

Original Article

Parallel Mediation Analysis of Self-Efficacy and Career Aspiration in the Relationship between Achievement Motivation and Employability (A Study of Seventh-Semester FEB UNNES Students)

Adi Kurniawan¹✉, Nurul Kamilia²

^{1,2}Universitas Negeri Semarang.

Correspondence Author: adkurwn@students.unnes.ac.id✉

Abstract:

This study examines the effect of achievement motivation on employability through the mediating roles of self-efficacy and career aspiration among final-year students at the Faculty of Economics and Business, Universitas Negeri Semarang. The objective of this research is to explain how psychological mechanisms link motivation to employability within a university context. A quantitative approach was employed using survey data from 315 students and analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM), following established methodological guidelines for predictive models with latent constructs. The measurement model demonstrated satisfactory reliability and validity, with factor loadings exceeding 0.70 and composite reliability values above 0.90. The results indicate that achievement motivation has significant effects on self-efficacy, career aspiration, and employability. Self-efficacy and career aspiration both significantly influence employability and act as mediators, with career aspiration showing a stronger contribution. These findings confirm that employability is shaped by internal motivation, confidence, and future-oriented goals, providing theoretical support and practical implications for higher education institutions in strengthening students' career readiness.

Keywords: Achievement Motivation, Self-Efficacy, Career Aspiration, and Employability

Introduction

Technological transformation in the Industry 4.0 era continues to reshape the global labor market, where automation and digitalization demand workers who think critically, adapt quickly, and collaborate effectively ([Mudzar & Chew, 2022; Sony & Mekoth, 2022](#)). Universities are expected to prepare graduates who are academically

capable and ready to face rapidly changing professional environments ([Cheng, Adekola, Albia, & Cai, 2022](#); [Chigbu & Nekhwevha, 2022](#)). Employability is increasingly understood as a multidimensional construct shaped by motivational and cognitive factors that enable individuals to translate learning experiences into effective career outcomes. However, the transition from higher education to employment remains challenging. In early 2025, Indonesia recorded 7.28 million unemployed individuals, including over one million university graduates ([BPS, 2025](#)). Similar trends appear globally, showing that academic success does not always lead to professional readiness ([Cole et al., 2025](#); [Kassa, 2023](#)). This condition indicates a critical problem in higher education, namely the gap between academic attainment and graduates' ability to function effectively in the labor market. These conditions highlight employability as a key factor in preparing students for the labor market.

Previous studies show that employability develops through both institutional and psychological factors that shape how students respond to career challenges ([Baluku et al., 2021](#); [Ergün & Sezen, 2021](#)). Among these internal aspects, achievement motivation often appears as a key psychological force driving employability ([Chen, 2023](#)). Students with strong motivation usually invest more effort in self-development and become better prepared to meet professional demands ([Kausar et al., 2024](#); [Lisá, Sokolová, & Jablonická, 2023](#)). Some research confirms that achievement motivation enhances employability ([Tan, Li, & Yi, 2025](#); [Wang, Guo, Song, Hao, & Qiao, 2022](#)), while other findings indicate a non-significant relationship ([Anees, 2021](#)). These inconsistent findings suggest that achievement motivation may not directly influence employability, but instead operates through specific psychological mechanisms that explain how motivation is transformed into employable attitudes and behaviors. Such variations imply the presence of additional factors that may clarify how motivation influences employability.

Recent studies highlight self-efficacy and career aspiration as possible mediators that help explain how motivation relates to employability. Social Cognitive Career Theory conceptualizes self-efficacy as individuals' beliefs in their capability to perform tasks and manage career-related challenges, enabling motivated students to translate intentions into effective actions. Research shows that self-efficacy functions as a connecting mechanism between self-managed career behavior and perceived employability, suggesting that confidence in one's abilities helps turn motivation into actions relevant to future employment ([Almeida et al., 2022](#)). Other findings indicate that students with clear career aspirations tend to engage in more purposeful learning experiences that enhance their readiness for professional life ([Wang et al., 2022](#)). Career aspiration provides goal direction that guides motivated individuals in selecting, sustaining, and intensifying career-related efforts. These perspectives suggest that self-efficacy and career aspiration may contribute in different ways to understanding how motivation shapes employability across various contexts.

This study investigates the impact of achievement motivation on employability through the parallel mediation of self-efficacy and career aspirations among seventh-semester students in the Faculty of Economics and Business at Universitas Negeri Semarang. The objective of this study is to explain the psychological mechanisms through which achievement motivation influences employability by simultaneously examining the mediating roles of self-efficacy and career aspiration. Integrating both mediators within a single framework provides a deeper understanding of how confidence and career direction emerge from achievement-driven behavior, a connection that has

received limited attention in earlier research. A quantitative approach was used to analyze how internal motivation develops into employable attitudes and actions, emphasizing the psychological mechanisms that guide students in preparing for professional life. By uncovering these pathways, the research contributes to a more comprehensive view of employability development and provides insights for universities to strengthen students' confidence, goal clarity, and competitiveness in an increasingly dynamic labor market.

Literature Review and Hypothesis Development

Achievement Motivation on Self-Efficacy, Career Aspirations, and Employability

Employability has become a crucial outcome for higher education, reflecting graduates' capacity to secure and sustain meaningful work in dynamic labor markets ([Hasan, Alam, & Sharmin, 2024](#); [Tight, 2023](#)). Despite strong academic preparation, many graduates still experience difficulties in translating their competencies into labor market readiness, highlighting employability as a critical research problem in higher education. Among the internal factors that enhance employability, achievement motivation plays a central role in driving students to pursue excellence and develop career-relevant competencies ([Li, Pu, & Phakdeephriot, 2024](#)). Empirical findings from prior studies confirm that achievement motivation significantly predicts students' employability, as a strong desire for success encourages individuals to build the skills and attitudes necessary to succeed in dynamic labor markets ([Almeida et al., 2022](#); [Chen, 2023](#)). Achievement motivation also fosters employability through perseverance, self-regulation, and continuous improvement ([Aisyawati, Suryaratri, & Akbar, 2024](#); [Ayvaz & Elhatip, 2025](#)). Based on Social Cognitive Career Theory, self-efficacy, outcome expectations, and goal setting interact to explain how internal drives such as achievement motivation are translated into proactive behaviors that foster career development ([Brown & Lent, 2013](#)). This theoretical perspective provides a coherent framework for interpreting the relationships among achievement motivation, self-efficacy, career aspirations, and employability in this study. Consequently, achievement motivation serves as a fundamental internal factor that promotes a learning orientation and adaptive behavior, thereby enhancing employability.

Achievement motivation not only contributes directly to employability but also influences self-efficacy and career aspirations, which function as key psychological mechanisms in this relationship. Self-efficacy refers to an individual's belief in their ability to organize and execute actions required to achieve desired results ([Bandura, 1997](#)). Empirical evidence indicates that students with higher achievement motivation tend to display stronger self-efficacy beliefs, as their desire for success enhances confidence in their ability to overcome challenges and achieve learning goals ([Akayuure & Akayuure, 2024](#); [Dong, Hassan, Hassan, Chen, & Guo, 2024](#)). Higher levels of self-efficacy strengthen persistence and adaptive coping, which contribute to success in academic and career contexts. Furthermore, achievement motivation also drives individuals to translate confidence into purposeful direction through the development of career goals. Career aspirations, defined as individuals' long-term goals and expectations regarding their desired career paths ([Gottfredson, 1981](#)), guide motivation toward learning and professional growth that align with future objectives. Empirical findings confirm that achievement motivation significantly shapes students' career aspirations, as individuals with a strong drive for success tend to set clearer and more ambitious career goals aligned with their desired professional paths ([Bala, 2025](#); [Wang et al., 2022](#)). These findings indicate that achievement motivation enhances employability not only directly

but also indirectly through greater self-belief and goal clarity.

H1: Achievement motivation has a significant effect on Employability.

H2: Achievement motivation has a significant effect on Self-efficacy

H3: Achievement motivation has a significant effect on Career aspirations

Self-Efficacy and Career Aspirations on Employability

Self-efficacy and career aspirations represent psychological pathways that explain how internal motivation develops into employable attitudes and actions. Self-efficacy beliefs function as mechanisms through which motivation shapes career interests, educational and occupational choices, and success in academic and professional settings ([Brown & Lent, 2013](#)). Empirical evidence demonstrates that self-efficacy positively predicts employability, as individuals with stronger confidence in their abilities exhibit higher adaptability and readiness to meet professional demands ([Li, Pu, & Liao, 2022](#); [Zhou, Peng, & Zhou, 2023](#)). Students with strong self-efficacy are more likely to engage in proactive behaviors, persist in achieving goals, and effectively manage challenges encountered during the transition from education to employment.

Career aspirations also enhance employability by directing individuals toward purposeful career goals. Students with clear and ambitious aspirations tend to align their learning and skill development with labor market expectations, as a salient vision of their future career encourages proactive exploration and preparation for employability ([Ma, Hou, Cai, Gao, & Jiang, 2024](#); [Schettino, Marino, & Capone, 2022](#)). When career aspirations are clearly defined, individuals are more willing to invest in continuous learning and career-related activities that strengthen their employability potential ([Lai, Zhang, Sze, & Lim, 2025](#)). Together, self-efficacy and career aspirations form the psychological foundation that enables students to transform internal motivation into employable competencies and readiness for future professional demands.

H4: Self-efficacy has a significant effect on employability.

H5: Career aspirations have a significant effect on employability.

Self-Efficacy and Career Aspirations as Mediator

Self-efficacy represents a crucial psychological pathway through which achievement motivation contributes to employability development. According to Social Cognitive Career Theory, self-efficacy refers to individuals' confidence in their ability to perform tasks and achieve expected outcomes, representing an essential factor in regulating effort and persistence toward success ([Bandura, 1997](#)). Self-efficacy has been found to mediate the link between achievement motivation and employability, suggesting that individuals who believe in their competence are more capable of converting motivational drive into proactive learning and career behaviors that enhance employability readiness ([Almeida et al., 2022](#)). This mechanism explains how motivation is translated into employable actions rather than remaining an internal intention.

Career aspirations also act as a mediating pathway linking motivation and employability by channeling internal drives into specific career goals. Achievement motivation has also been found to influence employability indirectly through the strengthening of career aspirations, as motivated students tend to set clearer long-term

goals and maintain greater persistence in pursuing them ([Wang et al., 2022](#)). Taken together, these findings indicate that self-efficacy and career aspirations function as parallel mediators connecting achievement motivation to employability among university students.

H6: Self-efficacy mediates the relationship between achievement motivation and employability.

H7: Career aspirations mediate the relationship between achievement motivation and employability.

Methods

This study employs a quantitative research approach, which is suitable for examining relationships among variables using numerical data and statistical analysis, as commonly described in quantitative research methodology ([Sugiyono, 2019](#)). The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4, which is appropriate for predictive models involving multiple mediators and complex latent constructs. The research focused on seventh-semester students of the Faculty of Economics and Business, Universitas Negeri Semarang (FEB UNNES), who were preparing their career plans after graduation. The population consisted of 1,575 students, from whom data were collected through an online questionnaire distributed via Google Forms. Each item was measured using a five-point Likert scale, which is widely applied in behavioral and educational research ([Koo & Yang, 2025](#)), where 1 indicated “strongly disagree” and 5 indicated “strongly agree.” A total of 315 responses were obtained using a purposive sampling technique, and the sample size followed the guidelines proposed by ([Hair Jr et al., 2021](#)), recommending five to ten times the number of indicators in the most complex construct.

The questionnaire consisted of 60 items adapted from established instruments to suit the context of FEB UNNES students. Achievement Motivation was measured using the Achievement Motives Scale ([Lang & Fries, 2006](#)), Self-Efficacy using the General Self-Efficacy Scale ([Schwarzer & Jerusalem, 1995](#)), Career Aspiration using the Career Aspiration Scale-Revised (CAS-R) ([Gregor & O'Brien, 2016](#)), and Employability using the Self-Perceived Employability Scale ([Rothwell, Jewell, & Hardie, 2009](#)). To ensure data quality, validity, and reliability, tests were conducted at the initial analysis stage. The analytical process involved evaluating the measurement model (outer model) for construct validity and reliability, and the structural model (inner model) to examine the strength and direction of relationships, including both direct and mediating effects among variables.

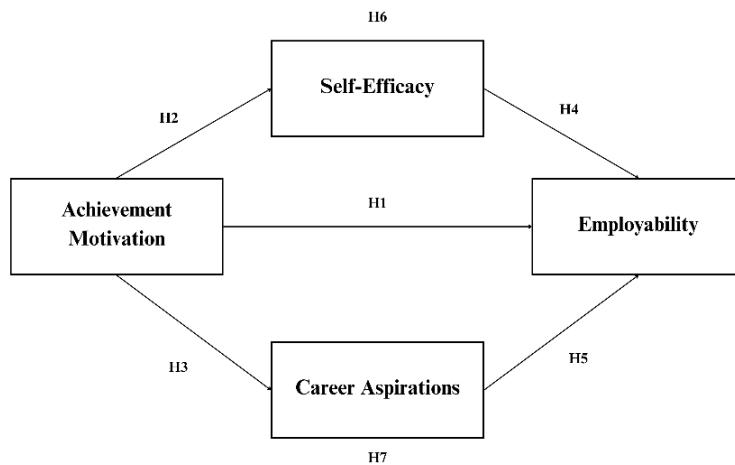


Figure 1. Research Framework

Results

Table 1 presents the demographic characteristics of the 315 respondents. Based on gender, most were male (63.8%) and female (36.2%). In terms of academic program, most respondents were from Management (65.1%), followed by Accounting (15.6%), Development Economics (11.1%), and Economic Education (8.3%). Regarding post-graduation plans, most intended to work in government or state-owned enterprises (43.5%), while others planned to work in private companies (20%), engage in entrepreneurship (18.4%), pursue further education (9.8%), or were undecided (8.3%).

Table 1. Respondent Demographics

	Categories	Frequency (n)	Percentage (%)
Gender	Man	201	63.8%
	Woman	114	36.2%
Academic Program	Management	205	65.1%
	Accounting	49	15.6%
Post-Graduation Plans	Development Economics	35	11.1%
	Economic Education	26	8.3%
Employment in a government agency or state-owned enterprise		137	43.5%
Employment in a private company		63	20%
Entrepreneurship		58	18.4%
Pursuing further education		31	9.8%
Undecided		26	8.3%

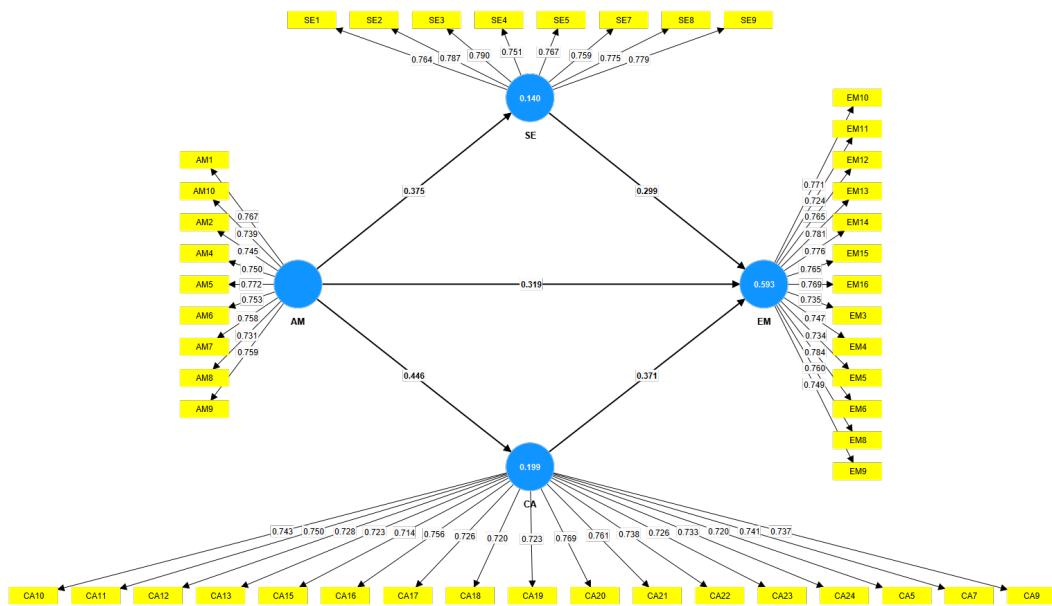


Figure 2. Research Framework

Figure 2 illustrates the structural model estimated using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method, which explains the relationships among four latent variables: Achievement Motivation (AM), Self-Efficacy (SE), Career Aspiration (CA), and Employability (EM). Several reflective indicators represent each variable, and the high outer loading values indicate a strong degree of similarity within each construct, with a minimum acceptable value of 0.70. The R-squared values shown in the blue circles indicate that Self-Efficacy, Career Aspiration, and Employability are well explained by the predictors in the model, with Employability showing the highest proportion of explained variance. The path coefficients indicate that Achievement Motivation has a positive effect on Self-Efficacy (0.375), Career Aspiration (0.446), and Employability (0.319), while Self-Efficacy (0.299) and Career Aspiration (0.371) also have a positive influence on Employability. Overall, the model demonstrates that Self-Efficacy and Career Aspiration act as parallel mediators that enhance the effect of Achievement Motivation on Employability, supported by a strong model structure and valid indicators.

Table 2. Outer Loading Test

Variable	Indicator	Outer Loading	AVE	Results
Achievement Motivation	AM1	0.767		
	AM2	0.745		
	AM4	0.75		
	AM5	0.772		
	AM6	0.753	0.567	Valid
	AM7	0.758		
	AM8	0.731		
	AM9	0.759		
	AM10	0.739		
Self-Efficacy	SE1	0.764	0.595	Valid

Variable	Indicator	Outer Loading	AVE	Results
Career Aspirations	SE2	0.787	0.542	Valid
	SE3	0.79		
	SE4	0.751		
	SE5	0.767		
	SE7	0.759		
	SE8	0.775		
	SE9	0.779		
	CA5	0.72		
	CA7	0.741		
	CA9	0.737		
	CA10	0.743		
	CA11	0.75		
	CA12	0.728		
	CA13	0.723		
	CA15	0.714		
	CA16	0.756		
	CA17	0.726		
	CA18	0.72		
	CA19	0.723		
	CA20	0.769		
	CA21	0.761		
	CA22	0.738		
	CA23	0.726		
	CA24	0.733		
Employability	EM3	0.735	0.576	Valid
	EM4	0.747		
	EM5	0.734		
	EM6	0.784		
	EM8	0.76		
	EM9	0.749		
	EM10	0.771		
	EM11	0.724		
	EM12	0.765		
	EM13	0.781		
	EM14	0.776		
	EM15	0.765		
	EM16	0.769		

Table 2 presents the results of the convergent validity test through the outer loading and average variance extracted (AVE) values. All indicators in each variable have outer loading values above 0.70, ranging from 0.714 to 0.79, indicating that each indicator contributes significantly to its respective construct. The AVE values for each variable are also above the threshold of 0.50, with Achievement Motivation at 0.567, Self-Efficacy at 0.595, Career Aspiration at 0.542, and Employability at 0.576. These results show that each construct has good convergent validity, meaning that more than half of the variance of each indicator is explained by its underlying

variable. Thus, all indicators in the variables Achievement Motivation, Self-Efficacy, Career Aspiration, and Employability are valid and reliable for measuring the intended constructs in this research.

Table 3. Reliability Test

Variable	Cronbach's Alpha	Composite Reliability (Rho_A)	Composite Reliability (Rho_C)
Achievement Motivation	0.904	0.905	0.922
Self-Efficacy	0.903	0.905	0.922
Career Aspirations	0.947	0.948	0.953
Employability	0.939	0.939	0.946

Table 3 shows that all constructs in this study exhibit excellent reliability. The values of Cronbach's Alpha and Composite Reliability for Achievement Motivation (0.904; 0.905; 0.922), Self-Efficacy (0.903; 0.905; 0.922), Career Aspiration (0.947; 0.948; 0.953), and Employability (0.939; 0.939; 0.946) all exceed the required reliability standard of 0.70. These results indicate a very high level of internal consistency across all constructs, confirming that the measurement indicators are stable and consistent in representing their respective variables. Therefore, the instrument used in this study is reliable and appropriate for further testing within the structural model analysis.

Table 4. R² Test

Variable	R-square	R-square adjusted
Self-Efficacy	0.14	0.138
Career Aspirations	0.199	0.196
Employability	0.593	0.589

Table 4 shows the R-square and adjusted R-square values that indicate the percentage of variance explained by the predictors in the model. The Self Efficacy variable has an R-square value of 0.140, meaning that 14% of its variance is explained by Achievement Motivation, while the remaining 86% is affected by other factors outside the model. Career Aspiration has an R-square value of 0.199, showing that Achievement Motivation accounts for 19.9% of its variance. Employability has the highest R-square value of 0.593, indicating that 59.3% of its variance is explained by Achievement Motivation, Self-Efficacy, and Career Aspiration. These findings indicate that the model provides a strong explanation for Employability, while the explanation for Self-efficacy and Career Aspiration is relatively smaller.

Table 5. F² Test

Variable	Achievement Motivation	Career Aspirations	Employability	Self-Efficacy
Achievement Motivation		0.248	0.189	0.163
Self-Efficacy			0.175	

Variable	Achievement Motivation	Career Aspirations	Employability	Self-Efficacy
Career Aspirations			0.251	
Employability				

Table 5 shows the results of the F-square (f^2) test, which measures the contribution of each exogenous variable to the endogenous variable in the model. The analysis indicates that Achievement Motivation has a small effect on Self-Efficacy ($f^2 = 0.163$) and Employability ($f^2 = 0.189$), while its influence on Career Aspiration ($f^2 = 0.248$) is relatively higher compared to the other variables. Self-efficacy shows a small contribution to Employability ($f^2 = 0.175$), whereas Career Aspiration has a stronger effect on Employability ($f^2 = 0.251$). These results suggest that Achievement Motivation contributes more strongly to Career Aspiration than to Self-Efficacy and Employability, while Career Aspiration plays a more dominant role than Self-Efficacy in influencing Employability.

Table 6. Q² Predict

Variable	Q ² predict
Self-Efficacy	0.128
Career Aspirations	0.187
Employability	0.347

Based on Table 6, the Q²_predict values for Self Efficacy (0.128), Career Aspiration (0.189), and Employability (0.347) are all greater than zero, indicating that the model has predictive relevance for each of these endogenous variables. The results show that the model has a relatively low predictive ability for Self-Efficacy, a higher predictive ability for Career Aspiration, and the strongest predictive ability for Employability. This means that the model can predict data patterns effectively, especially in explaining variations in Employability as the main outcome variable.

Table 7. Path Coefficients

Hypothesis	Original sample	Sample mean	Standard deviation	T statistics	P values
AM → EM	0.319	0.319	0.069	4.636	0.000
AM → SE	0.375	0.378	0.07	5.316	0.000
AM → CA	0.446	0.448	0.067	6.624	0.000
SE → EM	0.299	0.3	0.067	4.451	0.000
CA → EM	0.371	0.373	0.069	5.411	0.000
AM → SE → EM	0.112	0.113	0.033	3.393	0.001
AM → CA → EM	0.165	0.167	0.041	4.048	0.000

Notes:

AM = Achievement Motivation

SE = Self-Efficacy

CA = Career Aspirations

Table 7 presents the results of hypothesis testing, which illustrate the magnitude and significance of both direct and indirect relationships among the variables in the model. The analysis shows that all hypothesized paths are statistically significant ($p < 0.05$; $t > 1.96$), meaning that every proposed hypothesis is accepted and none are rejected. These results confirm that achievement motivation, self-efficacy, and career aspiration each play an important role in shaping employability. Achievement motivation exerts a significant influence on employability ($\beta = 0.319$, $t = 4.636$, $p = 0.000$), self-efficacy ($\beta = 0.375$, $t = 5.316$, $p = 0.000$), and career aspiration ($\beta = 0.446$, $t = 6.624$, $p = 0.000$), suggesting that motivated students tend to develop stronger confidence, clearer career goals, and better employability outcomes. Self-efficacy ($\beta = 0.299$, $t = 4.451$, $p = 0.000$) and career aspiration ($\beta = 0.371$, $t = 5.411$, $p = 0.000$) also have significant effects on employability, reinforcing their roles as mediating variables. The indirect effects further demonstrate significance, where achievement motivation enhances employability through self-efficacy ($\beta = 0.112$, $t = 3.393$, $p = 0.001$) and career aspiration ($\beta = 0.165$, $t = 4.048$, $p = 0.000$). These findings indicate that students with strong motivation tend to develop clearer career goals and higher self-belief, which in turn enhances their employability.

Discussion

This study was conducted to address the problem of how achievement motivation contributes to employability among final-year students and to clarify the psychological mechanisms underlying this relationship. Guided by Social Cognitive Career Theory, the findings demonstrate that employability is not formed solely by motivation, but through the interaction between motivational drive, self-belief, and career direction.

The results show that achievement motivation has a direct and significant effect on employability. This finding indicates that students with strong achievement motivation tend to engage more actively in behaviors that support career readiness, such as skill development and proactive career planning. This result supports recent studies emphasizing that motivation encourages persistence and self-development as essential foundations of employability ([Almeida et al., 2022](#); [Chen, 2023](#)).

Achievement motivation also significantly influences self-efficacy, confirming that motivated students are more likely to develop confidence in their ability to perform academic and professional tasks. According to Social Cognitive Career Theory, self-efficacy plays a central role in translating motivation into effective action. This finding aligns with recent evidence showing that confidence strengthens individuals' resilience and adaptability in career-related contexts ([Akayuure & Akayuure, 2024](#); [Dong et al., 2024](#)).

Achievement motivation significantly affects career aspiration. Motivated students tend to form clearer career goals that guide their learning and professional development. This result is consistent with recent research indicating that motivation directs individuals to define and pursue long-term career objectives ([Bala, 2025](#); [Wang et al., 2022](#)). Clear career aspirations enable students to align their academic experiences with future employment requirements, thereby strengthening employability.

The mediating analysis clarifies the research problem by demonstrating that self-efficacy and career aspiration function as parallel mechanisms linking achievement motivation to employability. Students with strong motivation develop higher confidence and clearer career direction, which together enhance employability outcomes. This pattern is consistent with recent studies emphasizing that self-belief and goal clarity are key processes through which motivation translates into employable attributes (Ma et al., 2024; Zhou et al., 2023).

Overall, the findings confirm that the research objectives have been achieved. Employability among final-year students is shaped not only by achievement motivation but also by the development of self-efficacy and career aspiration as proposed by Social Cognitive Career Theory. These results highlight the importance of integrated interventions that simultaneously enhance motivation, confidence, and career clarity to better prepare students for the transition from higher education to the labor market.

Conclusion

This study confirms that achievement motivation contributes to employability among final-year students by strengthening self-efficacy and clarifying career aspirations. These internal factors function as psychological pathways that transform motivation into employable attitudes and behaviors, indicating that employability development depends not only on external opportunities but also on students' confidence and career direction. The findings provide theoretical support for the integrated role of motivation, self-efficacy, and career aspiration in shaping career readiness.

Several limitations should be acknowledged. The cross-sectional design restricts interpretation of changes over time, and the focus on a single faculty limits generalizability. Future studies may adopt longitudinal or comparative designs across institutions and incorporate additional variables such as career exploration or organizational support to extend understanding of employability development in higher education.

References

Aisyawati, M. S., Suryaratri, R. D., & Akbar, Z. (2024). *International Journal of Multicultural and Multireligious Understanding Self-regulated learning and Self-Perceived Employability : Causality Analysis in Final Year Students*. 490–499.

Akayuure, F. A., & Akayuure, P. (2024). Examining fresh students' achievement motivation and self-efficacy towards learning high school mathematics. *Contemporary Mathematics and Science Education*, 5(2), ep24012. <https://doi.org/10.30935/conmaths/14691>

Almeida, L. S., Kumar, T., Pozo-rico, T., Pu, R., Li, X., Rattanakosin, T., & Pathom, N. (2022). *The influence of achievement motivation on college students' employability: A chain mediation analysis of self-efficacy and academic performance*. (October), 1–14. <https://doi.org/10.3389/fpsyg.2022.972910>

Anees, S. (2021). *Achievement Motivation and Perceived Employability Amongst Prospective Teachers of Graduate Teacher Education Program*. 9(4), 4–10.

Ayvaz, Ahmet, & Elhatip, Yaser Emir. (2025). From Perseverance of Effort to Perceived Employability in First-Generation College Students: The Mediating

Role of Career Adaptability and Career Engagement. *Journal of Career Assessment*, 10690727251313788. <https://doi.org/10.1177/10690727251313789>

Bala, M. H. (2025). *Achievement Motivation as a Predictor of Career Decision Making : A Study on Himachal Pradesh Students*. 3(7), 2032–2038.

Baluku, M. M., Mugabi, E. N., Nansamba, J., Matagi, L., Onderi, P., & Otto, K. (2021). Psychological Capital and Career Outcomes among Final Year University Students: the Mediating Role of Career Engagement and Perceived Employability. *International Journal of Applied Positive Psychology*, 6(1), 55–80. <https://doi.org/10.1007/s41042-020-00040-w>

Bandura, A. (1997). Self-efficacy: The exercise of control. *Self-efficacy: The exercise of control*, hal. ix, 604–ix, 604. New York, NY, US: W H Freeman/Times Books/ Henry Holt & Co.

BPS. (2025). *Tingkat Pengangguran Terbuka (TPT) sebesar 4,76 persen, Rata-rata Upah Buruh sebesar 3,09 Juta Rupiah*. Badan Pusat Statistik (BPS). Diambil dari <https://www.bps.go.id/id/pressrelease/2025/05/05/2432/tingkat-pengangguran-terbuka--tpt--sebesar-4-76-persen--rata-rata-upah-buruh--sebesar-3-09-juta-rupiah-.html>

Brown, S. D., & Lent, R. W. (2013). Social cognitive model of career self-management: Toward a unifying view of adaptive career behavior across the life span. *Journal of Counseling Psychology*, 60(4), 557–568.

Chen, D. (2023). Study on the Achievement Motivation and Employability of Higher Vocational College Students—An Empirical Analysis Based on a Medical and Healthcare Vocational College in Guangzhou. *Adult and Higher Education*, 5(15), 123–126. <https://doi.org/10.23977/aduhe.2023.051519>

Cheng, M., Adekola, O., Albia, J., & Cai, S. (2022). Employability in higher education: a review of key stakeholders' perspectives. *Higher Education Evaluation and Development*, 16(1), 16–31. <https://doi.org/10.1108/heed-03-2021-0025>

Chigbu, B. I., & Nekhwevha, F. H. (2022). Academic-faculty environment and graduate employability: variation of work-readiness perceptions. *Heliyon*, 8(3), e09117. <https://doi.org/10.1016/j.heliyon.2022.e09117>

Cole, D., Alberto, J., Trigoso, C., Caro, O. C., Marín, Y. R., Luis, J., & Guevara, M. (2025). *Career paths and university education: factors that determine the employment status of university graduates*. (October), 1–19. <https://doi.org/10.3389/feduc.2025.1664249>

Dong, J., Hassan, N. C., Hassan, A. Bin, Chen, D., & Guo, W. (2024). Effect of Achievement Motivation and Self-Efficacy on General Well-Being among Students at Normal Universities in Ningxia: The Mediating Role of Time Management. *Behavioral Sciences*, 14(1). <https://doi.org/10.3390/bs14010015>

Ergün, M., & Şesen, H. (2021). A Comprehensive Study on University Students' Perceived Employability: Comparative Effects of Personal and Contextual Factors. *SAGE Open*, 11(3). <https://doi.org/10.1177/21582440211036105>

Gottfredson, L. S. (1981). Circumscription and compromise: A developmental theory of occupational aspirations. *Journal of Counseling Psychology*, 28(6), 545–579. <https://doi.org/10.1037/0022-0167.28.6.545>

Gregor, M. A., & O'Brien, K. M. (2016). Understanding Career Aspirations Among Young Women: Improving Instrumentation. *Journal of Career Assessment*, 24(3), 559–572. <https://doi.org/10.1177/1069072715599537>

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S.

(2021). Partial Least (PLS-SEM) Using R Equation Modeling Squares Structural. In *Springer* (Vol. 30).

Hasan, M., Alam, M. J., & Sharmin, D. (2024). The role of higher education for sustainable employment in Bangladesh. *Discover Sustainability*, 5(1). <https://doi.org/10.1007/s43621-024-00778-2>

Kassa, E. T. (2023). Exploring Employability of Business Graduates: Evidence from Woldia University. *Journal of the Knowledge Economy*, 14(2), 1033–1051. <https://doi.org/10.1007/s13132-021-00856-0>

Kausar, T., Kausar, T., Fatima, F., Naureen, A., Yasmeen, S., Noreen, S., ... Ahmad, F. (2024). *Analysis of Achievement, Motivation and Self-Efficacy among Undergraduate Nursing Students*. 98–102.

Koo, M., & Yang, S. (2025). *Likert-Type Scale*. 1–11.

Lai, J. W., Zhang, L., Sze, C. C., & Lim, F. S. (2025). Learning Analytics for Bridging the Skills Gap: A Data-Driven Study of Undergraduate Aspirations and Skills Awareness for Career Preparedness. *Education Sciences*, 15(1). <https://doi.org/10.3390/educsci15010040>

Lang, J. W. B., & Fries, S. (2006). A revised 10-item version of the achievement motives scale: Psychometric properties in German-speaking samples. *European Journal of Psychological Assessment*, 22(3), 216–224. <https://doi.org/10.1027/1015-5759.22.3.216>

Li, X., Pu, R., & Liao, H. (2022). *The impacts of innovation capability and social adaptability on undergraduates' employability: The role of self-efficacy*. (November), 1–17. <https://doi.org/10.3389/fpsyg.2022.954828>

Li, X., Pu, R., & Phakdeephirot, N. (2024). The interrelationships between emotional intelligence, achievement motivation and students' employability: exploring the mediating effect of self-efficacy. *Education + Training*, 66(7), 738–754. <https://doi.org/10.1108/ET-12-2021-0464>

Lisá, E., Sokolová, L., & Jablonická, P. (2023). *Motivation to succeed is not enough: motivated students need to know how to plan / organize their steps on their way to success*. (June), 1–12. <https://doi.org/10.3389/fpsyg.2023.1119409>

Ma, Y., Hou, L., Cai, W., Gao, X., & Jiang, L. (2024). Linking undergraduates' future work self and employability: a moderated mediation model. *BMC Psychology*, 1–14. <https://doi.org/10.1186/s40359-024-01530-1>

Mudzar, N. M. B. M., & Chew, K. W. (2022). Change in Labour Force Skillset for the Fourth Industrial Revolution: A Literature Review. *International Journal of Technology*, 13(5), 969–978. <https://doi.org/10.14716/ijtech.v13i5.5875>

Rothwell, A., Jewell, S., & Hardie, M. (2009). Self-perceived employability: Investigating the responses of post-graduate students. *Journal of Vocational Behavior*, 75(2), 152–161. <https://doi.org/10.1016/j.jvb.2009.05.002>

Schettino, G., Marino, L., & Capone, V. (2022). *The Impact of University-Related Variables on Students' Perceived Employability and Mental Well-Being: An Italian Longitudinal Study*.

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Ed.), *Measures in Health Psychology: A User's Portfolio. Causal and Control Beliefs* (hal. 35–37). Windsor, UK: NFER-NELSON.

Sony, M., & Mekoth, N. (2022). Employee adaptability skills for Industry 4.0 success: a road map. *Production and Manufacturing Research*, 10(1), 24–41.

https://doi.org/10.1080/21693277.2022.2035281

Sugiyono, P. D. (2019). metode penelitian pendidikan (kuantitatif, kualitatif, kombinasi, R&D dan penelitian pendidikan). *Metode Penelitian Pendidikan*, 67, 18.

Tan, J., Li, J., & Yi, X. (2025). How Can General Self-Efficacy Facilitate Undergraduates' Employability? A Multiple Mediation Model. *Behavioral Sciences*, 15(4), 1–16. https://doi.org/10.3390/bs15040514

Tight, M. (2023). Employability: a core role of higher education? *Research in Post-Compulsory Education*, 28(4), 551–571. https://doi.org/10.1080/13596748.2023.2253649

Wang, D., Guo, D., Song, C., Hao, L., & Qiao, Z. (2022). General Self-Efficacy and Employability Among Financially Underprivileged Chinese College Students: The Mediating Role of Achievement Motivation and Career Aspirations. *Frontiers in Psychology*, 12(January), 1–11. https://doi.org/10.3389/fpsyg.2021.719771

Zhou, D., Peng, Z., & Zhou, H. (2023). The influence of career decision-making self-efficacy on employability of higher vocational students: mediated by emotional intelligence. *Frontiers in Education*, 8(December). https://doi.org/10.3389/feduc.2023.1274430