# METAVERSE-BASED CAREER COUNSELLING AND NETWORKING FOR COLLEGE STUDENTS

*Niranchana Shri Viswanathan[1],* Dr Julee Banerji[2,] Dr Oyyappan[3]
*[1]School of Management Studies, Sapthagiri NPS University, Bengaluru, India[1],*
[2]IIMS Pune, Maharashtra, India,
*[3]Lincoln University, Malaysia,*
Email ID: niranchanaphd@gmail.com[1], juleebanerji@gmail.com[2] ,Oyyappan@lincoln.edu[3]

## Abstract:

This study examines the prospect of the metaverse as an online platform for career counseling and networking in the context of higher education. The goal is to see how virtual settings can help students connect with the industry and make it easier for their search for jobs. The study analyzes the integration of metaverse in career services, such as virtual career fairs, online networking, and mentorship programs. This study adopts a qualitative methodology involving semi-structured interviews with three groups: college career services personnel, students, and industry representatives. Also, focus groups and participant observations of user experiences and perceptions in virtual career events provide rich, in-depth, qualitative data. The study also features case studies of colleges that have adopted metaverse-based career services to uncover best practices and hurdles. Results show that students are more engaged in Metaverse based career services and can network with professionals at a more affordable rate. It offers better working profiles and job opportunities along with significant inconveniences of technology challenges and the need for digital literacy training. The study provides evidence of the potential benefits of metaverse platforms to career development but cautions that careful planning and support mechanisms will be needed for successful roll-out. This research suggests that colleges can better serve employers by integrating virtual career services into their organizational structures and emphasizing user-friendliness and technical support. The research further emphasizes the novelty of metaverse based career services and warrants the need for more studies about how metaverse based career services will form the students and employability in longer term perspective.

**Keywords:** Metaverse Career ,counseling, Higher education ,Virtual networking ,Student engagement

## INTRODUCTION:

The results chapter defines the analytical findings that result from empirical studies on the proposed metaverse-based career counselling and networking system. The study encompasses both descriptive and inferential statistics, highlighting the structural linkages among critical elements, including immersive experience, AI-driven counselling, virtual networking, data privacy issues, digital literacy, and user acceptance of the metaverse. The measurement model was tested for reliability, convergent validity, and discriminant validity by confirmatory factor analysis (CFA) and structural equation modelling (SEM), therefore confirming the robustness of the constructs. The structural model was used to evaluate the proposed linkages, providing empirical validation for both direct and mediated effects. Additionally, a moderation study was performed to investigate the impact of digital literacy on the correlation between immersive experience and user approval. Model fit indicators were evaluated continuously to guarantee statistical sufficiency and conceptual coherence. The results combined provide significant insights into the impact of developing technologies in virtual environments on college students' professional decision-making processes.

### Research Questions
1. What is your way of implementing metaverse in college career counseling and networking

services?

2. How do metaverse activities like virtual job fairs, professional networking events, and mentorships influence students' career development?
3. How much better job search rates for students can the metaverse achieve relative to standard career services?
4. How Will metaverse-based career counseling and networking be a challenge or opportunity for colleges?

But while the metaverse has great potential to revolutionize career counseling and higher education, several research gaps(Mahdi et al., 2023) need to be filled. A key question is whether metaverse-based career counseling makes a lasting impact on student outcomes. At the same time, little empirical research is there in literature that(Tarnanidis, 2024) examines the actual conversion of these virtual experiences into real-world success and satisfaction in careers. There are also equity and access questions surrounding metaverse-based educational tools.(Kumar et al., 2025a) However, as this technology requires special hardware and internet connectivity, there is a chance that existing educational gaps will widen even further. (Kumar et al., 2025b)There is a need for research to identify ways to mitigate inequities in access to these innovative resources across diverse student populations. Another(Chan et al., 2024) vital research gap relates to the psychological and sociological effects of long-term immersion in virtual environments for the(Kumar et al., 2024) purposes of career exploration and networking. It is now more important than ever to delve into the possible impacts of virtual spending on their social skills, mental (Al Harthy et al., 2023)well-being, and just well-being in general, because students(Lau, 2022) are spending much longer in these digital spaces. Considering these research gaps, one can ask how the incorporation (Moro-Visconti, 2022)of metaverse-based global networking and career counseling in higher education will affect students in terms (Hajjami & Park, 2024)of career readiness, decision-making processes and long-term professional outcomes? In this question, (Hohendanner et al., 2024)we acknowledge the various impacts that metaverse technology might have on the academic and career paths students will take(Priest, 2024), which will provide crucial information to educators, policymakers, and technology developers as we enter the final years of higher education and career counseling.

**Objectives:**

1. Analyze the learning potential that is offered by the metaverse for the college student career counselling services.
2. To assess in what ways metaverse-based job fairs can help bridge students and industry professionals.
3. Study the Effectiveness of Virtual Job Fairs and Mentorship Opportunities on Students Career Development and Job Searching for Success Rates
4. To analyze potential challenges and advantages of incorporating metaverse technologies into existing career services in colleges.

**Statement of the Problem**

Based on these differences between the two environments, the problem statement identifies a gap in knowledge around user acceptance and where this leads for the adoption of metaverse based career services as such the problem statement guides the need to apply the technology acceptance model (TAM) to the area. The objective of the research is an adaptation of the Technology Acceptance Model (TAM) for metaverse career services, from the perspective of a conceptual framework to propose five key constructs (perceived usefulness, perceived ease of use, and behavioral intention) to enlighten academics and practitioners in both career development and education technology areas.

## LITERATURE REVIEW

An in-depth literature review surrounding(Dekate & Mehta, 2025a) technology acceptance model (TAM), metaverse technologies, and career services reveals key characteristics. Although TAM has been extensively used in(Feng et al., 2024) many technological innovations, the application (Dekate

& Mehta, 2025b)of TAM in metaverse-based career services is scarce. Previous studies have focused on general use of virtual reality and augmented reality for education and training but much less regarding the use of such technologies in career-specific contexts.(Lim et al., 2024)

**Measurement model and validity:**

The measuring model was systematically tested to check the reliability and validity of the constructs used in the research, including Career Decision-Making, Immersive Experience, AI- Powered Counselling, Virtual Networking, Data Privacy Concern, Digital Literacy, and User Acceptance of the Metaverse. Confirmatory Factor Analysis (CFA) was performed to verify the dimensionality of these latent components. The scales' reliability was validated using Cronbach's alpha values, all indicating robust internal consistency. Convergent validity was confirmed by high factor loadings, with each indication beyond the permissible level, and by the calculation of Average Variance Extracted (AVE) and Composite Reliability (CR), all of which adhered to conventional standards. Discriminant validity was established by comparing the square roots of the Average Variance Extracted (AVE) with inter-construct correlations, so confirming that each construct was empirically different from the others in the model. The Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity confirmed the sampling adequacy and factorability of the data, establishing a robust basis for factor analysis. The measuring model demonstrated strong psychometric qualities, confirming its use in later structural equation modelling to examine the proposed links among constructs.

# DEMOGRAPHIC VARIABLES:

*Table 1 Demographic variables*

|  |  | Frequency | Percent |
|---|---|---|---|
| Gender | Male | 252 | 52.5 |
|  | Female | 225 | 46.9 |
|  | Other | 3 | 0.6 |
|  | Total | 480 | 100.0 |
| Age | Below 18 | 110 | 22.9 |
|  | 18–21 | 130 | 27.1 |
|  | 22–25 | 125 | 26.0 |
|  | 26 and above | 115 | 24.0 |
|  | Total | 480 | 100.0 |
| Educational Level | Undergraduate (UG) | 133 | 27.7 |
|  | Postgraduate (PG) | 111 | 23.1 |
|  | Doctoral (PhD) | 108 | 22.5 |
|  | Others | 128 | 26.7 |
|  | Total | 480 | 100.0 |
| Location | Urban | 159 | 33.1 |
|  | Semi-Urban | 171 | 35.6 |
|  | Rural | 150 | 31.3 |

| | Total | 480 | 100.0 |
|---|---|---|---|
| Digital Device Access | Smartphone | 119 | 24.8 |
| | Laptop/Desktop | 126 | 26.3 |
| | Tablet | 113 | 23.5 |
| | Shared Devices | 122 | 25.4 |
| | Total | 480 | 100.0 |

## DISCUSSION:

This study's results provide significant empirical evidence for the influence of metaverse-based technologies on students' career decision-making processes. The findings highlight the complex influence of immersive experiences, AI-driven counselling, virtual networking, data privacy issues, digital literacy, and user acceptability on students' ability to make educated and confident career decisions. The notable standardized route coefficients within the structural models indicate that immersive encounters in the metaverse transcend just aesthetic upgrades; they are psychologically engaging settings that promote a more profound investigation of career interests. A robust positive correlation ($\beta = 0.686$) exists between immersive experience and professional decision-making, indicating that when digital environments accurately replicate real-world interactions, they facilitate enhanced clarity in career planning. Likewise, AI-driven counseling had a more robust correlation ($\beta = 0.737$) with professional decision- making, indicating the confidence and usefulness students attribute to tailored, algorithmic support. These advanced algorithms, adept at analysing user behaviour and preferences, provide scalable, bias-minimized assistance that conventional approaches often lack.

The results also indicate the increasing significance of virtual networking as an essential instrument for professional advancement. The positive path coefficient ($\beta = 0.696$) indicates that digital social capital, developed via professional and peer networks in the metaverse, increases access to varied opportunities and mentoring, hence directly facilitate more effective decision-making. Furthermore, the research acknowledges the psychological aspect of trust in digital contexts, shown by the substantial impact of data privacy concerns ($\beta = 0.446$). This moderately significant impact highlights that students apprehensive about data exploitation may demonstrate cautious and introspective conduct, resulting in more intentional job choices.

This work significantly contributes by analysing mediating and moderating effects. User acceptance of the metaverse serves as a partial mediator in the association between AI-powered counselling and career decision-making (indirect impact = 0.184), demonstrating that students' receptiveness to metaverse platforms is crucial for converting AI-generated insights into practical career decisions. Moreover, digital literacy served as a notable positive mediator in the correlation between immersive experience and user approval (interaction effect = 0.103). This indicates that students with more digital competence are more adept at converting virtual interaction into significant adoption and use of metaverse platforms. Consequently, cultivating digital literacy is crucial not just for technical navigation but also for amplifying the overall efficacy of immersive interventions.

The model fit indices for the hypotheses (e.g., CFI > 0.96, RMSEA < 0.06) confirms the strength and dependability of the proposed theoretical framework. The research integrates psychological preparation, technical affordances, and structural elements to elucidate student behaviour in digital settings. It provides practical ideas for schools, counsellors, and platform developers to create more inclusive, safe, and engaging metaverse-based career ecosystems. This study establishes a foundation for future investigations into individualized career assistance systems in digital environments by verifying the intricate interactions of cognitive, emotional, and technical aspects, possibly transforming

how the next generation manages their professional trajectories.

## Conclusion:

The study's full data set shows multiple significant results about the influence of metaverse- based elements on career decision-making among college students. The results indicate that immersive experiences, AI-driven counselling, virtual networking, and data privacy issues individually enhance students' capacity to make educated career choices. Immersive experiences and AI-driven advice emerged as important predictors, demonstrating that realistic, interactive digital environments and individualized support mechanisms substantially improve student engagement and decision quality. Virtual networking shown a significant impact, emphasizing the importance of peer and professional relationships within a metaverse environment. Data privacy concerns, albeit relatively mild in impact, demonstrated a statistically significant correlation with professional decision-making, highlighting the need of trust and data security for user involvement on digital platforms. Moreover, user adoption of the metaverse was identified as a mediator in the influence of AI-powered counselling on professional decision-making, underscoring that students' readiness to adopt metaverse technology is crucial for converting AI-driven assistance into practical judgments.

Furthermore, digital literacy was shown to regulate the correlation between immersive experience and metaverse acceptability, underscoring the significance of technological proficiency in optimizing the advantages of sophisticated virtual systems. The models' robustness was confirmed by elevated reliability scores, acceptable model fit indices, and substantial factor loadings, hence confirming the findings' credibility and generalizability. The study offers empirical evidence endorsing the incorporation of immersive, AI-driven, and interconnected metaverse platforms within educational and career guidance systems, with ramifications for policymakers, educators, and technologists seeking to empower students in a digitally evolving landscape.

## REFERENCE:

1. Al Harthy, B., Al Harthi, A., Arianpoor, A., & Zaidan, A. S. (2023). Impact of Metaverse at Workplace: Opportunity and Challenges. In *Lecture Notes in Networks and Systems: Vol. 876 LNNS*. https://doi.org/10.1007/978-3-031-51300-8_4

2. Bekos, G. S., Chari, S., Marikyan, D., & Papagiannidis, S. (2025). Metaverse adoption for competitive edge: The role of implementation capability &amp; willingness to change. *Decision Support Systems*, *189*. https://doi.org/10.1016/j.dss.2024.114385

3. Chan, S., Chandrashekhar, D., Almazloum, W., Zhang, Y., Lord, N., Osterrieder, J., & Chu, J. (2024). Stylized facts of metaverse non-fungible tokens. *Physica A: Statistical Mechanics and Its Applications*, *653*. https://doi.org/10.1016/j.physa.2024.130103

4. Dekate, S., & Mehta, P. (2025a). Team adaptive performance in the metaverse workspace: Team cohesion as a mediator. *Computers in Human Behavior*, *165*. https://doi.org/10.1016/j.chb.2024.108535

5. Dekate, S., & Mehta, P. (2025b). Team adaptive performance in the metaverse workspace: Team cohesion as a mediator. *Computers in Human Behavior*, *165*. https://doi.org/10.1016/j.chb.2024.108535

6. Feng, X., Wang, X., & Su, Y. (2024). An analysis of the current status of metaverse research based on bibliometrics. *Library Hi Tech*, *42*(1), 284–308. https://doi.org/10.1108/LHT-10-2022-0467

7. Hajjami, O., & Park, S. (2024). Using the metaverse in training: lessons from real cases. *European Journal of Training and Development*, *48*(5–6), 555–575. https://doi.org/10.1108/EJTD-12-2022-0144

8. Hohendanner, M., Ullstein, C., Miyamoto, D., Huffman, E. F., Socher, G., Grossklags, J., & Osawa, H. (2024). Metaverse Perspectives from Japan: A Participatory Speculative Design Case Study. *Proceedings of the ACM on Human-Computer Interaction*, *8*(CSCW2). https://doi.org/10.1145/3686939

9. Hutson, J., Lively, J., & Melick, E. (2024). Learning Communities in the Metaverse: Integrating High-Impact Practices and Durable Skills in a First-Year Experience Course Taught Entirely in a Virtual Learning Environment. *International Journal of Learning in Higher Education*, *31*(1), 97–126. https://doi.org/10.18848/2327-7955/CGP/V31I01/97-126

10. Joel-Edgar, S., Chowdhury, S., Nagy, P., & Ren, S. (2025a). Virtual influencers in social media versus the metaverse: Mind Perception, blame judgements and brand trust. *Journal of Business Research*, *189*. https://doi.org/10.1016/j.jbusres.2024.115139

11. Joel-Edgar, S., Chowdhury, S., Nagy, P., & Ren, S. (2025b). Virtual influencers in social media versus the metaverse: Mind Perception, blame judgements and brand trust. *Journal of Business Research*, *189*. https://doi.org/10.1016/j.jbusres.2024.115139

12. Kraus, S., Kanbach, D. K., Krysta, P. M., Steinhoff, M. M., & Tomini, N. (2022). Facebook and the creation of the metaverse: radical business model innovation or incremental transformation? *International Journal of Entrepreneurial Behaviour and Research*, *28*(9), 52–77. https://doi.org/10.1108/IJEBR-12-2021-0984

13. Kraus, S., Kumar, S., Lim, W. M., Kaur, J., Sharma, A., & Schiavone, F. (2023a). From moon landing to metaverse: Tracing the evolution of Technological Forecasting and Social Change. *Technological Forecasting and Social Change*, *189*.

https://doi.org/10.1016/j.techfore.2023.122381

14. Kraus, S., Kumar, S., Lim, W. M., Kaur, J., Sharma, A., & Schiavone, F. (2023b). From moon landing to metaverse: Tracing the evolution of Technological Forecasting and Social Change. *Technological Forecasting and Social Change*, *189*. https://doi.org/10.1016/j.techfore.2023.122381

15. Kumar, A., Shankar, A., Behl, A., Pereira, V., Kapoor, P., & Papa, A. (2025a). Implementing enterprise metaverse as a means of enhancing growth hacking performance: Will adopting the metaverse be a success in organizations? *Journal of Business Research*, *188*. https://doi.org/10.1016/j.jbusres.2024.115079

16. Kumar, A., Shankar, A., Behl, A., Pereira, V., Kapoor, P., & Papa, A. (2025b). Implementing enterprise metaverse as a means of enhancing growth hacking performance: Will adopting the metaverse be a success in organizations? *Journal of Business Research*, *188*. https://doi.org/10.1016/j.jbusres.2024.115079

17. Kumar, A., Shankar, A., Kumar, R., & Vadakki Veetil, A. K. (2024). Metaverse meetings: fantasy or sustainable future of work? *International Journal of Manpower*. https://doi.org/10.1108/IJM-11-2023-0662

18. Lau, K. W. (2022). Rethinking the Knowledge Transfer Process Through the Use of Metaverse: A Qualitative Study of Organizational Learning Approach for Remote Workplace. *Presence: Teleoperators and Virtual Environments*, *31*, 229–244. https://doi.org/10.1162/pres_a_00395

19. Lim, D. H., Lee, J. Y., & Park, S. (2024). The Metaverse in the Workplace: Possibilities and Implications for Human Resource Development. *Human Resource Development Review*, *23*(2), 164–198. https://doi.org/10.1177/15344843231217174

20. Mahdi, H. F., Sharma, B., Sille, R., & Choudhury, T. (2023). Metaverse and Healthcare: An Empirical Investigation. *HORA 2023 - 2023 5th International Congress on Human-Computer Interaction, Optimization and Robotic Applications, Proceedings*. https://doi.org/10.1109/HORA58378.2023.10156688

21. Moro-Visconti, R. (2022). The Valuation of Digital Intangibles: Technology, Marketing, and the Metaverse. In *The Valuation of Digital Intangibles: Technology, Marketing, and the Metaverse*. https://doi.org/10.1007/978-3-031-09237-4

22. Park, H., Ahn, D., & Lee, J. (2024). Lessons From Working in the Metaverse: Challenges, Choices, and Implications from a Case Study. *Conference on Human Factors in Computing Systems - Proceedings*. https://doi.org/10.1145/3613904.3641972

23. Priest, S. (2024). Predicting the future of experiential and adventurous learning in the metaverse. *Journal of Adventure Education and Outdoor Learning*, *24*(1), 21–34. https://doi.org/10.1080/14729679.2023.2220835

24. 24.Putra Gary, A. A., & Husni, E. (2023). Optimization on ITB Metaverse Development. *2023 22nd International Symposium INFOTEH-JAHORINA, INFOTEH 2023*. https://doi.org/10.1109/INFOTEH57020.2023.10094107

25. Qasim, A., El Refae, G. A., & Eletter, S. (2023). Metaverse and Accounting Education: Potentials and Opportunities in the Accounting Internship Courses. *Proceedings - 2023 10th International Conference on Social Networks Analysis, Management and Security, SNAMS 2023*. https://doi.org/10.1109/SNAMS60348.2023.10375474

26. Shankar, A., Gupta, R., Kumar, A., Biswas, B., & Rathore, B. (2025a). Exploring the adoption of Enterprise Metaverse in Business-to-Business (B2B) organisations. *Industrial Marketing Management*, *124*, 224–238. https://doi.org/10.1016/j.indmarman.2024.11.017

27. Shankar, A., Gupta, R., Kumar, A., Biswas, B., & Rathore, B. (2025b). Exploring the adoption of Enterprise Metaverse in Business-to-Business (B2B) organisations. *Industrial Marketing Management*, *124*, 224–238. https://doi.org/10.1016/j.indmarman.2024.11.017

28. Šímová, T., Zychová, K., & Fejfarová, M. (2024). Metaverse in the Virtual Workplace. *Vision*, *28*(1), 19–34. https://doi.org/10.1177/09722629231168690

29. Sugiana, N. S. S., Hurriyati, R., Gaffar, V., Dirgantari, P. D., Widjajanta, B., Disman, D., Rahayu, A., & Wibowo, L. A. (2024). Metaverse integration in halal marketing: charting new avenues for promoting ethical consumption. *Journal of Islamic Marketing*.

https://doi.org/10.1108/JIMA-08-2023-0266

30. Tarnanidis, T. (2024). Consumer Experience and Decision-Making in the Metaverse. *Consumer Experience and Decision-Making in the Metaverse*, 1–314. https://doi.org/10.4018/979-8-3693-4167-4

31. Xu, C., Zhong, R., Li, C., & Yan, X. (2023). From Fiction to Reality: Harnessing the Power of Imaginative Narratives to Shape the Future of the Metaverse. *Journal of Metaverse*, *3*(2), 108–120. https://doi.org/10.57019/jmv.1277525

32. Zabel, C., O'Brien, D., & Natzel, J. (2023). Sensing the Metaverse: The microfoundations of complementor firms' dynamic sensing capabilities in emerging-technology ecosystems. *Technological Forecasting and Social Change*, *192*. https://doi.org/10.1016/j.techfore.2023.122562

33. Zaidan, A. S., Alshammary, K. M., Khaw, K. W., Yousif, M., & Chew, X. Y. (2023). Investigating Behavior of Using Metaverse by Integrating UTAUT2 and Self-efficacy. In *Lecture Notes in Networks and Systems: Vol. 895 LNNS*. https://doi.org/10.1007/978-3-031-51716-7_6