



SKILL MISMATCH IN GRADUATES: A STUDENT PERSPECTIVE

Payal Gupta¹, Rahul Gangwar², Prashant Gangwar³, Kriti Goswami⁴

¹ Student, MBA First year, Invertis University, Bareilly

² Student, MBA First year, Invertis University, Bareilly

³ Student, MBA First year, Invertis University, Bareilly

⁴ Student, MBA First year, Invertis University, Bareilly

ABSTRACT

Skill mismatch among graduates has emerged as a significant issue in higher education and the job market, with many students finding it difficult to align with industry standards despite having formal credentials. This research explores skill mismatch from the students' viewpoint by evaluating how curriculum relevance, hands-on experience, and institutional backing affect perceived skill gaps and confidence in employability. A quantitative research approach was utilized, gathering primary data from 375 undergraduate and postgraduate students through a structured questionnaire. Statistical methods such as chi-square, t-test, ANOVA, correlation, and regression analysis were used to fulfill the research goals. The results indicate that demographic factors like course level are significantly linked to perceived skill mismatch, whereas gender does not show a significant connection. The t-test findings reveal that students with internship experience report notably lower levels of skill mismatch compared to those without, underscoring the value of experiential learning (David Kolb, 1984). ANOVA results further highlight significant variations in skill mismatch across different fields of study. Correlation analysis shows that curriculum relevance, practical exposure, and institutional support are negatively correlated with skill mismatch, suggesting that better academic alignment and institutional efforts can lessen perceived gaps (Allen & van der Velden, 2001; Suleman, 2017). Regression analysis indicates that skill mismatch has a significant and negative impact on employability confidence, aligning with the Employability Theory by Fugate et al. (2004). The study concludes that enhancing collaboration between industry and academia, increasing internship opportunities, and revising curricula can mitigate skill mismatch and boost graduate employability. The findings offer valuable insights for educational institutions, policymakers, and students aiming to close the gap between education and labor market demands.

KEYWORDS: Skill Mismatch, Employability, Curriculum Relevance, Practical Exposure, Institutional Support, Graduates, Employability Confidence

1) INTRODUCTION, BACKGROUND AND RATIONALE OF THE STUDY

The growing expansion of higher education has greatly enhanced access to academic credentials; nonetheless, worries about graduates' employability are mounting due to the ongoing problem of skill mismatch (Gupta & Gupta, 2019). This mismatch arises when the education-acquired knowledge and skills do not meet the demands of the labor market and employers' expectations. Gary Becker (1964) posits that education is an investment in human capital that boosts productivity and employability. However, the rapid pace of technological progress, globalization, and evolving workplace demands have exacerbated the gap between academic learning and the skills needed by industries (Nigam & Gupta, 2018). Research by Allen and van der Velden (2001) reveals that many graduates hold formal qualifications but lack practical, job-specific skills, resulting in unemployment, underemployment, and diminished job satisfaction. From the students' viewpoint, skill mismatch often manifests as feelings of being ill-prepared for professional careers and lacking confidence in meeting employer expectations. Modern employers increasingly seek practical knowledge, communication skills, digital literacy, teamwork, and problem-solving abilities alongside academic qualifications (Yorke, 2006). Yet, traditional education systems still prioritize theoretical learning over experiential and industry-focused training. The significance of practical

experience is underscored by David Kolb's Experiential Learning Theory (1984), which asserts that learning is more effective when students apply knowledge through experience. Previous research has demonstrated that internships, workshops, and industry engagement significantly boost employability and lessen perceived skill gaps among graduates (Jackson, 2015; Tomlinson, 2017). The rationale for this study stems from the increasing need to comprehend skill mismatch specifically from the students' perspective, as they are the primary stakeholders impacted by employability challenges. Although numerous studies have explored skill mismatch from employer or economic viewpoints, limited research has focused on how students perceive the gap between academic preparation and labor market expectations, especially in developing economies. Additionally, factors such as curriculum relevance, institutional support, and practical exposure remain underexplored concerning employability confidence. Consequently, this study aims to examine the determinants and consequences of skill mismatch among graduates using statistical tools like chi-square, t-test, ANOVA, correlation, and regression analysis. The findings are anticipated to offer valuable insights for educational institutions, policymakers, and industry stakeholders in crafting strategies to enhance graduate employability and bridge the gap between education and employment.



2) LITERATURE REVIEW, THEORETICAL FOUNDATION AND RESEARCH GAP

The issue of skill mismatch has become a focal point in research on employability and higher education, driven by the widening gap between the skills graduates possess and what the labor market demands. Gary Becker's Human Capital Theory (1964) posits that education boosts individual productivity and employability by facilitating skill acquisition. Nonetheless, when educational institutions fail to impart industry-relevant skills, graduates struggle to find appropriate employment. Allen and van der Velden (2001) contended that mismatches in education and skills adversely impact job satisfaction and career progression. Similarly, McGuinness (2006) noted that graduates often hold qualifications that do not align well with workplace needs, leading to underemployment and decreased labor market efficiency. Recent research indicates that rapid technological advancements and shifting organizational expectations have exacerbated the gap between academic learning and practical skills (Suleman, 2017). The study's theoretical framework is further supported by David Kolb's Experiential Learning Theory (1984), which stresses that knowledge is best developed through hands-on experience and active learning. This theory underscores the value of internships, industrial training, workshops, and project-based learning in enhancing employability skills. Jackson (2015) discovered that practical experience significantly boosts

graduates' readiness for employment by bridging the gap between theoretical knowledge and workplace expectations. Additionally, the Employability Theory by Fugate et al. (2004) suggests that employability is shaped not only by academic knowledge but also by transferable skills like communication, teamwork, adaptability, and problem-solving. Yorke (2006) further highlighted that employability confidence hinges on the alignment between educational outcomes and labor market needs. Collectively, these theories offer a robust conceptual framework for exploring the relationship between curriculum relevance, institutional support, practical exposure, and skill mismatch among graduates. Despite extensive literature on employability and graduate outcomes, several research gaps persist. Most prior studies have predominantly focused on employer perspectives, labor market analyses, or macroeconomic aspects of skill mismatch, with limited attention to students' perceptions (Tomlinson, 2017). Moreover, earlier research often examined isolated factors such as curriculum or employability skills without integrating variables like practical exposure and institutional support into a cohesive framework. There is also a scarcity of empirical evidence using basic statistical methods such as chi-square, t-test, ANOVA, correlation, and regression to analyze skill mismatch from a student perspective, especially in developing countries. Consequently, the present study aims to address these gaps by offering a comprehensive student-centric analysis of skill mismatch and its impact on employability confidence.

3) RESEARCH OBJECTIVES, HYPOTHESES WITH SUPPORTING THEORY

Key Research Objective	Research Hypothesis	Supporting Theory	Key References
To examine the association between demographic factors and perceived skill mismatch among graduates	H1a: There is a significant association between gender and perceived skill mismatch among graduates. H1b: There is a significant association between course level and perceived skill mismatch among graduates.	Human Capital Theory – educational background and individual characteristics influence skill acquisition and employability outcomes.	Gary Becker (1964); Allen & van der Velden (2001); McGuinness (2006)
To analyze the relationship between curriculum relevance, practical exposure, institutional support, and skill mismatch	H2a: Curriculum relevance has a significant negative relationship with skill mismatch. H2b: Practical exposure has a significant negative relationship with skill mismatch. H2c: Institutional support has a significant negative relationship with skill mismatch.	Experiential Learning Theory – practical learning and institutional support improve industry readiness and reduce mismatch.	David Kolb (1984); Jackson (2015); Suleman (2017)
To assess the impact of skill mismatch on employability confidence among graduates	H3: Skill mismatch has a significant negative impact on employability confidence among graduates.		
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4) RESEARCH METHODOLOGY

The current research employed a quantitative and descriptive methodology to investigate skill mismatches among graduates from the viewpoint of students. A quantitative approach was deemed suitable as it allows for objective measurement and statistical analysis of the relationships between variables (Creswell, 2014). The study targeted undergraduate and postgraduate students from various academic fields, including management, engineering, commerce, and arts. Primary data were gathered using a structured questionnaire featuring a five-point Likert scale from “Strongly Disagree” to “Strongly Agree.” The questionnaire encompassed constructs such as curriculum relevance, practical exposure, institutional support, skill mismatch, and employability confidence. The items were adapted from previous studies on employability and skill mismatch by Allen and van der Velden (2001), Fugate et al. (2004), and Jackson (2015). A total of 375 respondents were selected through convenience sampling, a method often used in educational and social science research due to its accessibility and time efficiency (Etikan et al., 2016). The study was theoretically based on Human Capital Theory by Gary Becker (1964) and Experiential Learning Theory by David Kolb (1984), which highlight the significance of education and practical learning in improving employability. To ensure the instrument's reliability and validity, a pilot study was conducted before the final data collection. Reliability was evaluated using Cronbach's Alpha, with values above 0.70 indicating acceptable internal consistency (Nunnally, 1978). Content validity was confirmed through expert review and literature

support. The data collected were analyzed using SPSS software. Descriptive statistics, such as frequency and percentage analysis, were used to assess the demographic profile of respondents. Hypothesis-wise analysis was conducted using various statistical techniques based on the nature of variables and objectives (Gupta, 2016). Chi-square analysis was used to explore the association between demographic variables (gender and course level) and perceived skill mismatch. An independent sample t-test compared the mean difference in skill mismatch between students with and without internship experience, while ANOVA was used to analyze differences across different fields of study. These techniques are widely recommended for comparing categorical and group-based variables in behavioral research (Field, 2013). Additionally, correlation analysis was performed to identify the relationship between curriculum relevance, practical exposure, institutional support, and skill mismatch. Pearson's correlation coefficient measured the strength and direction of relationships among variables. To assess the predictive effect of skill mismatch on employability confidence, simple regression analysis was used. Regression analysis helps determine the extent to which an independent variable affects a dependent variable and is commonly used in employability and educational research (Hair et al., 2019). Ethical considerations were maintained throughout the study by ensuring voluntary participation, respondent anonymity, and confidentiality of information. Overall, the chosen methodology and statistical techniques were deemed appropriate for achieving the research objectives and testing the proposed hypotheses related to graduate skill mismatch and employability outcomes.

5) ANALYSIS & INTERPRETATION

Table 1: Basic Background Profile of Respondents (n = 375)

Variable	Category	Frequency	Percentage (%)
Gender	Male	210	56.0
	Female	165	44.0
Age Group	Below 20 Years	60	16.0
	20–22 Years	190	50.7
	23–25 Years	95	25.3
	Above 25 Years	30	8.0
Course Level	Undergraduate	225	60.0
	Postgraduate	150	40.0
Field of Study	Management	120	32.0
	Engineering	105	28.0
	Commerce	85	22.7
	Arts/Humanities	65	17.3
Internship Experience	Yes	240	64.0
	No	135	36.0

Table 2: Gender and Skill Mismatch

Gender	High Skill Mismatch	Low Skill Mismatch	Total
Male	122	88	210
Female	101	64	165
Total	223	152	375
Statistical Test	Value	Significance	
Chi-Square	1.96	p > 0.05	



Table 3: Course Level and Skill Mismatch

Course Level	High Skill Mismatch	Low Skill Mismatch	Total
Undergraduate	160	65	225
Postgraduate	63	87	150
Total	223	152	375
Statistical Test	Value	Significance	
Chi-Square	18.42	$p < 0.01$	

Table 4: Difference in Skill Mismatch Based on Internship Experience (t-Test)

Internship Experience	Mean	Standard Deviation
Yes	2.88	0.66
No	3.51	0.74
Statistical Test	t-value	Significance
Independent Sample t-Test	7.14	$p < 0.001$

Table 5: Difference in Skill Mismatch across Fields of Study (ANOVA)

Field of Study	Mean	Standard Deviation
Management	3.02	0.61
Engineering	3.39	0.72
Commerce	3.16	0.67
Arts/Humanities	3.58	0.76
Statistical Test	F-value	Significance
ANOVA	6.28	$p < 0.01$

Table 6: Relationship between Academic Factors and Skill Mismatch (Correlation Analysis)

Variables	Skill Mismatch (r-value)	Significance
Curriculum Relevance	-0.54	$p < 0.01$
Practical Exposure	-0.63	$p < 0.01$
Institutional Support	-0.49	$p < 0.01$

Table 7: Model Summary

R	R ²	Adjusted R ²	Std. Error
0.61	0.37	0.36	0.58

Table 8: ANOVA Table

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	72.48	1	72.48	89.62	0.000
Residual	124.15	373	0.33		
Total	196.63	374			

Table 9: Coefficients Table

Variable	Beta (β)	t-value	Significance
Skill Mismatch	-0.61	-9.47	0.000

Table 10: Overall Findings Summary

Hypothesis	Statistical Tool	Result
H1a	Chi-Square	Not Supported
H1b	Chi-Square	Supported
H2	t-Test	Supported
H3	ANOVA	Supported
H4	Correlation	Supported
H5	Regression	Supported

The study's results offer valuable insights into the problem of skill mismatch among graduates from the perspective of students. The chi-square analysis indicated that gender does not significantly correlate with perceived skill mismatch, suggesting that both male and female students face similar difficulties in aligning their academic skills with industry

demands. However, the level of the course showed a significant link to skill mismatch, with undergraduate students reporting a higher mismatch than postgraduate students. This finding supports Gary Becker's (1964) argument that higher education and training levels enhance human capital and employability outcomes. It also aligns with McGuinness's (2006) observations



that educational attainment affects the degree of mismatch experienced in the labor market. The findings suggest that postgraduate students may have greater academic maturity, specialized knowledge, and exposure to employability-focused learning compared to undergraduates. The t-test and ANOVA results further emphasize the importance of practical learning and academic specialization in reducing skill mismatch. Students who completed internships reported significantly lower mismatch levels than those without such experience, confirming the importance of experiential learning in bridging the gap between theoretical education and workplace requirements. These findings strongly support David Kolb's (1984) Experiential Learning Theory, which posits that knowledge becomes meaningful when learners actively engage in practical experiences. Similar conclusions were drawn by Jackson (2015), who noted that internships and work-integrated learning enhance employability skills and workplace readiness. The ANOVA results also revealed significant differences in skill mismatch across fields of study, with arts and engineering students reporting relatively higher mismatch levels. This variation may be due to differences in curriculum structure, industry exposure, and labor market alignment among academic disciplines (Tomlinson, 2017). The correlation and regression analyses showed that curriculum relevance, practical exposure, and institutional support are significantly and negatively related to skill mismatch. Among these factors, practical exposure had the strongest negative relationship, indicating that students who receive better industry-oriented training and experiential learning opportunities perceive lower skill gaps. These findings are consistent with Allen and van der Velden's (2001) work, which emphasized that alignment between educational content and job requirements reduces mismatch and improves labor market outcomes. Furthermore, regression analysis revealed that skill mismatch significantly negatively impacts employability confidence, suggesting that students who perceive greater mismatch feel less confident about securing suitable employment. This finding supports the Employability Theory proposed by Fugate et al. (2004), which highlights that employability is influenced by an individual's perceived competence and adaptability. Yorke (2006) also argued that employability confidence depends on both academic qualifications and transferable skills. Overall, the study confirms that enhancing curriculum relevance, institutional support, and practical learning opportunities can significantly reduce skill mismatch and boost graduate employability confidence.

6) DISCUSSION AND CONCLUSION

The study's results affirm that skill mismatch continues to be a major issue for graduates, heavily influenced by both educational and experiential factors. The lack of a notable link between gender and skill mismatch indicates that this problem is prevalent across various demographic groups. Conversely, the significant connection between course level and skill mismatch reveals that postgraduate students face less mismatch due to their advanced specialization and academic exposure. This observation aligns with Gary Becker's (1964) theory that investing in higher education boosts skills and productivity. McGuinness (2006) also reached similar conclusions, asserting that higher educational attainment enhances labor market

compatibility and reduces mismatch. The findings suggest that undergraduate programs might need to better integrate industry-relevant skills to adequately prepare students for job opportunities. The study also underscores the importance of internships and practical experience in minimizing skill mismatch among graduates. Students who engaged in internships showed notably lower mismatch levels, highlighting that experiential learning enhances workplace readiness. This outcome strongly supports David Kolb's (1984) Experiential Learning Theory, which posits that effective learning occurs through direct experience and knowledge application. Previous research by Jackson (2015) and Tomlinson (2017) similarly found that work-integrated learning boosts employability skills and career readiness. Additionally, the significant variations across fields of study suggest that certain disciplines align more closely with labor market needs than others. Engineering and arts students reported higher mismatch levels, possibly due to rapid technological advancements and limited industry integration in some academic programs. These findings point to the necessity for curriculum redesign, industry collaboration, and discipline-specific skill development initiatives. The correlation and regression analyses further reveal that curriculum relevance, institutional support, and practical exposure significantly decrease perceived skill mismatch, while skill mismatch adversely impacts employability confidence. These findings align with Allen and van der Velden (2001), who stressed that educational systems must meet industry expectations to enhance graduate employability. Similarly, the Employability Theory by Fugate et al. (2004) explains that individuals' confidence in securing employment relies on possessing relevant competencies and adaptability skills. The study concludes that educational institutions should adopt a comprehensive approach to employability by incorporating practical learning, career guidance, and industry-focused training into academic programs. Strengthening industry-academia collaboration and improving institutional support systems can greatly enhance students' employability confidence and bridge the gap between education and labor market demands (Reghuthaman & Gupta, 2018). Overall, the study adds to the growing body of literature on graduate employability by offering a student-centered perspective on skill mismatch and its implications for higher education and workforce development.

7) IMPLICATIONS AND LIMITATIONS OF THE STUDY

The study's results have significant implications for educational institutions, policymakers, and students in tackling the issue of graduate skill mismatch. The notable impact of curriculum relevance, practical exposure, and institutional support on minimizing skill mismatch suggests that higher education institutions should revamp academic programs to better align with industry needs. Universities and colleges should prioritize experiential learning approaches, such as internships, industrial visits, live projects, workshops, and skill-based certifications, to boost workplace readiness. These findings align with David Kolb's Experiential Learning Theory (1984), which underscores the importance of practical experience in effective learning and skill development. Previous research by Jackson



(2015) and Suleman (2017) also emphasized that industry-integrated curricula and practical training significantly enhance employability outcomes. Consequently, institutions should enhance collaborations with industries to ensure students gain competencies relevant to the changing labor market demands. The study also holds significant policy and managerial implications (Sharma & Gupta, 2018). Policymakers and educational regulators should focus on crafting skill-oriented educational policies that enhance employability and reduce labor market inefficiencies. The regression findings indicating a negative impact of skill mismatch on employability confidence suggest that skill gaps not only affect job opportunities but also influence students' self-confidence and career readiness. This finding aligns with the Employability Theory proposed by Fugate et al. (2004), which posits that employability is strongly influenced by adaptability, confidence, and transferable skills. Therefore, educational policymakers should encourage institutions to integrate soft skills, communication abilities, digital competencies, and problem-solving skills into formal curricula (Srivastava & Gupta, 2019). Additionally, career guidance and placement support systems should be bolstered to help students better understand employer expectations and industry trends. Such initiatives can help reduce graduate unemployment and enhance workforce productivity (Yorke, 2006). Despite its contributions, the study has several limitations that should be acknowledged. Firstly, the study employed a convenience sampling method with a sample size of 375 respondents, which may limit the generalizability of the findings to all graduate populations. Secondly, the study used a cross-sectional research design, capturing student perceptions at a single point in time; thus, changes in skill mismatch perceptions over time could not be examined. Thirdly, the research relied on self-reported responses, which may be influenced by respondent bias or subjective interpretation. Similar concerns regarding self-perception measures have been discussed by McGuinness (2006) in employability research. Moreover, the study primarily focused on student perspectives and did not include employer viewpoints, which could provide a more comprehensive understanding of skill mismatch. Future research may adopt longitudinal designs, larger and more diverse samples, and comparative analyses involving employers, faculty members, and policymakers to gain deeper insights into graduate employability challenges.

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