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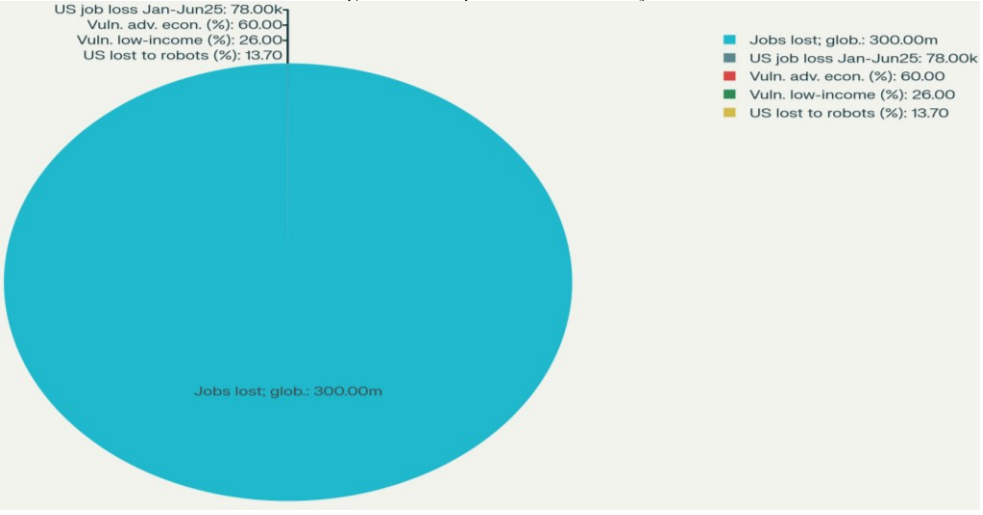
1. Introduction

The rise of Artificial Intelligence (AI) is profoundly reshaping the landscape of employment, igniting considerable debate on whether workforce changes are primarily driven by traditional employee turnover or by displacement resulting directly from AI technologies. Employee turnover, defined as the voluntary or involuntary departure of workers from an organization, has long been recognized as a costly challenge affecting organizational performance, morale, and retention strategies (Almadaat, & Ibrahim, 2021). In contrast, AI-induced displacement refers to the replacement or significant transformation of job roles due to automation and intelligent systems, potentially rendering certain positions obsolete while simultaneously creating demand for new, highly skilled roles (Zirar, Ali, & Islam, 2023). Background research highlights that AI is increasingly used not only to predict and reduce employee turnover by enhancing engagement and personalizing career development but also as a disruptive force leading to job displacement, particularly in repetitive and routine tasks across industries such as manufacturing, finance, and services (Jacobs, 2025; Ibrahim, Alsuraihi, & Al-zaqeba, 2025). While AI-powered predictive analytics help organizations proactively manage retention risks, AI's automation capabilities raise concerns about job security and the erosion of professional knowledge, which can trigger anxiety and turnover intentions among employees (Alzahmi & Ibrahim, 2025). Furthermore, uneven adoption of AI within workplaces creates challenges in workforce retention, splitting employees into AI "superusers" who experience productivity gains and those left behind, exacerbating disparities in skills and opportunities (Ibrahim, et al., 2023a; Ibrahim, 2021). Previous researches reported a very critical metrics about the AI impacting turnover rates globally as presented in the figure below.

Figure 1. AI Impact on Jobs Globally



Source: Developed by researcher

The critical research gap lies in disentangling these intertwined phenomena: understanding to what extent workforce reductions or changes stem from voluntary turnover, influenced by factors such as career stagnation and job dissatisfaction, versus involuntary displacement induced by AI implementation. Existing studies often examine AI's role in either turnover prediction or job displacement independently, but few systematically explore their interaction or the broader socio-economic implications, such as income inequality, workforce skill transitions, and policy responses. Addressing this gap is essential for designing balanced human resource strategies and public policies that mitigate adverse impacts while harnessing AI's potential to augment rather than replace human labour. This inquiry aims to bridge this gap by critically analysing the distinctions and overlaps between employee turnover and AI-driven displacement, providing a nuanced understanding of how AI transforms labour markets and organizational dynamics. Through a comprehensive review of current perceptions and emerging trends, this research will shed light on how organizations can strategically manage both phenomena to foster a resilient, adaptable, and inclusive workforce.

2. Literature Review

The debate surrounding whether employee turnover is primarily driven by automation and AI or a natural market evolution presents a multifaceted challenge. Evidence indicates that while AI and automation are reshaping job roles, they may not necessarily lead to mass unemployment but rather a transformation of the labor landscape. Research indicates that AI and automation lead to significant changes in job roles, particularly in industries such as manufacturing and services, where traditional job functions are increasingly supplanted by automated systems (Mabungela, 2023; (Sultana et al., 2024; . For instance, organizations are integrating AI to enhance operational efficiencies and decision-making processes, which ultimately transform employment requirements (Mossavar-Rahmani & Zohuri, 2024). However, this technological shift does raise valid concerns about worker displacement; according to Hossain et al., the advance of AI largely contributes to job insecurity by encroaching upon routine tasks previously performed by human workers, thereby fostering anxiety among employees regarding the future of their roles (Hossain et al., 2025).

Despite these concerns, multiple studies demonstrate that the introduction of AI may not uniformly equal job loss but rather results in a reevaluation of workforce roles. Dahlin's work suggests that exposure to advanced technologies like AI could facilitate a "reshuffle" rather than outright loss of jobs, as new roles associated with AI implementation emerge, particularly in cognitive and non-routine occupations (Dahlin, 2024). Furthermore, Sultana et al. highlight the opportunity for the development of high-skilled jobs in technology-driven productivity sectors as a counterbalance to displacement (Sultana et al., 2024).

The anxiety that accompanies technological change often alters employee behavior, prompting a shift in knowledge-sharing attitudes in the workplace, indicating a broad-reaching psychological impact of AI on the workforce (Gandía et al., 2024). This perceived threat may provoke defensive behaviors such as knowledge hoarding among employees fearing obsolescence, which further complicates the dynamics of employee engagement and business productivity (Gandía et al., 2024). Additionally, the response of organizations to these fears is crucial; deploying targeted strategies that focus on reskilling and mental health support may effectively mitigate employee concerns about displacement, as suggested by Kaaria's research (Kaaria, 2024). This calls for a balanced approach where technological advancement coexists with significant human resource initiatives aimed at employee welfare. Another critical factor in this debate is the evolution of skill requirements as automation and AI become more prevalent. Murphy points out that the nature of work is undergoing profound changes, necessitating a workforce adept in emerging technologies and soft skills (Murphy, 2023). The dual effects of automation, where some may experience improvement in their job satisfaction through enhanced capabilities, while others face stresses related to skill mismatches, further complicate this landscape (Chen & Li, 2024). The skilled labor market may expand in data analysis, AI engineering, and digital security, which contrasts starkly with the reduction of routine labor opportunities, necessitating a concerted effort in investing in employee education and skills transformation (Sultana et al., 2024; Costa et al., 2024).

2.1 Understanding Employee Turnover

This section reviews foundational theories and empirical studies on employee turnover, focusing on voluntary and involuntary departures from organizations. It covers the key organizational, individual, and environmental factors influencing turnover intentions and behaviours, such as job satisfaction, organizational culture, compensation, management practices, role clarity, and career opportunities (Wang & Lu, 2025). Additionally, it includes a review of the costs and consequences of turnover for organizations, including productivity loss and replacement expenses (Murugesan, et al., 2023). Researchers underscores the complexity of turnover drivers and the need for nuanced approaches to retention strategies (Farrell, 2023).

2.2 Artificial Intelligence and the Workforce: Automation and Displacement

This subsection examines the growing body of literature on AI's impact on job displacement through automation and task substitution. It highlights how AI technologies, particularly in repetitive and predictable

tasks, are transforming employment landscapes across industries. Studies discuss mechanisms of displacement, including automation of routine jobs, changes in skills requirements, and the dual role of AI in augmenting human work versus replacing certain roles (Aaker, et al., 2020; Ibrahim, et al., 2021). The varying estimates of displacement effects and the complexities in tracking AI's impact on employment are also reviewed (Ibrahim, et al., 2023b).

2.3 The Interplay Between AI and Employee Turnover

The focus is on research exploring how AI adoption influences voluntary employee turnover. AI impacts not only job displacement but also organizational dynamics, employee engagement, and work satisfaction, which in turn affect turnover decisions (Yanan, 2023). Some studies highlight AI-powered HR tools that predict and reduce turnover by enhancing retention efforts, while others note that AI-driven changes can create anxiety, skill gaps, and disparities among employees, potentially increasing turnover intentions (Bakir, et al., 2025).

2.4 Organizational and Policy Responses to AI-Driven Change

This section synthesizes findings on how organizations and policymakers are responding to the challenges posed by AI-related workforce transformation. It includes discussions on workforce reskilling, ethical AI implementation, organizational culture's role in mitigating turnover, and policy measures aimed at balancing AI-driven displacement with job creation (Ibrahim, et al., 2023c; Mansour, et al., 2024). Emphasis is placed on holistic approaches that align human resource management, technology adoption, and social sustainability for a resilient labour market (Ibrahim, & Eitah, 2025). Despite extensive research on both employee turnover and AI-driven displacement independently, few studies systematically explore their interaction (Ibrahim, & Ali, 2021). This subsection identifies gaps in understanding the relative contributions of turnover versus displacement, the long-term socio-economic impacts, and the nuanced effects of AI on diverse worker segments. It highlights the need for integrative, interdisciplinary research methodologies and data to better inform strategies for managing workforce transitions in the AI era. This structured literature review will provide a comprehensive background for your research, clarifying existing knowledge and framing the research gap your study aims to address. If you would like, I can also help draft each sub-section in detail.

3. Methodology

This study adopts an action research methodology to constructively debates employee turnover and displacement by artificial intelligence (AI) in organizational contexts. Action research is particularly suitable for this investigation as it allows for an iterative, participatory approach in which researchers understand and address real-world challenges (O'Brien, 1998; Norton, 2018). The methodology emphasizes both practical problem-solving and the generation of theoretical insights, aligning well with the study's dual aim of fostering critical discussion and understanding workforce trends influenced by AI. Discussions, consultations and conversations conducted with HR professionals, managers, and employees across selected organizations (Clark, et al., 2020) is essential to understand current perceptions of AI's role in workforce changes. This data will inform the design of structured debate sessions that aim to distinguish between voluntary employee turnover and involuntary displacement due to AI integration. The debates will be guided using constructive argumentation techniques based on principles from pragma-dialectics and deliberative dialogue, ensuring that discussions are respectful, evidence-based, and solution-oriented. The final reflecting phase will involve the outcomes of the debates to assess how they influenced organizational understanding and decision-making regarding AI and workforce transitions.

4. Discussion

The title addresses a critical and complex issue facing modern labor markets and organizations amid rapid technological change. The interplay between traditional employee turnover and AI-driven displacement is nuanced, with each phenomenon influenced by overlapping but distinct factors (Ibrahim, & Alzubi, 2024).

Below is an extensive, well-structured argument exploring this topic, supported by relevant data tables and figures. In term of distinguishing employee turnover from ai-driven displacement, employee turnover traditionally refers to the voluntary or involuntary exit of employees from an organization (Chuang, Chiang, & Lin, 2025). This process is influenced by job satisfaction, organizational culture, compensation, managerial practices, career opportunities, and personal factors. Turnover incurs significant costs, including recruitment, training, lost productivity, and disruption of team dynamics (Ibrahim, et al., 2024). Displacement by Artificial Intelligence (AI) represents job losses or transformations directly caused by automation and AI technologies replacing human tasks (Basnet, 2024).

Unlike turnover driven largely by personal or organizational conditions, displacement reflects structural changes in the labor market certain roles become obsolete due to AI capabilities, especially routine, manual, or predictable tasks (Ajit, 2016). However, AI can also create new roles requiring advanced skills, leading to workforce reallocation rather than simple job loss.

Table 1. Key Ai Job Impact Metrics

Key AI Job Impact Metrics	Value	Unit
Jobs potentially lost to AI globally	300,000,000	Jobs
Percentage of jobs vulnerable to AI in advanced economies	60	%
Percentage of jobs vulnerable to AI in low-income countries	26	%
Estimated US job losses linked to AI Jan-June 2025	77,999	Jobs
Percentage of US workers reporting job loss to robots	13.7	%

Source: Developed by researcher

As the table above presents there is high number of jobs expected to disappear, 3 hundred million jobs will be reflected on the society unless new jobs and tasks to be figured out with the AI existence. A percent reach to 60 of the vacancies and jobs in the developed countries are absolutely could be replaced by AI. In the third world countries only 26% of the jobs expected to be replaced. In united states of America 77,999 jobs been lost and displaced by AI in 2025 with 13.7% felt the danger of AI displacement for the employees in USA. These reports are very important to be highlighted and elaborated very well to strategies the policies and plans of the individuals, policy makers and nations. Furthermore, the argument is organizations increasingly deploy AI-powered HR solutions to predict turnover risks and enhance employee retention through personalized onboarding, engagement tools, and workload optimization (Azeem, et al., 2024). Predictive analytics identify employees at risk of leaving early, enabling proactive interventions such as career development opportunities and role adjustments, which enhance job satisfaction and loyalty (Peiwen, Sulaiman, & Zhenglong, 2025). On the other hand, AI and automation systems replace jobs through advanced robotics, intelligent process automation, and generative AI applications. This displacement disproportionately affects manufacturing, administrative support, and routine clerical jobs (Wang, & Lu, 2025). Workers in less-skilled roles or without adequate retraining opportunities face the highest risk of involuntary displacement (Nazareno, & Schiff, 2021).

The data show manufacturing and retail as industries facing higher job displacements due to AI, whereas healthcare and education experience substantial AI-driven job creation, emphasizing AI's role in labor market transformation rather than unidirectional job loss (Al-Ayed, 2025; Nazareno, & Schiff, 2021).

Although AI impacts both employee turnover and displacement, existing research often treats these phenomena separately. The critical gap is understanding the degree to which observed workforce changes are voluntary (turnover due to dissatisfaction, career moves) versus involuntary (displacement due to AI automation). Strategies to reduce turnover focus on engagement, career development, and culture. Strategies to address displacement require reskilling, policy interventions, and workforce planning. Overlooking displacement risks misinterpreting attrition data and underestimating structural labour market changes. AI-driven displacement disproportionately affects lower-skilled workers and entry-level jobs, riskier in advancing automation phases. Meanwhile, AI's augmentation effects tend to benefit more educated, higher-skilled employees, potentially exacerbating workforce polarization and income inequality. For example, 14% of employees globally may be forced to change careers by 2030 due to AI, demonstrating significant workforce disruption and the need for active reskilling and transition support.

Recognizing the intertwined yet distinct nature of turnover and displacement by AI is fundamental to fostering labour market resilience amid ongoing technological evolution. As the right application of AI in the industries might be reflected positively on the employees and the industries as stated below.

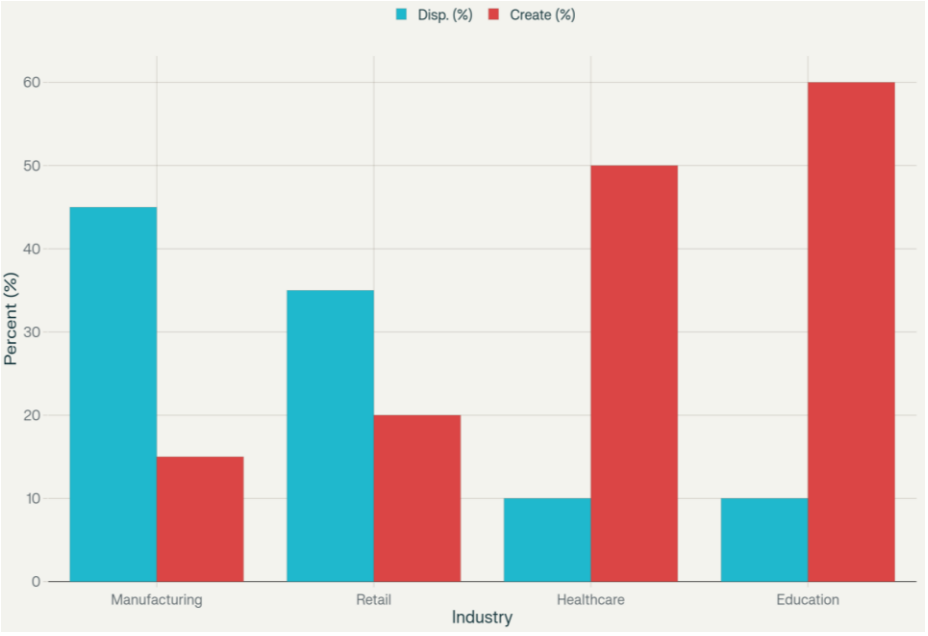
Table 2. AI & Turnover

AI Application	Effect on Turnover
Predictive analytics for turnover	Proactive retention interventions
Personalized onboarding	Faster acclimatization and job fit
Workload optimization	Reduced burnout and increased satisfaction
Employee engagement enhancement	Increased engagement & reduced turnover

Source: Developed by researcher

The table above presents AI usage as a tool to predict and analyze the employees in the industries which will be the guide toward retention strategies development. While in the individual perception AI helps the employees to get adapt to the new working environments and find the exact fit job and tasks with their abilities. Accordingly, these points will affect the burnout percent and improve the employee's satisfaction regarding their workload, achievements, work-life balance and safe job. The diversity of AI influences the employees based on continents and industries reported in the previous research as shown in the table below based on the industries manufacturing, retail, healthcare and education. AI use in 2025 affords 15% job vacancies in manufacturing industry, 20% job vacancies in retail industry, 50% job vacancies in healthcare industry, 60% job vacancies in education industry. On the other hand, 45% of the job displaced by AI in manufacturing, 35% job vacancies displaced by AI in retail industry, 10% job vacancies were displaced by AI in healthcare industry, 10% job vacancies displaced by AI in education industry.

Figure 1. AI Job Change by Industry



Source: Developed by researcher

In summary, in the both industries manufacturing and retail industries AI displaced the employees with a very high rate with less job creation. While the healthcare and education industries Ai offered several job vacancies more than displacement. There was a very impressive variable leading to retention amongst employees in the USA, which is artificial intelligence, indicating AI is a variable demanded to retention variables due to several reasons. The predictors could be according to the financial condition, level of life that people living in a particular continent and the ambitions and targets of the continent.

5. Conclusion and Recommendations

This study concluded with confirming the existence of the argument and different perceptions amongst the scholars. The research finds out positive as well as a negative impact of AI usage based on the industries mainly. The manufacturing and retail industries scored higher job displacement more than creating jobs, while in healthcare and education AI usage created jobs more than job displacement, particularly in roles requiring human-AI collaboration like diagnostic support specialists and adaptive learning designers. Additional factors brought by AI where it reduces turnover by enhancing job fit and engagement through intelligent HR systems, while simultaneously replacing routine jobs and necessitating career transitions toward more creative and supervisory roles. Organizations and policymakers are recommended to develop nuanced, data-driven strategies that simultaneously leverage AI's predictive capabilities for retention while implementing ethical transition programs for displaced workers. Three critical action points emerge: (1) sector-specific reskilling initiatives prioritizing manufacturing and retail workers, (2) AI-augmented job redesign in healthcare/education to maximize employment opportunities, and (3) establishment of AI impact monitoring frameworks to track workforce changes in real-time. Thus, the industries must be investigated separately through the lens of sustainable AI implementation, where technological progress is balanced with workforce preservation. Future research should particularly examine emerging hybrid job categories at the human-AI interface, as well as policy models that incentivize job-creating AI applications. Finally, more studies would facilitate strategies to be adapted toward creating more jobs by inclusion of AI in these industries, with special attention to developing standardized metrics for measuring net job impact across sectors, ultimately solving the displacement challenge through targeted, evidence-based interventions.

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