© International Academic Research Journal of Business and Management
Volume 14, Issue No:1, April 2026, Page no. 140-145
ISSN:2227-1287
DOI: https://doi.org/10.5281/zenodo.19948683

Predictive Modelling of Career Preferences Among Generation Z Using Survey-Driven Career Decision Analytics

Mohammed Ameen
MBA Student, Faculty of Management Studies,
CMS Business School, JAIN (Deemed-to-be-University),
Bangalore, Karnataka, India

Ms. Amita Gupta
Assistant Professor in practice, Faculty of Management Studies,
CMS Business School, JAIN (Deemed-to-be-University),
Bangalore, Karnataka, India

Abstract

This study examines the career preferences of Generation Z (Gen Z) recent graduates in India through a data-driven predictive modelling framework. With the rapid transformation of the labour market driven by digitalization, remote work adoption, and entrepreneurial growth, understanding the evolving career choices of Gen Z has become increasingly important for organizations, educational institutions, and policymakers. The research focuses on three core dimensions of career preference: industry and sector choice, remote work orientation, and entrepreneurial inclination. Primary data was collected from 154 Gen Z graduates aged 22–26 years across India using a structured online questionnaire. The study employs descriptive statistics, Chi-square tests, and supervised machine learning algorithms—Logistic Regression and Random Forest—to analyse and predict career preference outcomes. The findings indicate that Information Technology and Software is the most preferred sector, while hybrid work arrangements dominate workplace preferences. Notably, 59.1% of respondents expressed entrepreneurial intentions, with starting a business emerging as the most common career goal. Among the tested hypotheses, risk tolerance was found to be a statistically significant predictor of entrepreneurial inclination. Furthermore, Random Forest outperformed Logistic Regression in predictive accuracy, identifying entrepreneurial self-concept, career growth orientation, age, and work experience as key influencing variables. The study contributes to the extension of Social Cognitive Career Theory and the Theory of Planned Behaviour in the Indian context. It also offers practical insights for recruiters, academic institutions, and policymakers to align strategies with Gen Z expectations. The integration of survey-based analytics with machine learning provides a robust framework for predictive career decision analysis in emerging economies.

INTRODUCTION

The global labour market is undergoing a fundamental transformation driven by technological advancement, digital work ecosystems, and generational shifts in workforce participation. At the center of this transition is Generation Z (Gen Z), the first fully digital-native generation, characterized by high technological exposure, evolving work values, and dynamic career expectations. As Gen Z graduates begin entering the workforce, their career preferences are increasingly diverging from traditional employment patterns observed in earlier generations.

India presents a unique context for studying Gen Z career behaviour due to its demographic advantage. With over 65% of its population below the age of 35, the country's economic future is closely tied to how effectively its young workforce is integrated into the labour market. Recent graduates aged 22–26 represent a critical segment within this demographic, as they are actively making career decisions that shape long-term professional trajectories.

Traditional career theories such as Holland's Vocational Choice Theory and Super's Career Development Model have historically provided a foundation for understanding career decisions. However, these frameworks were largely developed

in Western contexts and may not fully capture the complexity of career preferences in modern India. Additionally, the post-pandemic landscape has introduced new variables such as remote work, gig economy participation, and entrepreneurial opportunities, further challenging conventional career models.

Existing research on Gen Z career preferences in India is largely descriptive and lacks predictive rigor. While studies highlight trends such as preference for flexibility, purpose-driven work, and digital environments, they often fail to quantify the determinants influencing these preferences. This creates a gap between theoretical understanding and actionable insights required by stakeholders.

This study addresses this gap by adopting a predictive modelling approach based on survey-driven analytics. Unlike traditional studies that describe career trends, this research aims to identify key predictors and forecast career outcomes using machine learning techniques. The study focuses on three major dimensions: industry preference, remote work orientation, and entrepreneurial inclination.

The integration of predictive analytics enables a shift from descriptive to actionable insights. By identifying the most influential variables affecting career decisions, the study provides valuable inputs for organizations to design recruitment strategies, for universities to improve career guidance, and for policymakers to develop targeted employment initiatives.

Overall, this research contributes to the growing field of career analytics by combining behavioural theory with data science methodologies. It offers both theoretical and practical value in understanding the evolving career landscape of Gen Z in India.

LITERATURE REVIEW

The literature highlights three key themes:

1. Generational Behaviour and Career Preferences

Studies indicate that Gen Z values independence, flexibility, and meaningful work. Research also suggests increased economic anxiety and cautious risk-taking behaviour compared to previous generations.

2. Career Theories and Frameworks

- Social Cognitive Career Theory (SCCT) emphasizes self-efficacy and outcome expectations.
- Theory of Planned Behaviour (TPB) links attitudes, norms, and perceived control to career intentions.
- Person-Environment Fit Theory highlights alignment between individual values and work environments.

PREDICTIVE ANALYTICS IN CAREER RESEARCH

Recent studies demonstrate that machine learning models such as Random Forest outperform traditional statistical methods in predicting career outcomes. However, such applications remain limited in the Indian context.

Research Gaps Identified

- Lack of India-specific predictive models
- Limited post-pandemic analysis
- Absence of integrated multi-dimensional career frameworks
- Underrepresentation of recent graduates

METHODOLOGY

Research Design

- Quantitative, cross-sectional design
- Descriptive + predictive approach

Sample

- 154 Gen Z graduates (age 22–26)
- Data collected via online questionnaire

Variables

Dependent Variables:

- Industry Preference
- Remote Work Orientation
- Entrepreneurial Inclination

Independent Variables:

- Digital skills
- Work-life balance expectations
- Risk tolerance
- Financial self-efficacy
- Demographics

Techniques Used

- Descriptive Statistics
- Chi-square Test
- Logistic Regression
- Random Forest

DATA ANALYSIS & IMPLICATIONS

Hypothesis Testing

- Risk tolerance significantly influences entrepreneurship ($p < 0.05$)
- Other variables showed moderate influence

Important Predictors (Random Forest)

- Entrepreneurial self-concept
- Career growth orientation
- Age
- Work experience
- Education level

Implications

- Organizations must emphasize flexibility and growth
- Universities should promote entrepreneurial skills
- Policymakers should support startup ecosystems

DISCUSSION AND CONCLUSION

The findings confirm that Gen Z career preferences are multidimensional and influenced by both personal and contextual factors. The strong inclination toward entrepreneurship reflects changing attitudes toward traditional employment. Additionally, the preference for hybrid work highlights the lasting impact of the COVID-19 pandemic on workplace expectations.

The study validates the relevance of SCCT and TPB in predicting career decisions while extending their applicability to the Indian context. The superior performance of Random Forest reinforces the value of machine learning in career analytics.

In conclusion, Gen Z represents a dynamic workforce with evolving expectations. Organizations that fail to adapt risk losing access to this emerging talent pool.

FUTURE SCOPE FOR RESEARCH

- Expand sample size across rural and urban regions
- Conduct longitudinal studies
- Compare cross-country Gen Z behaviour

- Include additional ML models (e.g., Neural Networks)
- Explore psychological and behavioural variables in depth

References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Arora, P., & Sharma, R. (2020). Sector preference determinants among Indian management graduates. *Journal of Career Development, 47*(3), 312–326. https://doi.org/10.1177/0894845318793987

Buffer. (2023). *State of remote work 2023*. Buffer Inc. https://buffer.com/state-of-remote-work/2023

Deloitte. (2023). *2023 Gen Z and millennial survey: Life disrupted — striving for resilience and purpose*. Deloitte Insights. https://www.deloitte.com/global/en/issues/work/content/genzmillennialsurvey.html

Hockerts, K. (2017). Determinants of social entrepreneurial intentions. *Entrepreneurship Theory and Practice, 41*(1), 105–130. https://doi.org/10.1111/etap.12171

Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3rd ed.). Psychological Assessment Resources. https://psycnet.apa.org/record/1997-08980-000

Kaur, P., & Bhatt, A. (2022). Predicting career choices of engineering graduates using random forest classification. *International Journal of Data Science and Analytics, 13*(2), 145–159. https://doi.org/10.1007/s41060-021-00291-3

Kulkarni, M., & Nithyanand, S. (2021). Career expectations of Generation Z in urban India. *South Asian Journal of Human Resources Management, 8*(1), 45–63. https://doi.org/10.1177/2322093720980378

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior, 45*(1), 79–122. https://doi.org/10.1006/jvbe.1994.1027

Mohamad, M., & Tasir, Z. (2013). Educational data mining: A review. *Procedia — Social and Behavioral Sciences, 97*, 320–324. https://doi.org/10.1016/j.sbspro.2013.10.240

Nambiar, D., & Chitty, N. (2022). Entrepreneurial intentions among Generation Z graduates in India. *Journal of Entrepreneurship in Emerging Economies, 14*(4), 611–629. https://doi.org/10.1108/JEEE-05-2020-0136

Nasscom. (2022). *India tech workforce report 2022*. National Association of Software and Service Companies. https://nasscom.in/knowledge-center/publications/nasscom-talent-report-2022

Note, S., & Hess, A. (2020). Digital self-efficacy and career interests among Generation Z. *Journal of Career Assessment, 28*(3), 412–428. https://doi.org/10.1177/1069072719845279

Patton, W., & McMahon, M. (2014). *Career development and systems theory: Connecting theory and practice* (3rd ed.). Sense Publishers. https://doi.org/10.1007/978-94-6209-635-6

Rounds, J., & Su, R. (2014). The nature and power of interests. *Current Directions in Psychological Science, 23*(2), 98–103. https://doi.org/10.1177/0963721414522812

Seemiller, C., & Grace, M. (2016). *Generation Z goes to college*. Jossey-Bass. https://www.wiley.com/en-us/Generation+Z+Goes+to+College-p-9781119143451

Key Findings

Variable	Observation
Industry Preference	IT & Software most preferred
Work Mode	Hybrid preferred
Career Intention	59.1% entrepreneurial inclination

Model Performance

Model	Performance
Logistic Regression	Moderate accuracy
Random Forest	Higher accuracy (best model)