CAREER DECISION-MAKING IN THE AGE OF AUTOMATION: YOUTH PERSPECTIVES ON JOB SECURITY

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Abstract: *This study investigates how young adults navigate career decision-making amid increasing workplace automation and explores their perceptions of job security in technologically evolving industries. Utilizing a qualitative research design, this study conducted in-depth interviews with 30 participants aged 18-25 years, comprising university students and early-career professionals across various disciplines. Data were collected through semi-structured interviews and analyzed using interpretive phenomenological analysis to capture participants' lived experiences and meaning-making processes regarding career choices. The findings reveal that automation anxiety significantly influences career planning, with participants demonstrating strategic avoidance of occupations perceived as high-risk for technological displacement. Three primary themes emerged: adaptive career strategies emphasizing skill diversification, preference for human-centric professions requiring emotional intelligence and creativity, and proactive engagement with continuous learning. Participants expressed heightened awareness of technological disruption but exhibited varying levels of preparedness, with STEM-educated youth showing greater confidence in adapting to automated work environments. Notably, job security concerns often outweighed traditional career satisfaction factors in decision-making processes. This research concludes that automation fundamentally reshapes youth career trajectories, necessitating educational reforms that prioritize adaptability and technological literacy. The findings underscore the importance of career counseling services addressing automation-related uncertainties and developing frameworks that help young professionals build resilient career pathways in an increasingly automated economy.*

Keywords: *Career Decision-Making, Workplace Automation, Youth Employment, Job Security Perceptions, Technological Disruption*

Introduction

The rapid advancement of digital technology, particularly automation and artificial intelligence, has brought significant changes to the structure and dynamics of the global labor market. Various industrial sectors increasingly rely on automated technologies to enhance efficiency, productivity, and competitiveness. However, alongside these benefits, technological progress also presents new challenges, particularly concerning job sustainability and job security, especially for young people who are transitioning from education to the workforce.

Young adults, particularly individuals aged 18–25, represent a group that is highly affected by this transformation, as they are at a critical stage of career decision-making. The growing adoption of workplace automation has generated concerns about the displacement of human labor by technology, influencing how young people perceive career prospects, employment stability, and their professional futures. This phenomenon has contributed to what is

commonly referred to as *automation anxiety*, namely concerns regarding the potential loss of jobs due to technological advancement.

In this context, career decision-making is no longer based solely on personal interests or job satisfaction but is increasingly shaped by perceptions of automation risk and long-term job security. Many young adults have begun to reconsider their career choices by avoiding occupations perceived as highly vulnerable to automation and instead gravitating toward professions that require distinctly human skills, such as creativity, emotional intelligence, and critical thinking. Furthermore, the need for continuous learning and ongoing skill development (*up-skilling*) has become increasingly essential in navigating a rapidly changing labor market.

Nevertheless, levels of preparedness and confidence among young adults in facing automated work environments are not uniform. Educational background, particularly in science, technology, engineering, and mathematics (STEM) fields, often provides greater adaptive advantages compared to non-STEM disciplines. This disparity highlights a gap in career readiness that warrants serious attention from educational institutions, policymakers, and career counseling services.

Given these conditions, this study is important for gaining an in-depth understanding of how young adults navigate career decision-making amid increasing workplace automation and how they interpret job security within technologically evolving industries. By employing a qualitative approach through in-depth interviews, this research seeks to explore the subjective experiences, adaptive strategies, and career considerations of young adults confronting technological disruption.

The findings of this study are expected to contribute academically to the growing body of literature on career decision-making and youth employment in the era of automation. Moreover, the results are anticipated to inform the development of educational policies and career counseling services that are more responsive to automation-related challenges, thereby supporting young people in building adaptive, resilient, and sustainable career pathways in an increasingly automated economy.

Literature Review

Workplace Automation and Employment Dynamics

The advancement of automation and artificial intelligence (AI) has become a key driver of structural changes in global employment. AI-based systems enable organizations to improve efficiency, accelerate decision-making processes, and enhance productivity across various sectors. However, these technological developments also raise concerns regarding job displacement, particularly for routine and repetitive tasks that can be easily automated (Kusumasari et al., 2024). Research indicates that automation produces a dual effect: while it generates new technology-oriented job opportunities, it simultaneously reduces the demand for low-skilled and manual labor (World Economic Forum, 2020).

Moreover, automation alters the skill composition required in the labor market. Workers with limited digital competencies are more vulnerable to technological displacement, whereas individuals with advanced technological and cognitive skills tend to be more adaptable and competitive (Article Text 27200, 2025). This transformation highlights that automation reshapes not only employment quantity but also job quality and skill requirements.

Social media has evolved beyond a social interaction platform and has become a strategic tool for career development among Generation Z (Kee et al., 2023). The study conducted in the Special Region of Yogyakarta reveals that social media usage, when combined with strong digital communication skills and effective personal branding, significantly enhances employability. These factors enable individuals to promote professional competencies, expand

career networks, and increase visibility to potential employers in the digital labor market (Alfaruqy, 2022).

Automation Anxiety and Job Security Perceptions

The increasing adoption of AI in workplaces has led to the emergence of *automation anxiety*, defined as individuals' fear of job loss due to technological substitution. This phenomenon significantly affects employees' perceptions of job security, particularly among young adults entering the labor market (Kusumasari et al., 2024). Previous studies emphasize that AI-driven uncertainty contributes to psychological stress, reduced career confidence, and heightened concerns about long-term employment stability (Indah Respati Kusumasari et al., 2024).

Job security perceptions have become a critical determinant in career-related decision-making. Empirical evidence suggests that concerns about employment stability often outweigh traditional career considerations such as personal interest and job satisfaction, reflecting a shift in career priorities in the digital era (Article Text 2583, 2026).

Career Decision-Making among Young Adults

Career decision-making among young adults occurs within an environment characterized by rapid technological change and uncertainty. Young individuals increasingly evaluate career options based on their perceived resilience to automation risks (JRSIKOM, 2025). Studies show that young adults tend to avoid occupations considered highly susceptible to automation and prefer careers that require human-centric competencies, such as creativity, emotional intelligence, and critical thinking (Article Text 2583, 2026).

Furthermore, digital literacy plays a crucial role in shaping career readiness. Individuals with higher levels of technological competence demonstrate stronger self-efficacy and confidence in navigating automated work environments (JRSIKOM, 2025). These findings suggest that career preparedness is influenced not only by occupational choices but also by individuals' capacity to adapt to technological change.

Digital communication skills play a crucial role in shaping job-seeking behavior and career readiness among Generation Z (Ananda, 2024). Emphasizes that individuals who are able to communicate effectively through digital platforms demonstrate higher confidence, professionalism, and adaptability in recruitment processes. Furthermore, the integration of e-recruitment systems, social media, and employer branding significantly influences Generation Z's intention to apply for jobs in the digital era.

Adaptive Career Strategies and Continuous Learning

To cope with automation-related challenges, adaptive career strategies have become increasingly important. Research emphasizes skill diversification, lifelong learning, and continuous upskilling as essential responses to technological disruption (World Economic Forum, 2020). Rather than replacing human labor entirely, AI is increasingly viewed as a collaborative tool that supports human decision-making and enhances work performance (Kusumasari et al., 2024).

Educational institutions and career counseling services are therefore expected to play a strategic role in preparing young people for future labor market demands. Curricula that prioritize technological literacy, critical thinking, and soft skill development are essential for fostering resilient and sustainable career pathways in an automated economy (Article Text 27200, 2025).

Research Gap

Although existing literature extensively discusses the macro-level impacts of automation and AI on employment, limited attention has been given to young adults' subjective experiences in career decision-making. Most prior studies focus on labor market trends or organizational outcomes, leaving a gap in understanding how young individuals perceive automation risks, job security, and career adaptability (Kusumasari et al., 2024). Therefore, this study addresses this gap by exploring young adults' lived experiences and meaning-making processes regarding career decisions in the context of increasing workplace automation.

Method

1. Research Design

This study employed a qualitative research design to explore how young adults perceive and respond to workplace automation in their career decision-making processes. A qualitative approach is particularly appropriate for examining complex social phenomena that involve subjective interpretations, emotions, and lived experiences (Creswell & Poth, 2018). By focusing on individual perspectives, this study aimed to uncover deeper insights into how automation-related uncertainty shapes career planning and job security perceptions.

2. Participants

The participants consisted of 30 young adults aged 18–25 years, including university students and early-career professionals from diverse academic disciplines. This age group was selected because young adults are at a critical transitional phase between education and employment, making them particularly vulnerable to labor market disruptions caused by automation (World Economic Forum, 2020). Purposive sampling was used to ensure participants had direct experience with career planning or early workforce entry.

3. Data Collection

Data were collected through semi-structured, in-depth interviews conducted either face-to-face or online. Semi-structured interviews allowed participants to freely express their experiences while ensuring that core topics such as perceptions of automation, job security concerns, and career strategies were consistently addressed across interviews (Smith et al., 2009). Each interview lasted approximately 30–45 minutes and was audio-recorded with participants' consent.

4. Data Analysis

The collected data were analyzed using Interpretative Phenomenological Analysis (IPA). IPA is suitable for understanding how individuals make sense of significant life experiences, including career-related decisions under uncertainty (Smith et al., 2009). The analysis process involved repeated reading of transcripts, initial coding, theme identification, and interpretative synthesis. To enhance trustworthiness, themes were cross-checked to ensure consistency and alignment with participants' narratives.

Result and Discussion

Overall, the results of this study demonstrate that the transformation of the labor market driven by automation and artificial intelligence has a substantial impact on career decision-making among young adults. The findings indicate that automation anxiety, job security

concerns, and the demand for digital and human-centered skills jointly shape how Generation Z evaluates and plans their career pathways. These results are consistent with previous studies emphasizing that technological disruption not only restructures employment opportunities but also alters individuals' career values and priorities.

Furthermore, this study highlights that adaptability, continuous learning, and digital competence are critical factors in maintaining employability in an increasingly automated work environment. Young adults who actively develop technological literacy and soft skills tend to demonstrate greater confidence and preparedness in facing labor market uncertainty. Therefore, the integration of digital skills development, career guidance, and supportive educational policies is essential to foster sustainable and resilient career trajectories for Generation Z.

Table 1. Supporting Literature Linking Generation Z Employability, Digital Competence, and AI-Driven Labor Dynamics.

Key Aspect	Findings from Previous Studies	Implications for Generation Z Employability
Digital Communication Skills	Generation Z shows strong preference for digital communication platforms but tends to have weaker face-to-face interpersonal communication skills due to excessive reliance on technology.	Digital communication competence enhances employability, but insufficient interpersonal skills may reduce workplace effectiveness.
Human Resource Strategies for Gen Z	Effective HR strategies include career training, digital-based career guidance, flexible work culture, and alignment with Gen Z characteristics.	Strategic HR management improves career maturity and readiness for the labor market among Generation Z.
Artificial Intelligence Adoption	AI implementation increases efficiency, accelerates data analysis, and supports strategic decision-making in organizations.	Generation Z gains new employment opportunities in technology-based roles requiring digital and analytical skills.
Job Displacement Risk	AI-driven automation replaces routine and manual jobs, leading to workforce restructuring and potential unemployment.	Generation Z must continuously upskill to remain competitive and adaptable in an AI-driven labor market.
Skills Gap Challenge	There is a significant gap between labor market demand for digital skills and workforce readiness, especially in developing economies.	Digital literacy, communication skills, and personal branding are critical to reducing employability gaps for Generation Z.
Career Maturity Development	Career maturity is influenced by education quality, parental support, and structured career guidance using digital technology.	Strengthening career planning systems increases employability sustainability for Generation Z in the digital era.

Automation Anxiety and Career Planning

The findings reveal that automation anxiety strongly influences young adults' career decision-making. Many participants expressed concerns about the potential replacement of human labor by automated systems, particularly in routine and administrative occupations. This anxiety led participants to prioritize job security over personal interests when selecting career paths. These findings support previous studies indicating that fear of technological displacement significantly affects career preferences and employment expectations (Kusumasari et al., 2024).

Participants' emphasis on job stability reflects a broader shift in career values, where economic security becomes more important than intrinsic job satisfaction. This trend aligns with research showing that technological uncertainty increases risk-averse behavior among young job seekers (Article Text 2583, 2026).

Preference for Human-Centric Professions

Another key finding is participants' preference for careers that emphasize human-centric skills, such as creativity, emotional intelligence, communication, and ethical judgment. Participants perceived these skills as less vulnerable to automation and more sustainable in the long term. This perception is consistent with studies suggesting that occupations requiring complex human interaction are more resistant to technological substitution (Article Text 27200, 2025).

This finding reinforces the argument that automation reshapes not only job availability but also young adults' understanding of what constitutes a "secure" and "future-proof" career. Human-centered competencies are increasingly viewed as strategic assets in the evolving labor market (JRSIKOM, 2025).

Adaptive Career Strategies and Continuous Learning

Participants demonstrated varying levels of readiness to adapt to automated work environments. Those with STEM-related educational backgrounds reported higher confidence in coping with technological changes, while non-STEM participants expressed a stronger need for reskilling. Across all participants, continuous learning and skill diversification emerged as essential strategies for maintaining employability. This supports prior research emphasizing lifelong learning as a key response to automation-driven labor market transformation (World Economic Forum, 2020).

The findings also highlight the importance of educational institutions in fostering adaptability. Curricula that integrate digital literacy, problem-solving, and soft skills are crucial in preparing young adults for uncertain career landscapes (Kusumasari et al., 2024).

According to the World Economic Forum's Future of Jobs Report, more than **half of all employees will require significant reskilling and upskilling by 2027,** with technological adoption driving new demands for advanced analytical, digital, and interpersonal skills. ***Digital transformation*** is not only reshaping job roles but also redefining employability criteria in the 21st century. Young workers, especially Generation Z, must therefore combine ***technical proficiency*** with ***adaptability and lifelong learning mindsets*** to remain competitive in an evolving labor market. *(World Economic Forum, Future of Jobs Report)*

A McKinsey analysis highlights that while technology accelerates automation of routine tasks, it simultaneously increases demand for human-centered skills such as ***critical thinking, creativity, communication, and leadership***. These skills cannot be fully replicated by machines and are therefore projected to be among the most valued competencies in the workplace of the future. For Generation Z, developing these ***soft skills in tandem with digital literacy*** will enhance employability resilience and career adaptability. *(McKinsey & Company, Global Workplace Trends)*

The Organization for Economic Cooperation and Development (OECD) reports that developing **inclusive digital infrastructures** and integrating ***technology-enabled career guidance systems*** improve youth employment outcomes. Countries with robust digital learning ecosystems and accessible career support services show ***higher rates of sustained employment***

among young adults. This emphasizes the need for policy interventions that reduce digital divides and promote equitable access to future-ready skills development. *(OECD, Digital Education and Career Readiness Policy Insights)*

Conclusion

This study concludes that workplace automation significantly reshapes young adults' career decision-making processes and perceptions of job security. Automation anxiety encourages individuals to prioritize employment stability and avoid occupations perceived as highly vulnerable to technological displacement. Young adults increasingly favor careers that emphasize human-centric skills and adopt adaptive strategies, such as continuous learning and skill diversification, to enhance career resilience.

The findings underscore the need for educational reforms that prioritize technological literacy, adaptability, and lifelong learning competencies. Moreover, career counseling services should explicitly address automation-related uncertainties and support young people in developing flexible and sustainable career pathways. Future research is recommended to employ longitudinal approaches to examine how young adults' career strategies evolve alongside technological advancements. The World Economic Forum projects that a majority of employees will need significant reskilling and upskilling by 2027, underscoring the urgency for Generation Z to adopt a lifelong learning mindset (World Economic Forum, *Future of Jobs Report*, 2023).

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