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The Impact Of Artificial Intelligence On The Contingent Workforce: Opportunities And Challenges

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Abstract:
Artificial intelligence (AI) is developing quickly, and it can now perform a variety of tasks that humans can, if not more efficiently. Concerns regarding its effects on employment, particularly for contingent labour, are growing, nevertheless. This research looks at the opportunities and challenges AI brings to this deprived section of the workforce. The study uses thematic analysis to find patterns and insights using secondary data from scholarly publications along with a descriptive method. Results explore how AI can enhance job prospects, efficiency in talent sourcing, reduction of bias, job matching, skill development, and project management. Conversely, the findings highlight potential adverse impacts of AI, including marginalizing contingent worker groups through job displacement, creating job insecurity, raising ethical concerns, issues of surveillance and privacy, widening skill gaps, and reducing workers' bargaining power. The findings underscore the importance of proactive policy measures and strategic investments in training programs to mitigate adverse effects while maximizing the benefits of AI integration. This study contributes to the understanding of AI's dual impact on employment and provides actionable recommendations for policymakers, employers, and stakeholders in navigating the evolving labor landscape.

Keywords: Artificial Intelligence (AI), Contingent Workforce, Opportunities, Challenges.

Introduction

Since its inception, artificial intelligence (AI) has gathered significant attention from professionals and scholars (Farhan, 2023). The term "AI" was coined in the mid-1950s. According to Guan et al. (2022), McCarthy first used the phrase "artificial intelligence" in 1956 when he addressed the perceptive nature of manufactured items at his inaugural conference. However, Benbya et al. (2020) and Ruiz-Real et al. (2021) noted that Bartin Burkhalterin was the first to employ AI in a business context, as documented in his 1963 research titled "Applying Artificial Intelligence to the Pattern-Cutters Problem." Machines that mimic human intelligence are referred to as artificial intelligence (AI) (Wamba-Taguimdje et al., 2020; Lichtenthaler, 2019; Mikalef & Gupta, 2021; Enholm, 2022). According to Gruetzemacher and Whittlestone (2022), AI is the next significant general-purpose technology (GPT) and a potentially revolutionary technology with the ability to significantly impact economic development and quality of life in all areas of society.

The business landscape has experienced significant changes worldwide due to the remarkable advancements in artificial intelligence (AI) (A, 2023). Contingent labor has become a crucial component of contemporary companies (Gupta, 2023). The term "contingent employment arrangement" was first introduced by Audrey Freedman at a 1985 employment security conference to describe the conditionality associated with contingent work (Freedman, 1988). Originally, the term "contingent employment" referred to various employment activities, including contracting out, self-employment, employee leasing, part-time work, temporary labor, and work from home. Consequently, any employment agreement, except for full-time, permanent positions, is classified as contingent (Polivka & Nardone, 1989). Hence other than any work arrangements which is full-time and permanent, it will fall in the category of contingent (Polivka & Nardone, 1989). As a result, the term "contingent" pertains to various employee and employment classifications. Contingent workers are employed as a management strategy when there is an urgent and direct need for their skills. They are utilized to handle emergencies and to fill gaps in the organization caused by holidays or other circumstances (Freedman, 1988; Polivka, 1996).

The Importance of the Study

Artificial intelligence (AI) has a significant impact on the workforce. Vulnerable employee groups, such as contingent workforces, require special consideration when implementing AI policies in the workplace. Typically, contingent workers depart from the company once their current contract ends unless they are offered a new contract or a renewal, which usually mirrors previous agreements. Moreover, contingent employees often receive lower pay than full-time employees and have limited or no access to benefits. According to the U.S. Department of Labor, contingent workers are less likely to be protected by labor and employment laws. Therefore, it is essential that AI policies and regulations are grounded in human rights, data privacy, and accessibility (Susar & Aquaro, 2019). In an AI-driven environment, productivity is highly prized. Therefore, it is essential to investigate the various issues AI raises for temporary labor. These workers are frequently denied their rights as employees, despite their knowledge and abilities being utilized by firms for success. As Cheatham et al. (2019) aptly noted, artificial intelligence (AI) presents both advantages and risks. AI has the potential to disrupt a variety of industries, causing job losses and creating a divide between highly and less qualified workers globally. The current study is significant in this regard, as it identifies opportunities and challenges while suggesting ways to maintain the dignity of the contingent workforce.

Objectives of the Study

- To understand the impact of Artificial Intelligence on the Contingent Workforce
- To analyse the strategies adopted by the organizations to mitigate the adverse impacts of AI on the Contingent workforce
- To recommend effective measures to reduce the negative impact of AI on the Contingent workforce

The researcher has adopted a descriptive research methodology, analyzing existing secondary sources available from scholarly publications, including research articles and journals from e-resources. A total of 36 research studies were selected to analyze the impact of AI on the contingent workforce.

Review of Literature

India currently boasts one of the largest flexible staffing workforces globally, following China and the United States. As Indian enterprises increasingly globalize, they must make significant efforts to reduce costs while enhancing productivity and operational efficiency (Reddy & Sowjanya, 2019). The temporary workforce differentiates itself through agility and a willingness to provide innovative performance and services to organizations. These characteristics of adaptability and eagerness swiftly attract employers to contingent labor, significantly boosting organizational efficiency (Balasubramanian, 2022; Chen et al., 2019). Industry reports forecast an increase in temporary agency recruitment, and by 2025, it is anticipated that temporary workers in India will constitute approximately 10% of the country's formal sector employment (Staffing Industry Experts, 2017).

Studies have shown that AI has the capacity of a digital computer or a computer-controlled robot to carry out actions typically associated with human beings (Matonya, 2020). Ambati et al. (2020) reported that the vast field of modern artificial intelligence employs cutting-edge methods to extract knowledge from vast amounts of data. Benbya et al. (2020) highlighted findings from their study on how AI is being applied in organizations for diverse

objectives such as making processes more efficient (28% as one of the top two), enhancing existing products and services (25%), creating new products and services (23%), improving decision-making (21%), and lowering costs (20%). Although a familiar objective in AI is related to reducing human labor, this objective received the lowest number of mentions at 11%. Additionally, Ambati et al. (2020) argued that less than 10% of businesses have effectively implemented AI, with the remaining firms either not implementing AI at all or facing challenges in doing so.

Major Findings

The findings of this study are thematically analysed and summarised under two sections:

A. Impact of artificial intelligence on the contingent workforce

B. Strategies to be adopted by organisations to mitigate the adverse impacts of artificial intelligence on the contingent workforce

A. Impact of Artificial Intelligence on the Contingent Workforce

Currently, the impact of artificial intelligence (AI) on the workforce is minimal. However, as AI systems become increasingly sophisticated, they threaten to displace over 30% of the workforce, affecting occupations such as truck drivers and financial analysts. By the 2030s, experts believe that automation powered by AI will be extensively employed across a range of industries, including manufacturing, retail, warehousing, agriculture, and accommodation. Globally, this would affect approximately 800 million jobs (Melemuku, 2023). Although AI offers numerous advantages for organizations, it is crucial to acknowledge and mitigate the potential risks it poses to human labor (Farhan, 2023).

- **Fear of Losing Jobs:**

Matonya (2020) remarked on the numerous benefits that technology can bring. However, there is a prevalent fear among employees of job loss due to the introduction of computers and robotics. Cheatham et al. (2019) affirmed that AI has a dual nature, encompassing both benefits and threats. AI has the potential to disrupt a wide range of industries, creating unemployment and polarization between high- and low-skilled workers globally.

- **Breach of Privacy:**

Cheatham et al. (2019) observed that AI could mishandle data, exhibit bias during data processing, and potentially disclose private information publicly, allowing fraudsters to misuse the data. Additionally, AI can be affected by technological issues in various aspects of the operating environment.

- **Displacement of Employees:**

Jobs in manufacturing, construction, transportation, hospitality, and financial services are already being replaced by machines, resulting in the loss of employment or displacement of employees into lower-paying positions (Enholm et al., 2022; Stojkovska, 2021; Tubaro et al., 2020). Gruetzemacher & Whittlestone (2022) argued that professionals in science and technology, including AI researchers, and the public at large share concerns about job displacement. Robots are increasingly capable of replicating the mechanical elements of highly skilled work, potentially rendering certain dependent skills obsolete (Matonya, 2020). Many advanced, restricted AI systems have the capacity to replace human judgment rather than merely support it. This has historically caused economic disruptions, such as replacing industrial workers with robots or agricultural laborers with farm machinery (Melemuku, 2023).

- **Organizational Concerns About AI:**

According to Benbya et al. (2020), AI is currently seen by larger businesses as both the most significant and disruptive new technology. However, it is still in an early stage of adoption among larger enterprises and largely absent among smaller enterprises, except for technology startups. Many businesses have not yet realized financial returns on their AI investments.

- **Fully Automated Digital Industry:**

Stojkovska (2021) argued that the emergence of the digital economy in 2007 marked a significant advancement in digital technology, increasing the demand for highly skilled professionals. Without proper training and development, contingent workers may struggle to meet business requirements. Akaev et al. (2021) reported that currently, 5–10% of the economies in wealthy nations are entirely digital. The complete digital transformation of the economy is predicted to take ten to twelve years, with large-scale operations expected by the 2030s. This will result in a complete shift to a fully automated digital industry, aiming at industrial growth.

- **Creation of Underpaid Employment:**

Replacing most low-skilled service jobs with expensive, sophisticated computers is often unprofitable, as humans can perform most of these jobs. Consequently, it is reasonable to assume that a significant portion of average-skilled workers in the future will be limited to low-paying positions in the service industry, with many traditional vocations disappearing alongside technological advancements.

- **Insecurity:**

Research indicates that interactions between humans and machines might instil a sense of danger, reducing workers' motivation (Sen et al., 2022). The extensive replacement of human jobs by AI could have adverse effects on economies and customer bases, instigate social unrest among displaced workers, worsen inequality as highly skilled technology elites capture most benefits, and drive the adoption of alternative economic models (Melemuku, 2023).

B. Strategies to be Adopted by Organisations to Mitigate the Adverse Impacts of Artificial Intelligence on the Contingent Workforce

- **Monitoring the Legal Risks Associated with AI:**

Apart from staying abreast of AI advancements, it is crucial to monitor the regulatory landscape to ensure appropriate risk mitigation strategies are implemented. While AI is expected to increase global prosperity, it is important to periodically step in to ensure the advantages are optimally distributed across different professions and individuals (MBO Partners).

- **Legal Protection:**

To maintain business equilibrium and fill skill gaps, organizations and sectors often hire contingent workers to avoid regulatory requirements. However, hiring temporary labor outside legal boundaries is illegal (Balasubramanian, 2022; Benassi & Kornelakis, 2020; D'Cruz & Noronha, 2016). Aronsson (1999) argued that contingent workers, being vulnerable, should receive legal protection, as they are not directly covered by labor laws or the Industrial Disputes Act of 1947. Hence ensuring legal protection for the contingent workforce is essential.

- **Research**

Connelly & Gallagher (2004) remarked that the majority of research studies in the contingent area have focused on the organizational level, including temporary help service firms, agencies, and independent contractors; other categories of the contingent have received very little attention. Hence more researches need to be conducted on the direct impact of AI on contingent workforces. As well as the responsibilities of the third-party agency as well as the employers need to be researched.

- **Women Contingent Workforce**

Aronsson (1999) discovered that women are in a less fortunate position than males in the category of contingent workers; nonetheless, women are more found for part-time jobs than men. This is yet another research gap to investigate regarding temporary female workers and their pitiful situation.

- **Strengthening the Accountability of the Employers/Third-Party Agency**

Accountability of the employers and the third-party agency who hire the contingent workforce has to be periodically evaluated and grievances have to be handled appropriately.

- **Establishing Trust And Dialogue**

K & Shanthi, (2020) argued that while implementing new technologies, businesses need to invest time in establishing trust and dialogue with their employees to take into consideration and understand their concerns about using cutting-edge tools. Implementing such a process requires re-education, reskilling, and training. This will help to establish trust among the employees towards taking up new change mechanisms such as AI.

Recommendations to Reduce the Impact of Artificial Intelligence on the Contingent Workforce

The present descriptive study, utilizing available secondary e-resources, has revealed the need for preparedness at both the policy level and the employer's side. In light of the results, the following suggestions are put forth:

- **Reskilling and Upskilling Invest in Training Programs:** Offer training courses to temporary employees so they can acquire new skills needed in the AI-driven labor market.

- **Ongoing Learning:** Encourage a culture of continuous learning and growth to help employees maintain current skills. AI Ethics and Fairness Bias Mitigation: Use AI systems that employ diverse training data and fairness metrics to reduce bias.
- **Ethics Committees:** Establish review committees for AI ethics to oversee the development and application of AI technologies.
- **Job Redesign and Augmentation Redesigning and Expanding Jobs:** Redesign jobs to incorporate AI technologies, emphasizing augmentation rather than replacement.
- **Collaborative Work:** Promote cooperation between AI systems and human workers to enhance productivity and job satisfaction. Frame Policies that Encourage Social Safety Nets: Establish social safety nets and assistance programs for employees impacted by AI-driven developments.
- **Policy Advocacy:** Advocate for laws that protect the interests and rights of contingent employees in the AI era.
- **Communication and Transparency Transparent Communication:** Maintain open lines of communication about AI systems and their potential effects on contingent labor.
- **Feedback Channels:** Establish channels for employee feedback to address their concerns.
- **Cybersecurity Safeguards:** Implement strong cybersecurity measures and protocols to protect against threats to data and AI systems.
- **Risk Assessments:** Regularly conduct risk assessments to identify and address potential vulnerabilities. Establish parameters for AI decision-making; despite AI's capacity to reduce bias, it is only as effective as the datasets it is trained on. Establish procedures and guidelines defining these parameters. Carefully assess where AI would be most beneficial in a contingent labor workforce program, considering potential implementation challenges. Address related issues such as regulation and dataset usage. Policymakers must carefully consider the integrated economic, social, legal, and ethical effects of AI technology. Develop sustainable approaches to address issues like digital divides, unforeseen effects of automation, job displacement by robots, and other potential obstacles posed by AI.

Governments and the public sector must prioritize safeguarding the interests of contingent workers when utilizing AI technology for public services. AI should be developed with an individual-centred approach, considering human rights concerns. It is crucial to manage AI advancement to promote democracy, peace, and the Sustainable Development Goals while preventing the escalation of disparities and the widening of digital and technological gaps.

Conclusion

In conclusion, the study "The Impact of Artificial Intelligence on the Contingent Workforce: Opportunities and Challenges" underscores the transformative potential of AI on the contingent workforce. AI offers numerous opportunities to enhance job matching, reduce recruitment bias, and improve efficiency. However, it also introduces challenges such as job displacement, ethical dilemmas, and the need for individuals to continuously reskill and upskill.

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