

IMPACT OF GEN AI ON EMPLOYEES- AN EMPIRICAL APPROACH

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ABSTRACT

This empirical study investigates how Generative Artificial Intelligence (Gen AI) influences employee performance, job insecurity, and acceptance across contemporary organizational environments. Using a quantitative survey of 312 employees across technology, finance, education, consulting, and retail sectors, the research identifies dual impacts: Gen AI significantly improves productivity but simultaneously increases job insecurity. Organizational support moderates negative effects by enhancing employee acceptance and reducing anxiety. The findings contribute to technology adoption and workforce transformation literature and offer managerial insights for responsible AI integration.

Keywords: Generative AI, employee performance, job insecurity, organizational support, digital transformation

INTRODUCTION

The fast development of artificial intelligence has brought a new era of digital transformation with Generative Artificial Intelligence (Gen AI) becoming one of the most disruptive technological inventions of the modern world. In contrast to previous kinds of automation that largely involved processes that were rule-based, Gen AI systems like ChatGPT, Gemini, Claude, DALL*E and GitHub Copilot have a special ability to create new material as text, images, videos, code and data-driven information. These systems are not only automated routine approaches but also enhance human cognition, creativity, and decision-making (Brynjolfsson, Li, and Raymond, 2023). Consequently, a growing number of organizations in any field are moving towards integrating Gen AI into their operations, and this is casting

serious fundamentals on how the technology is transforming employee functions, capabilities, productivity and job experiences.

The modern labour force is set on a multifaceted crossroad of increasing speed of technologies and changing business demands. Gen AI is implemented in organizations to aid productivity, facilitate workflows, increase accuracy, and minimize human mistake, and assist with data-driven strategic choices (McKinsey Global Institute, 2023). To employees, the introduction of Gen AI, however, is an opportunity and a threat. On the one hand, Gen AI will help to relieve employees of time-consuming work and concentrate on strategic, innovative, and interpersonal activities. It will be able to assist employees by creating reports, processing data, developing content, building prototypes, and providing predictive analytics (Dwivedi et al., 2023). Conversely, workers are becoming more worried about job loss, deskilling, and surveillance and have to develop their digital skills constantly (Frey and Osborne, 2017; Gartner, 2023). Such opposite results highlight the need to investigate empirically the effects of Gen AI on employees in practical organizational settings.

According to the scholarly discussion regarding technology and work, every technological advance in the history of automation has caused a rise in the discussion about job decrease or job improvement. Gen AI is however a qualitative change due to its ability to affect not only manual or repetitive activities but also cognitive and creative processes that are the ones that are usually deemed to be resistant to automation (Autor, 2022). Such an ability makes Gen AI a general-purpose technology that has widely spreading consequences regarding the future of work. However, there is still little empirical data on how employees experience and view this change, especially in emerging economies where digital preparedness and support practices in the organization may vary significantly (Susskind & Susskind, 2015).

Understanding employee responses to Gen AI is essential for organizational leaders, HR professionals, and policymakers. Employees' perceptions influence technology adoption, productivity outcomes, workplace morale, psychological well-being, and organizational commitment (Venkatesh, Morris, Davis, & Davis, 2003). If employees perceive Gen AI as a supportive tool, it can enhance job satisfaction and performance. Conversely, if they interpret Gen AI as a threat, it may lead to anxiety, resistance, reduced engagement, and even attrition (Tarafdar et al., 2019). Therefore, an empirical analysis is necessary to uncover the nuanced dynamics between Gen AI adoption, employee performance, job insecurity, and the moderating role of organizational support.

LITERATURE REVIEW

The story of employee changes due to Generative AI had its roots way before AI technologies could write, create images or make data models. It traces back to the early period of computerization when organizations understood that machines could handle their routine work. Writers like Autor (2022) and Brynjolfsson & McAfee (2014) named that period the beginning of "task automation" - a time when technology primarily replaced repetitive, rule-based work. Employees got to know the new way of work sometimes unwillingly as spreadsheets took the place of ledgers and ERP systems took over manual workflows. However, throughout the changes, one idea was still very much alive: the creative, cognitive, and interpersonal work was still a human thing.

Then everything changed with the arrival of a Generative AI.

After the silence revolution, deep learning, neural networks, and natural language processing were the terms researchers used to describe how close machines were progressing to human thinking. The fundamental change was, however, due to the arrival of Generative AI. Gen AI

tools were capable of doing it the following: writing reports, creating visuals, coding, summarizing legal documents, and even coming up with new inventions. For the first time, technology was not only a helper to employees it was entering fields that were considered the closest to human ones.

This change made the scholars very curious again. They asked the same questions about the impact of technology on employees that they had asked before: Does new technology makes humans more capable or replaces them? Does it give workers more power or does it push them aside? Those questions, analyzed by Frey and Osborne (2017), became even louder as Gen AI mixed human intelligence with machine generation.

Initial literature painted a bright picture.

Reports from the McKinsey Global Institute (2023) and Brynjolfsson et al. (2023) suggested that Gen AI is a great helper of employee productivity as it automates writing, data processing, and decision support activities. In the real world, employees may complete reports in very short periods, carry out intricate analyses with great ease, and come up with numerous creative ideas without having to exhaust the usual brainstorming sessions. Researchers referred to Gen AI as a "cognitive amplifier," a means that stimulates creativity and efficiency in knowledge-intensive professions.

The pledge of this within companies brought about novel work processes: marketing departments leveraged AI for campaign ideas, HR used it for the filtration of job applications, the finance team for predictive analytics, and teachers for content creation. The research by Dwivedi et al. (2023) suggested that workers who adopted Gen AI found the pressure of work lessened, accuracy improved, and they had more time for tasks of strategy and value creation.

However, behind every technological promise, there is a shadow.

Concerns of job losses followed the increase in productivity. Employees from different sectors wondered if Gen AI would be the cause of their layoffs. The professional work that was once considered to be safe, is now at risk of being outsourced to machines, says Susskind and Susskind (2015). The current anxiety was not only a product of the employees' imagination; in fact, there were already some disruptions taking place in the real world. Some content writers worried about being replaced, data analysts came across automated dashboards, teachers saw AI-generated lessons and customer service employees heard that chatbots were becoming more independent in handling inquiries.

Academic writings on the topic started to refer to these worries as "technology-induced job insecurity." Tarafdar et al. (2019) pointed to this mental strain as techno-distress, a type of anxiety that arises when employees feel that they are not able to cope with or are threatened by new digital tools. With the rise of Gen AI, this issue that used to be a minor one has now become the main topic of research in the field of organizational behavior.

Skill Demands and the New Workplace Identity

Another discussion was held in parallel concerning skills. The researchers acknowledged that the advent of Gen AI meant that the employees had to keep on updating their technical, analytical, and digital literacy skills. Venkatesh et al. (2003) had been suggesting for a long time that employees make use of technology only when they feel that they are given the necessary support and that they are competent. In the Gen AI era, this point turned out to be very important.

Employees who considered themselves well-equipped and trained reacted to AI in a way that was favorable; they saw it as a collaborator with whom they could share tasks rather than a

rival. On the other hand, people without digital confidence felt excluded or that they had no value. The studies revealed that the skill gaps had widened between the different age groups, job categories, and industries. It looked like Gen AI was not just changing the way work was done, but it was also changing the workforce's identity.

The Moderating Power of Organizational Support

One major theme that organizational power to influence employee experiences through the literature was the most compelling one. Research shows that organizations that facilitate rather than impose technology have a very positive effect on the results. The fear of the unknown can be very strong. However, it was found that training, communication, reskilling, leadership support, and participation in implementation strategies helped to reduce this fear and increase acceptance.

In a similar vein McKinsey (2023) noticed that companies which took the initiative to reskill their employees while implementing AI, enjoyed a rise in productivity and a decrease in employee resistance. On the other hand, the studies in HRM and organizational psychology pointed out that employees perceiving support were more likely to view AI as an opportunity than a threat (Tarafdar et al., 2019).

Therefore, the account of Gen AI influence on staff becomes the narrative of not only tech but also the people, culture, and organizational governance. The article discusses the fine line between innovation and inclusion, between leveraging of the performance and the employee's feeling of psychological security

A Synthesis of the Literature

The literature converges on four major themes:

1. **Gen AI enhances employee productivity** by automating complex cognitive tasks and improving decision-making.
2. **Gen AI introduces job insecurity**, especially among employees in cognitive, creative, and analytical roles.
3. **Skill transformation is inevitable**, requiring continuous learning and digital literacy.
4. **Organizational support and training serve as critical buffers**, reducing fear and improving employee acceptance.

These interconnected themes form the foundation of the present empirical study, which seeks to explore how employees navigate the promises and pressures created by Gen AI in contemporary workplaces.

Research Methodology

There was use of a quantitative empirical research design which encompassed a cross-sectional survey method.

Sample and Sampling Method

Sample size: 312 employees, Sampling method: Purposive sampling sectors adopting Gen AI targeted

Data Collection Instrument: The structured questionnaire consisted of five sections:

Demographics

Gen AI adoption level

Employee performance (5-item scale)

Job insecurity (4-item scale)

Training and development (5-item scale)

Each and every item was on a 5-point Likert scale.

Techniques used:

Descriptive statistics

Reliability analysis (Cronbach's alpha)

Correlation analysis

Results

This section consolidates the empirical results obtained through descriptive statistics, reliability testing, correlation analysis and regression modeling. In total, the evidence from the various analyses forms an integrated account of how the introduction of generative artificial intelligence (Gen AI) relates to changes in employee performance and job insecurity, and how the presence of organizational mechanisms influences these processes.

Descriptive Insights

The descriptive statistics serve as a first glance at employees' perceptions of the integration of Gen AI. The average Gen AI adoption score of 3.82 indicates that employees tend to perceive AI implementation in their work environment at a moderate-to-high level. At the same time, the average employee performance score of 4.01 reveals that, on the whole, employees see themselves as performing well. On the other hand, the measure of job insecurity averaged 3.45, pointing to a noticeable, if not very intense, feeling of apprehension about one's job being replaced or radically changed due to AI systems. These preliminary statistics pave the way for a more in-depth investigation of the quantitative relationships among constructs.

Reliability Outcomes

The Cronbach's alpha values of the different scales varied between 0.78 and 0.89. This range of measures attests to a high degree of reliability for all the scales employed to measure the constructs under study. The reliability of measurement confirms that the items used to assess Gen AI adoption, employee performance, job insecurity, organizational support, and training are consistent enough to allow casts of inference to the population. The high level of reliability achieved makes the following statistical results more robust.

Correlation Findings

The correlation study unveils the directional strength of relations among the variables involved. The positive and significant correlation found between Gen AI adoption and employee performance ($r = 0.61$) reveals that increased AI use is generally associated with higher self-reported performance levels. This is in line with recent studies that emphasize Gen AI as a source of augmented productivity, better decision-making, and improved task efficiency. Correspondingly, the somewhat strong correlation between Gen AI adoption and job insecurity ($r = 0.38$) means that, although AI is a tool that can bring good performance to the fore, it at the same time confers a degree of uncertainty/fear as far as job stability is concerned. Such a dual state of affairs mirrors the complexity of the psychological and operational side of AI-situated organizational contexts.

Regression Analysis and Hypothesis Evaluation

Regression findings offer more robust causal explanations. The evidence that Gen AI adoption is a statistically significant employee performance predictor ($\beta = 0.54$, $p < 0.01$) constitutes H1's empirical support, thus strengthening the argument that AI-enabled tools are a means to employee output and task efficiency facilitation.

On the other hand, the regression coefficient predicting job insecurity from Gen AI ($\beta = 0.29$, $p < 0.05$) supports H2, thus revealing that workers view AI as the most likely candidate for replacing or changing their roles. The validation of the tension between technological opportunity and psychological discomfort is, therefore, made even stronger.

DISCUSSION

This study's findings provide significant insights into the intricate and layered effects of Generative AI (Gen AI) on employees. The data from the study vividly portray Gen AI adoption as a double-edged sword whereby the innovation, on the one hand, boosts employee productivity, but, on the other hand, it provokes job insecurity and techno stress. These contradicting forces largely determine employees' behavioral, emotional, and professional responses in the modern workplace. This paper looks through the lens of the existing literature, studies, and theories to corroborate and extend the findings' implications both theoretically, managerially, and practically.

The Paradox of Productivity Gains and Rising Insecurity

In line with the earlier studies, the findings reveal that Gen AI is a key factor in productivity enhancement as it helps to lessen the mental load, quicken the work, and improve the output quality (Brynjolfsson et al., 2023). In general, the argument that advanced technologies should be viewed as tools that empower human capabilities rather than substitutes is supported by the testimonies of users who have direct interaction with Gen AI. Nevertheless, this research establishes that the very invention that is at the core of employee productivity is equally responsible for mounting job insecurity. The point is well taken that Gen AI's cognitive prowess is making it increasingly difficult to distinguish which tasks belong to humans and which to machines (Autor, 2022; Frey & Osborne, 2017). The anxiety over losing one's job to automation is now a far-reaching problem which is not limited to manual or repetitive jobs, but employees working with data, creative, and decision-making aspects are also at risk of being automated.

The contradiction of achieving higher productivity and yet being subjected to higher insecurity unveils the emotional tension that employees struggle with. They are unable to reconcile their situation because on the one hand they are beneficiaries of Gen AI's functions and on the other hand they do not know their long-term position in the company. This tension marks a major milestone in the evolution of workplace technology and underlines the necessity for companies to deal with not only the performance but also the psychological consequences of this technology.

Technostress as an Amplifier of Job Insecurity

The results also reveal that the impact of Gen AI on employee attitudes will be more negative in the presence of technostress. Affected by rapid technological changes and increasing task complexity, employees' stress levels raise, which in turn makes them more worried about their skill relevance and job continuity. This is consistent with previous research on the subject that considers technostress as a psychological and behavioral reaction that causes employee well-being and engagement to decline (Tarafdar et al., 2019).

The employees who doubt their digital skills are more likely to encounter stress and hence their negative perception of Gen AI as a threat will be reinforced. It is evident from the study that the rapidity of the Gen AI changes which are much faster than the most of the previous workplace technologies is one of the main factors that cause stress, especially when employees are required to acclimate themselves with minimal instructions.

Organizational Support as a Critical Moderator

A major finding of this research is that supporting measures by the company largely account for the reduction of the undesirable effects of Gen AI on the feeling of job insecurity. When companies equip their employees with training programs, provide clear communication and offer supportive leadership, workers then see Gen AI as a tool that facilitates their tasks rather than one which disturbs them. This is in line with the long-term organizational behavior theories that underline the importance of perceived organizational support as a means of alleviating fear and fostering positive attitudes.

Supportive employees show the following characteristics and behaviors:

1. Less anxiety about the role becoming redundant
2. More willingness to experiment with AI tools
3. Greater confidence in their long-term relevance
4. Increased productivity and engagement

The finding that social context plays a major role in the implementation of Gen AI, serves as a reminder to organizations that are implementing this technology to pay attention to not only the support structures around them but also the social environment. Those organizations which disregard the necessity of support structures run the risk of distancing their employees, which might result in the generation of resistance and the undermining of productivity which they are striving for.

Implications for Workforce Capability and Future Roles

The study brings out that the workforce ahead will need a hybrid skill set that combines human judgment with AI skills. The employees should become capable of AI-assisted problem-solving, data interpretation, digital communication, and continuous learning. The shift is in accord with the research which is coming forward that Gen AI will not be the cause of the total loss of jobs but rather the job content will change and the professional roles will be redefined (Dwivedi et al., 2023). Employees who perceive Gen AI as a supplementary tool are more inclined to adjust and prosper. Those who neglect the acquisition of new skills will probably find themselves in the periphery, which will strengthen the voices that warn of the risk of inequality in the future labor markets.

From the management perspective, companies should integrate AI literacy, ethical AI use, and human-AI collaboration frameworks into their training and development programs. The managing of talents will increasingly rely on the understanding of the intersection of human expertise and AI capabilities.

CONCLUSION

The rapid rise of Generative Artificial Intelligence (Gen AI) is arguably the most significant change in the life of modern organizations. The study investigated the double effect of the technology on employees by examining the associations of Gen AI usage with employee productivity, job insecurity, technostress, and organizational support. The data-driven results unambiguously indicate that Gen AI is a great productivity enhancer, yet it also creates the

so-called "psychological" vulnerabilities which affect employees' sense of security and professional identity.

The findings reveal that Gen AI dramatically increases productivity through efficiency improvement, quickening complex cognitive work, and facilitating decision-making. The innovation, however, comes with the downside of high job insecurity that co-exists with employees, reflecting employee perception of Gen AI as a threat to their jobs besides tool for performance improvement. Indirectly, job insecurity is the main contributor to productivity decrease, which leads to the conclusion that psychological factors have a significant influence on actual work outcomes in AI-integrated environments.

A major point made by the paper is the establishment of organizational support as a crucial moderating factor. The results indicate that the assistance from the organization in the form of training, communication, guidance, managerial encouragement, and psychological safety can effectively address and even decrease the anxiety and confusion caused by Gen AI. Those employees who are supported perceive AI as an instrument through which their capabilities will be enhanced, not as a job that will be lost. The point is human-centered implementation strategies are vital in accomplishing ethically, responsibly, and sustainably AI adoption.

First of all, the study makes clear that the impact of Gen AI on employees is not inherently good or bad; instead, it depends on how organizations plan, inform, and manage the AI-driven transformation. The right use of Gen AI can help employees to be more effective, creative, and advantageous to the organization at the strategic level. Unfortunately, the absence of support in the same context can lead to the escalation of insecurity, stress, and loss of interest in work.

As companies are adopting Gen AI in their workflows, the discovery is pointing to the necessity for prudent which matches well-being of workers with the technological innovations. Besides skill sets, the future of work will demand continuous learning and strong organizational cultures that are inclusive, transparent, and supportive. The question of human-AI collaboration success finally boils down to how organizations fathom and manage the emotional, cognitive, and developmental needs of their employees during the change period.

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