

Explaining academic career success through self-efficacy, job satisfaction, and professional networking: A moderated mediation model

Muhammad Umar Data^{1*}, Siti Haerani², Jusni Ambo Upe³, Mahlia Muis⁴

^{1,2,3}Hasanuddin University, Indonesia; umar.kosmis@gmail.com (M.U.D.) sitihaerani@unhas.ac.id (S.H.)

jusniamboupe@fe.unhas.ac.id (J.A.U.) mahliamuis@fe.unhas.ac.id (M.M.).

Abstract: Drawing upon Social Cognitive Career Theory (SCCT), this study examines the effects of self-efficacy, job satisfaction, and professional networking on lecturer performance and career success in private higher education institutions in Makassar. It also investigates the mediating role of lecturer performance and the moderating role of perceived organizational support. A quantitative research design was employed using survey data from 357 lecturers, which were analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings indicate that self-efficacy, job satisfaction, and professional networking significantly enhance lecturer performance, which, in turn, positively influences career success. Lecturer performance also mediates the relationships between these antecedent variables and career success. However, perceived organizational support does not significantly moderate the relationship between lecturer performance and career success. These findings suggest that personal capabilities, psychological factors, and professional relationships play a more critical role in academic career success than organizational support. This study extends SCCT by emphasizing the importance of personal agency and social capital in academic career development. Practically, the findings provide guidance for higher education institutions in designing strategies to strengthen lecturer performance, foster professional networking, and promote sustainable career development.

Keywords: Career success, Job satisfaction, Lecturer performance, Professional networking, Self-efficacy.

1. Introduction

Higher education institutions (HEIs) play a crucial role in developing skilled and adaptable human capital equipped to respond effectively to the challenges of an increasingly complex global landscape [1]. Beyond knowledge transfer, universities foster character, critical thinking, and workforce readiness [2]. In Indonesia, private higher education institutions (PTS) play a significant role in expanding access to higher education. Nevertheless, these institutions continue to face various challenges, including quality assurance, institutional competitiveness, and limited resources, particularly in meeting accreditation standards and requirements [3]. A key issue is the uneven distribution of institutional quality. In Makassar, for instance, only 3 out of 55 PTS (around 5%) achieved “Excellent” accreditation in 2025, while most were rated “Good,” highlighting persistent structural challenges in improving academic performance and institutional quality.

In this context, the role of the Higher Education Service Institution Region IX Sultan Batara (LLDIKTI Region IX Sultan Batara) becomes increasingly important in strengthening the governance and quality of private higher education institutions through academic supervision, institutional assistance, lecturer development programs, and support for accreditation improvement. Through its strategic initiatives, LLDIKTI Region IX Sultan Batara is expected to enhance institutional capacity, improve lecturer performance, and encourage sustainable academic career development among lecturers in Eastern Indonesia, particularly in the Makassar region.

Table 1.

Presents the distribution of private higher education institutions (PTS) in Makassar City based on institutional type and accreditation status in 2025.

No.	PTS Cluster	Accreditation			Number of PTS
		Excellent	Very Good	Good	
1	Universities	2	1	16	19
2	Institutes	0	2	3	5
3	Colleges	1	6	24	31
Total		3	9	43	55

Source: LLDIKTI Region IX Sultan Batara, 2025

The majority of private higher education institutions in Makassar have not yet attained higher accreditation levels, highlighting the necessity for continuous improvements in academic quality and institutional effectiveness [4]. Lecturer performance is a critical factor in determining institutional success, as lecturers are responsible for implementing the three fundamental functions of higher education: teaching, research, and community service. Their contributions significantly affect accreditation outcomes, research productivity, and the quality of graduates produced by higher education institutions [5].

However, lecturers in private universities often face structural challenges, including limited research funding, high administrative workloads, and restricted access to professional networks, which may hinder performance and career progression [6]. Previous studies highlight self-efficacy, job satisfaction, and professional networking as key determinants of performance and career success, although findings remain inconsistent across contexts.

Perceived organizational support is considered a contextual factor that can enhance the relationship between individual competencies and career outcomes through the provision of resources, assistance, and developmental opportunities [7].

This study seeks to address the need for a deeper understanding of how personal, relational, and organizational factors interact in influencing lecturer performance and career success. The research contributes to the literature by integrating these variables into a comprehensive framework, incorporating organizational support as a moderating factor, and offering empirical evidence from the private higher education sector in Makassar. In doing so, it extends the application of Social Cognitive Career Theory (SCCT) within institutional environments characterized by resource limitations [8].

1.1. Theoretical Framing: Social Cognitive Career Theory

Social Cognitive Career Theory (SCCT), developed by Lent and Brown [9] based on Albert Bandura's Social Cognitive Theory, conceptualizes career development as a dynamic process resulting from the interaction of personal characteristics, behavioral factors, and environmental influences. The theory highlights several key constructs, including self-efficacy, outcome expectations, personal goals, and contextual conditions that shape career-related decisions and outcomes.

Contextual factors are divided into proximal influences (e.g., institutional support, resources) and distal influences (e.g., organizational culture, policies), which differ in their direct impact on career outcomes [10]. SCCT emphasizes that career success is shaped by the interaction between individual capabilities and environmental conditions, including organizational support and professional networks [11].

In this study, SCCT provides the theoretical framework for examining the influence of self-efficacy, job satisfaction, and professional networking on lecturer performance and career success. In addition, perceived organizational support is incorporated as a contextual, moderating factor within the proposed research model [12].

1.2. Research Context

This study was conducted in private higher education institutions located in Makassar, one of the major educational hubs in Eastern Indonesia [13]. The city hosts a substantial number of private higher education institutions that contribute significantly to expanding access to higher education and fostering the development of regional human capital [14]. Based on data from LLDIKTI Region IX Sultan Batara, the city hosts 55 private higher education institutions, comprising universities, institutes, and colleges [15].

Table 2.

Illustrates the distribution of lecturers across private higher education institutions in Makassar City.

PTS Cluster	Number of Lecturers
University	2,360
Institute	151
College	866
Total	3,377

Source: Based on data from LLDIKTI Region IX Sultan Batara (2025)

Despite this growth, many institutions face challenges related to academic quality and competitiveness, with most remaining in mid-level accreditation categories [16]. Lecturer performance is a critical factor, as lecturers are responsible for teaching, research, and community service [17]. Despite ongoing professional-development efforts, career advancement among lecturers remains relatively constrained, with a large proportion occupying early and intermediate academic ranks due to challenges such as inadequate research funding, excessive workloads, and insufficient institutional support [18]. These conditions highlight the importance of examining how individual and organizational factors interact in influencing lecturer performance and career success [19].

1.3. Research Hypotheses

Based on the proposed conceptual framework, a series of hypotheses was developed to examine the relationships among the variables included in this study [20]. Specifically, self-efficacy (X1), job satisfaction (X2), and professional networking (X3) are hypothesized to have positive effects on faculty performance (Y) (H1–H3). These three antecedent variables are also expected to positively influence career success (Z) (H4–H6). Furthermore, faculty performance (Y) is hypothesized to positively contribute to career success (Z) (H7).

In addition, lecturer performance (Y) is proposed to act as a mediating mechanism through which self-efficacy (X1), job satisfaction (X2), and professional networking (X3) influence career success (Z) (H8–H10). Furthermore, perceived organizational support (M) is hypothesized to function as a moderating variable that strengthens the positive relationship between lecturer performance (Y) and career success (Z) (H11).

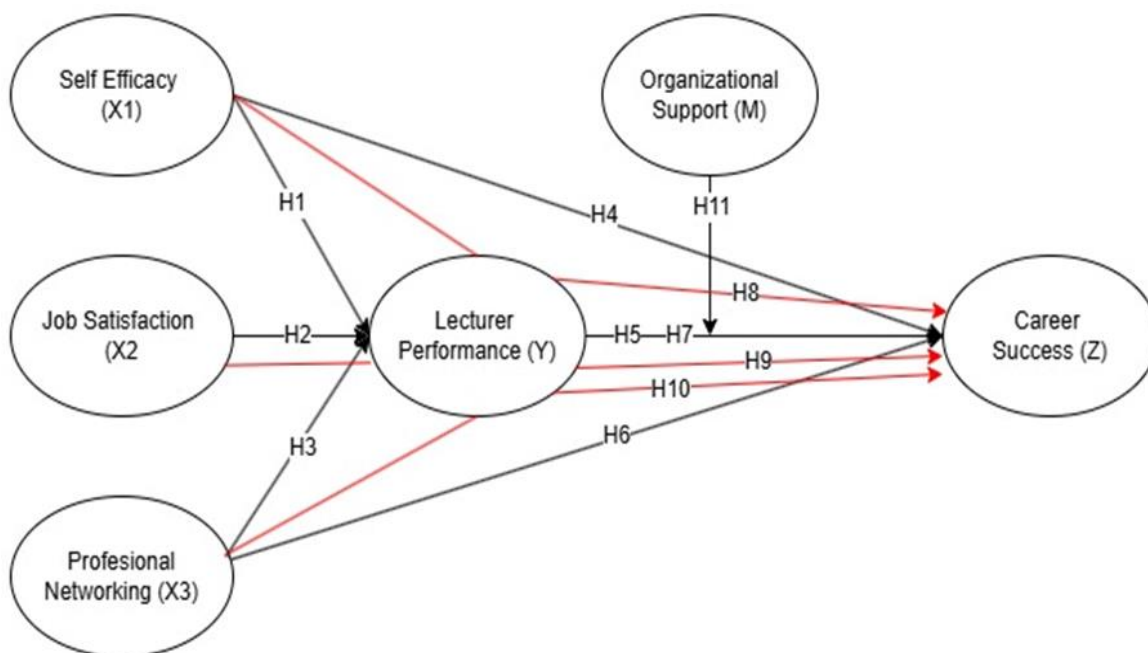


Figure 1.
Research Conceptual Framework.

2. Methods

2.1. Research Design

This research adopts a quantitative, descriptive, and explanatory approach to investigate the influence of self-efficacy, job satisfaction, and professional networking on lecturer performance and career success, while considering organizational support as a moderating factor [17].

2.2. Research Setting and Sample

The study was conducted across 55 private higher education institutions in Makassar, Indonesia. The population comprised 3,377 permanent lecturers. To ensure adequate representation across academic ranks, a proportional stratified random sampling method was employed. The sample size was calculated using Slovin's formula with a 5% margin of error, yielding a total of 357 respondents [21].

Table 3.

Presents the distribution of the study sample according to the academic ranks of lecturers at private higher education institutions in Makassar City.

No.	Academic Rank	Number of Lecturers	Proportional Allocation	Sample Size
1.	Lecturer	2,528	$2,528 / 3,377 \times 357$	267
2.	Associate Professor	694	$694 / 3,377 \times 357$	73
3.	Professor	155	$155 / 3,377 \times 357$	17
Total		3,377		357

Source: LLDIKTI Region IX Sultan Batara 2025.

2.2. Data Collection

Primary data were collected using structured questionnaires based on a five-point Likert scale. In addition, secondary data were obtained from academic literature and institutional documents to support the contextual interpretation of the findings [22].

2.3. Measures and Instruments

All study variables were measured using validated instruments, and the reliability and validity of the measurement scales were assessed before the data analysis process [23].

Table 4.
Operational Definitions and Measurement of Variables.

Variable	Operational Definition	Indicators	Measurement
Self-Efficacy	Belief in the ability to perform academic tasks.	Teaching, Research, Community Service, Professional Development, Academic Management [24]	Likert 1–5
Job Satisfaction	Contentment with work and environment	Recognition, Career Opportunities, Tri Dharma, Facilities, Compensation [25]	Likert 1–5
Professional Networking	The extent and quality of professional relationships that facilitate collaboration, information exchange, and career development.	Academic Relationships, Sustainable Professional Connections, Network Diversity, Access to Opportunities, Professional Position, Trust [26]	Likert 1–5
Organizational Support	Lecturers' perceptions of the extent to which the institution values their contributions and provides necessary support.	Reward Systems, Training Opportunities, Resource Availability, Workload Balance, Fairness, Social Support [26]	Likert 1–5
Lecturer Performance	The extent to which lecturers effectively and productively perform their responsibilities in teaching, research, and community service as part of the Tri Dharma of Higher Education.	Teaching Performance, Research Productivity, Community Service Activities, Institutional Contribution, Professional Competence [27]	Likert 1–5
Career Success	The achievement of desirable career outcomes and personal fulfillment throughout an academic career.	Academic Promotion, Publication Achievement, Income Growth, Career Satisfaction, Professional Pride, Professional Impact [28]	Likert 1–5

Source: Adapted from the synthesis of previous studies and journal review results (2025).

2.4. Data Analysis

The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), which is appropriate for examining complex relationships among multiple constructs. The analytical procedure consisted of two main stages [29]:

- 1) Evaluation of the measurement model to assess the validity and reliability of the constructs;
- 2) Evaluation of the structural model to examine the hypothesized relationships, coefficient of determination (R^2), and bootstrapping results.

In addition, moderation analysis was performed to investigate whether organizational support affected the strength of the relationship between lecturer performance and career success [30].

3. Findings

3.1. Respondent Profile

A total of 357 lecturers representing 31 private higher education institutions (PTS) in Makassar participated in this study [31]. The gender composition was relatively balanced, consisting of 52.9% male and 47.1% female respondents. The majority of participants were in the mid-career stage, with 52.4% falling within the 40–49 age category [32].

With regard to educational qualifications, most respondents possessed a master's degree (79.3%) [33]. In terms of academic rank, the majority were classified as lecturers, accounting for 60.5% of the sample. Regarding career progression, nearly half of the respondents (49.3%) reported requiring between three and five years to attain their current academic rank. Furthermore, 45.7% of the respondents reported a monthly income ranging between IDR 5 million and IDR 10 million [34]. The

sample also reflected diverse levels of teaching experience, ranging from less than five years to more than twenty years, demonstrating considerable variation in professional and academic backgrounds [35].

3.2. Descriptive Analysis

The descriptive analysis indicates that lecturers demonstrated a very high level of self-efficacy ($M = 4.40$) and strong performance ($M = 4.35$), reflecting substantial confidence and effectiveness in carrying out teaching, research, and community-service responsibilities [36]. Professional networking was also rated highly ($M = 4.13$), suggesting that respondents maintained active and productive professional relationships within their academic communities [37].

Job satisfaction was found to be moderately high ($M = 3.52$), while organizational support received a positive evaluation ($M = 3.84$). Nevertheless, compensation and workload balance emerged as aspects requiring further improvement [38]. In terms of career outcomes, respondents reported a high level of career success ($M = 3.94$), particularly with respect to their academic contributions and sense of professional pride [39].

3.3. Measurement Model

3.3.1. Indicator Reliability

Indicator reliability was evaluated using standardized factor loadings, where a threshold value of 0.70 was applied to confirm that each indicator adequately represented its corresponding latent construct [40].

Table 5.

Presents the standardized factor loadings for all measurement indicators across the study constructs.

Construct	Number of Indicators	Range of Loadings	Lowest Loading	Highest Loading
Organizational Support	6	0.810 – 0.899	0.810	0.899
Self-Efficacy	5	0.831 – 0.885	0.831	0.885
Job Satisfaction	6	0.742 – 0.827	0.742	0.827
Professional Networking	6	0.722 – 0.863	0.722	0.863
Performance	5	0.722 – 0.862	0.722	0.862
Career Success	6	0.747 – 0.941	0.747	0.941

All factor loadings exceeded the recommended threshold of 0.70, indicating satisfactory indicator reliability [40]. The loading ranges observed across the constructs demonstrate consistent indicator performance and an adequate representation of the underlying latent variables [41]. In particular, perceived organizational support and career success recorded the highest maximum loading values, indicating their strong contribution to explaining lecturers' career development outcomes [42].

A pilot study involving lecturers from private higher education institutions was conducted to evaluate the clarity, validity, and reliability of the research instrument [43]. The results indicated that all constructs satisfied the recommended reliability standard, as evidenced by Cronbach's alpha coefficients that exceeded the accepted threshold of 0.70 [40]. The reliability analysis produced Cronbach's alpha coefficients of 0.88 for self-efficacy, 0.85 for job satisfaction, 0.87 for professional networking, 0.90 for organizational support, 0.86 for lecturer performance, and 0.89 for career success [44]. These values indicate a high level of internal consistency across all measurement scales [45]. These results provide evidence that the instrument was reliable and suitable for administration in the main survey [46].

3.4. Internal Consistency Reliability and Convergent Validity

Internal consistency reliability was evaluated using Composite Reliability (CR) [47]. Values of 0.70 or above were regarded as evidence of acceptable construct reliability, indicating that the indicators consistently measured their respective latent constructs [41].

Table 6.
Construct Reliability and Convergent Validity Assessment.

Construct	Composite Reliability (CR)	Average Variance Extracted (AVE)
Organizational Support	0.950	0.758
Self-Efficacy	0.933	0.735
Professional Networking	0.899	0.598
Job Satisfaction	0.908	0.622
Performance	0.897	0.637
Career Success	0.950	0.759

All constructs exhibited satisfactory internal consistency reliability, as indicated by Composite Reliability (CR) values exceeding the recommended threshold of 0.70 [40]. Furthermore, convergent validity was established, with all Average Variance Extracted (AVE) values surpassing the minimum criterion of 0.50 [40]. These results indicate that the constructs adequately explain the variance of their respective indicators and confirm the suitability of the measurement model for further structural model analysis [41].

3.5. Discriminant Validity

Discriminant validity was evaluated using the Fornell–Larcker criterion [48]. According to this criterion, the square root of the Average Variance Extracted (AVE) for each construct should exceed its correlations with all other constructs included in the model [48].

Table 7.
Discriminant Validity Assessment Using the Fornell–Larcker Criterion.

Construct	OS	SE	PN	JS	CS	PERF
Organizational Support (OS)	0.871					
Self-Efficacy (SE)	0.084	0.857				
Professional Networking (PN)	0.526	0.465	0.773			
Job Satisfaction (JS)	0.793	0.220	0.484	0.789		
Career Success (CS)	0.756	0.297	0.428	0.695	0.871	
Performance (PERF)	0.556	0.454	0.661	0.505	0.533	0.798

The results show that the square root of the Average Variance Extracted (AVE) for each construct, as represented by the diagonal elements, is greater than its correlations with all other constructs in the model [29]. These findings provide evidence of satisfactory discriminant validity, indicating that each latent construct is empirically distinct and exhibits stronger associations with its own indicators than with indicators belonging to other constructs [49]. Therefore, the measurement model meets the established criteria for discriminant validity and is deemed appropriate for further structural model evaluation [40].

The findings suggest that respondents were able to clearly differentiate among self-efficacy, job satisfaction, professional networking, perceived organizational support, lecturer performance, and career success, thereby confirming the distinctiveness of these constructs [12]. These findings strengthen the robustness and credibility of the measurement model by indicating that each construct consistently reflects its intended concept without substantial overlap or ambiguity [50]. Consequently, the measurement model satisfies the established discriminant validity requirements and provides a reliable foundation for subsequent structural model evaluation and hypothesis testing [40].

3.6. Structural Model

The structural model explained 50.9% of the variance in lecturer performance and 65.0% of the variance in career success, reflecting a moderate to substantial level of explanatory power [17]. Furthermore, the Standardized Root Mean Square Residual (SRMR) values were below the recommended cutoff value of 0.10, indicating an acceptable level of model fit [51]. The Q^2 values

further indicated that the model demonstrated moderate to strong predictive relevance [52].

3.7. Hypothesis Testing

The bootstrapping analysis revealed that self-efficacy, job satisfaction, and professional networking exerted significant effects on both lecturer performance and career success [17]. In addition, lecturer performance was found to mediate the relationships between these antecedent variables and career success [53]. However, the moderating effect of organizational support on the relationship between lecturer performance and career success was not found to be statistically significant [54]. This finding is consistent with the principles of Social Cognitive Career Theory (SCCT), which emphasize the role of personal agency and professional engagement as important determinants of academic career advancement [11]. In this context, organizational support appears to operate as a more distal contextual factor rather than as a direct mechanism that strengthens career outcomes [55].

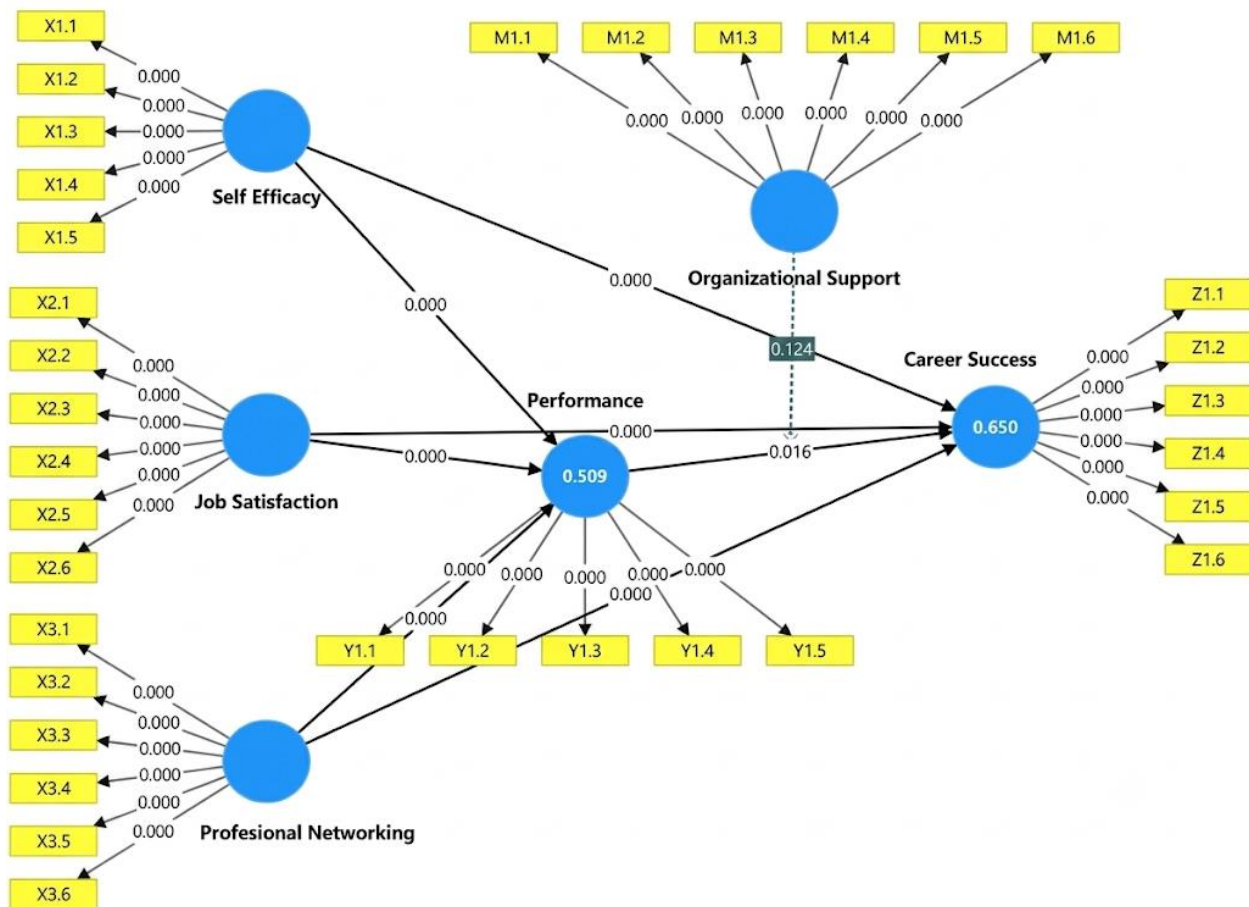


Figure 2.
Bootstrapping Results.

3.8. Interpretation of Hypothesis Testing Results

The results indicate that self-efficacy, job satisfaction, and professional networking exert significant direct effects on both lecturer performance and career success [17]. These findings provide strong empirical support for the core assumptions of Social Cognitive Theory and Social Cognitive Career Theory (SCCT), which emphasize the role of personal beliefs, motivational factors, and social resources in influencing professional outcomes [11]. Consistent with SCCT, lecturers who possess strong

confidence in their abilities, derive satisfaction from their academic roles, and actively cultivate professional networks are more likely to leverage these resources to enhance their performance and achieve favorable career outcomes [56].

The analysis further demonstrates that lecturer performance serves as a central mediating variable in the relationship between these antecedent factors and career success [53]. This finding underscores the importance of sustained academic performance as a key mechanism through which personal and professional resources contribute to career advancement [57]. Within the SCCT framework, performance achievements represent a critical behavioral outcome that connects cognitive, affective, and social factors with long-term career accomplishments [11]. Consequently, the results affirm that career success in higher education is not solely driven by individual attributes or professional relationships but also depends on the extent to which these resources are translated into consistent and high-quality academic performance [19].

Notably, perceived organizational support did not exhibit a statistically significant moderating effect on the relationship between lecturer performance and career success [58]. This result indicates that career advancement within private higher education institutions may depend more heavily on individual initiative, personal capabilities, and professional engagement than on institutional support mechanisms alone [59]. In other words, lecturers who demonstrate strong performance are likely to achieve career success regardless of the level of organizational support they perceive [12].

From the perspective of Social Cognitive Career Theory (SCCT), these findings suggest that environmental support functions primarily as a contextual or distal factor rather than as a direct mechanism that strengthens the relationship between performance and career outcomes [11]. Such a pattern may be particularly evident in higher education environments where promotion systems are highly structured, merit-based incentives are limited, or career advancement procedures lack transparency and clarity [60]. Under these conditions, career success may be determined more by individual achievements and professional contributions than by organizational support initiatives [61].

4. Discussion

The findings of this study demonstrate that self-efficacy, job satisfaction, and professional networking significantly affect both lecturer performance and career success, thereby providing empirical support for the fundamental propositions of Social Cognitive Theory (SCT) and Social Cognitive Career Theory (SCCT) [62]. These results emphasize the importance of individual, motivational, and relational factors in shaping academic performance and long-term career outcomes within higher education institutions [63].

Self-Efficacy. The results indicate that self-efficacy plays a crucial role in enhancing lecturer performance and career success [64]. Lecturers with high confidence in their abilities are more likely to approach academic responsibilities with determination, persist in the face of challenges, and effectively carry out teaching, research, and community service activities [65]. Such confidence contributes to higher levels of performance, which in turn facilitate career advancement and professional achievement [66]. Furthermore, the significant mediating role of lecturer performance suggests that self-efficacy influences career success not only directly but also indirectly through enhanced academic performance [67]. This finding underscores the SCCT proposition that performance accomplishments serve as a key mechanism through which personal beliefs are translated into successful career outcomes [68].

Job Satisfaction: The findings indicate that job satisfaction significantly contributes to lecturer performance and career success [53]. Lecturers with higher levels of job satisfaction tend to demonstrate stronger work engagement, greater intrinsic motivation, and more positive attitudes toward their academic responsibilities [69]. These characteristics enhance their effectiveness in teaching, increase research productivity, and encourage active participation in institutional activities [70]. Furthermore, the mediating role of lecturer performance suggests that the influence of job satisfaction on career success operates primarily through enhanced performance outcomes [53]. This finding implies that positive work-related attitudes are translated into career advancement when they

are reflected in tangible academic achievements and professional contributions [71].

Professional Networking: The findings indicate that engagement in professional academic networks plays an important role in facilitating access to knowledge, collaborative opportunities, mentorship, and various career-related resources [72]. Such networking activities enhance lecturers' ability to improve their academic performance through knowledge sharing and collaborative engagement [73]. In turn, this enhanced performance contributes to greater career success, highlighting the importance of social capital as a key determinant of academic career advancement [74].

Lecturer Performance as Mediator: Lecturer performance functions as a key behavioral mechanism that connects personal and relational resources to career outcomes [75]. This finding underscores the central role of performance as a conduit through which psychological and social factors are translated into tangible career achievements [76]. In line with Social Cognitive Career Theory (SCCT), this finding reinforces the notion that demonstrated competence and performance accomplishments serve as proximal determinants of career success and act as the most immediate predictors of positive career trajectories [68].

Perceived Organizational Support: The findings reveal that perceived organizational support does not significantly moderate the relationship between lecturer performance and career success, contrary to the proposed hypothesis [58]. This outcome indicates that career advancement in private higher education settings is driven more by individual agency, professional capabilities, and active engagement in academic roles than by institutional support structures [77].

Within the SCCT framework, this suggests that environmental support may not always operate as a strengthening mechanism in the translation of performance into career outcomes [11]. Instead, it is more appropriately conceptualized as a distal contextual factor that provides general resources and conditions for development [9]. The absence of a significant moderating effect may be attributed to structural characteristics of higher education institutions, such as formalized promotion procedures, limited differentiation in rewards, and constrained merit-based incentives, where career success is primarily determined by individual performance achievements rather than organizational facilitation [78].

4.1. Implications for Higher Education Institutions

Overall, the findings underscore the important roles of both individual capabilities and institutional contexts in influencing academic performance and career outcomes within higher education settings [79]. Self-efficacy, job satisfaction, and professional networking represent critical personal and relational resources that drive lecturer performance. However, institutional support plays an equally important role in enabling lecturers to convert their performance into career advancement [12].

For private universities, these findings carry several strategic implications. First, institutions are encouraged to strengthen professional development programs designed to enhance lecturers' self-confidence, pedagogical effectiveness, and research capabilities [80]. Second, improvements in working conditions and recognition systems may enhance lecturers' job satisfaction and strengthen their academic engagement [81]. Third, universities are encouraged to promote collaborative research networks that connect lecturers with both national and international academic communities, thereby strengthening knowledge exchange and research productivity [82].

Most importantly, institutional policies should ensure that lecturer performance is supported by adequate resources and clear, transparent career pathways. By aligning organizational support with performance management systems, universities can promote sustainable academic career development and enhance overall institutional competitiveness [83].

4.2. Contribution of the Study

This study contributes to the existing literature by integrating psychological, relational, and organizational factors into a unified framework to explain lecturer career success in private higher education institutions [84]. While previous research has typically examined these determinants in

isolation, the present study demonstrates how their combined and interactive effects shape lecturer performance and subsequent career outcomes [12]. By linking self-efficacy, job satisfaction, and professional networking to both lecturer performance and career success, this research provides a more holistic understanding of the mechanisms underlying academic career development [17].

Moreover, by focusing on private universities in Makassar, this study provides empirical evidence from a higher education context that remains relatively underrepresented in the global academic literature [85]. Much of the existing research on academic careers has been conducted in developed higher education systems, resulting in a limited understanding of career dynamics within developing institutional contexts [86].

The findings extend the current understanding of academic career development by demonstrating how individual capabilities, professional relationships, and institutional support collectively shape career trajectories [86]. In this regard, the study provides valuable insights that may inform institutional policies and strategic initiatives aimed at enhancing lecturer development and promoting sustainable academic career advancement in comparable higher education contexts [87].

5. Conclusions

This study investigated the relationships among self-efficacy, job satisfaction, professional networking, lecturer performance, and career success, while also evaluating the moderating role of organizational support among lecturers in private higher education institutions in Makassar [88]. The findings demonstrate that individual psychological factors, workplace attitudes, and professional relationships play important roles in shaping academic performance and career development [89].

The results indicate that self-efficacy, job satisfaction, and professional networking significantly enhance lecturer performance [17]. Lecturers with strong confidence in their academic abilities, higher levels of job satisfaction, and extensive professional networks tend to exhibit greater engagement in teaching, research, and community service activities [90]. These findings highlight the important role of both intrinsic motivation and external professional relationships in strengthening academic productivity [91].

Furthermore, the study confirms that lecturer performance has a significant effect on career success [92]. Academic achievements in teaching, research productivity, and institutional contributions constitute the foundation for professional advancement within higher education institutions [93]. Importantly, the findings also indicate that organizational support strengthens the relationship between lecturer performance and career success, suggesting that institutional resources, policies, and recognition systems play a crucial role in translating individual performance into career advancement [94].

Overall, this study underscores the importance of integrating individual capabilities, professional collaboration, and institutional support in fostering sustainable academic career development [19]. Strengthening these interrelated factors may enable private universities to enhance lecturer performance while simultaneously supporting long-term career success within academia [95].

5.1. Future Research Directions

Although this study provides important insights into the relationships among self-efficacy, job satisfaction, professional networking, lecturer performance, and career success, several directions remain open for future research to further expand and deepen this line of inquiry.

First, future research may consider incorporating additional variables that could influence academic career development, such as leadership style, organizational culture, research collaboration intensity, and digital academic engagement [93]. Including these factors would provide a more comprehensive understanding of the institutional and environmental conditions that shape lecturer performance and career success [96].

Second, this study was limited to private higher education institutions in Makassar. Future research may extend the scope of analysis to other regions or conduct comparative studies between private and

public universities to determine whether similar relationships are observed across different institutional contexts. In addition, cross-regional or cross-country comparative research could provide broader insights into how variations in higher education systems influence academic career trajectories [97].

Third, this study employed a cross-sectional research design, capturing the relationships among variables at a single point in time [98]. Future research is encouraged to adopt a longitudinal approach to provide deeper insights into the dynamic development of lecturer performance and career success across different stages of academic careers [99].

Finally, future research may benefit from the use of mixed-method approaches that combine quantitative analysis with qualitative techniques, such as interviews or case studies [100]. Such approaches could provide a more in-depth understanding of lecturers' experiences, motivations, and challenges in pursuing academic career advancement [101].

By following these research directions, future studies can enhance the understanding of academic career development and support the development of more effective policies for lecturer development within higher education institutions [56].

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Copyright:

© 2026 by the authors. This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

References

- [1] M. Ul Hassan, A. Murtaza, and K. Rashid, "Redefining higher education institutions (HEIs) in the era of globalisation and global crises: A proposal for future sustainability," *European Journal of Education*, vol. 60, no. 1, p. e12822, 2025. <https://doi.org/10.1111/ejed.12822>
- [2] P. A. Igwe, U. C. Okolie, and C. V. Nwokoro, "Towards a responsible entrepreneurship education and the future of the workforce," *The International Journal of Management Education*, vol. 19, no. 1, p. 100300, 2021. <https://doi.org/10.1016/j.ijme.2019.05.001>
- [3] A. Welch and E. A. Aziz, *Higher education in Indonesia. In International handbook on education in South East Asia*. Singapore: Springer Nature Singapore, 2022.
- [4] A. Rosser, "Higher education in Indonesia: The political economy of institution-level governance," *Journal of Contemporary Asia*, vol. 53, no. 1, pp. 53–78, 2023. <https://doi.org/10.1080/00472336.2021.2010120>
- [5] M. K. Sott and M. S. Bender, "The role of adaptive leadership in times of crisis: A systematic review and conceptual framework," *Merits*, vol. 5, no. 1, p. 2, 2025. <https://doi.org/10.3390/merits5010002>
- [6] C. F. Izuakor *et al.*, "Promotion incentives and the dynamics of research motivation among Technical and Vocational Education and Training lecturers in Nigerian universities," *Discover Education*, vol. 5, no. 1, p. 148, 2026. <https://doi.org/10.1007/s44217-026-01201-w>
- [7] A. T. Maan, G. Abid, T. H. Butt, F. Ashfaq, and S. Ahmed, "Perceived organizational support and job satisfaction: A moderated mediation model of proactive personality and psychological empowerment," *Future Business Journal*, vol. 6, no. 1, p. 21, 2020. <https://doi.org/10.1186/s43093-020-00027-8>
- [8] C. Jian, D. Zou, and N. Mahadi, "Social media, digital literacy, and career competence: A mixed methods study among university students in China," *Frontiers in Psychology*, vol. 16, p. 1700213, 2025. <https://doi.org/10.3389/fpsyg.2025.1700213>
- [9] R. W. Lent and S. D. Brown, "Social cognitive approach to career development: An overview," *The Career Development Quarterly*, vol. 44, no. 4, pp. 310–321, 1996. <https://doi.org/10.1002/j.2161-0045.1996.tb00448.x>
- [10] J. Trullen, N. Hassan, M. J. Morley, and M. Valverde, "The devolution of human resource management responsibilities to line managers: A multi-level analysis of contextual influences," *The International Journal of Human Resource Management*, vol. 35, no. 8, pp. 1547–1576, 2024. <https://doi.org/10.1080/09585192.2024.2317720>
- [11] D. Wang, X. Liu, and H. Deng, "The perspectives of social cognitive career theory approach in current times," *Frontiers in Psychology*, vol. 13, p. 1023994, 2022. <https://doi.org/10.3389/fpsyg.2022.1023994>

- [12] L. Li, K. Kanchanapoom, J. Deeprasert, N. Duan, and Z. Qi, "Unveiling the factors shaping teacher job performance: Exploring the interplay of personality traits, perceived organizational support, self-efficacy, and job satisfaction," *BMC Psychology*, vol. 13, no. 1, p. 14, 2025. <https://doi.org/10.1186/s40359-024-02324-1>
- [13] M. Ramaditya, M. S. Maarif, J. Affandi, and A. Sukmawati, "Improving private higher education strategies through fuzzy analytical hierarchy process: Insight from Indonesia," *International Journal of Management in Education*, vol. 17, no. 4, pp. 415-433, 2023. <https://doi.org/10.1504/IJMIE.2023.131221>
- [14] L. Cao, "Localizing human resource development through higher education: Local education clusters involving universities and regional stakeholders in China," *Cogent Education*, vol. 11, no. 1, p. 2402147, 2024. <https://doi.org/10.1080/2331186X.2024.2402147>
- [15] C. Cheriani, Muzakkir, M. S. Iswahyudi, A. Apriyanto, and I. Surdin, *E-learning textbooks*. Jambi, Indonesia: PT Sonpedia Publishing Indonesia, 2024.
- [16] N. Banuelos, "Quality and innovation in American higher education accreditation: The case of the University of Phoenix," *History of Education*, vol. 50, no. 3, pp. 428-449, 2021. <https://doi.org/10.1080/0046760X.2020.1858190>
- [17] S. Sinniah, A. Al Mamun, M. F. Md Salleh, Z. K. M. Makhbul, and N. Hayat, "Modeling the significance of motivation on job satisfaction and performance among the academicians: The use of hybrid structural equation modeling-artificial neural network analysis," *Frontiers in Psychology*, vol. 13, p. 935822, 2022. <https://doi.org/10.3389/fpsyg.2022.935822>
- [18] V. L. Baker and C. E. N. Manning, *A mid-career faculty agenda*. In L. W. Perna (Ed.), *Higher education: Handbook of theory and research*. Cham, Switzerland: Springer, 2021.
- [19] M. S. Abdullahi *et al.*, "How career resilience mediates the nexus between career competency and career success among faculties of higher learning institutions: a quantitative analysis," *Journal of the Knowledge Economy*, vol. 16, no. 1, pp. 5322-5345, 2025. <https://doi.org/10.1007/s13132-024-02041-5>
- [20] P. Kent, C. Cancelliere, E. Boyle, J. D. Cassidy, and A. Kongsted, "A conceptual framework for prognostic research," *BMC Medical Research Methodology*, vol. 20, no. 1, p. 172, 2020. <https://doi.org/10.1186/s12874-020-01050-7>
- [21] A. A. Rachman, R. D. Heryadi, J. B. Rachman, and Y. M. Yani, "Challenges and opportunities in higher education diplomacy of World Class Universities in Indonesia: analysing the network environment of public diplomacy," *Cogent Social Sciences*, vol. 10, no. 1, p. 2384537, 2024. <https://doi.org/10.1080/23311886.2024.2384537>
- [22] A. Widia Hastuti, "The application of Islamic educational games increases students' understanding and interest in learning about Asmaul Husna material in SDS Tahfidzul Quran Raudhatul Hasanah," *Jurnal Profesi Guru Indonesia*, vol. 1, no. 2, pp. 140-152, 2024.
- [23] M. Tavakol and A. Wetzel, "Factor analysis: A means for theory and instrument development in support of construct validity," *International Journal of Medical Education*, vol. 11, pp. 245-247, 2020. <https://doi.org/10.5116/ijme.5f96.0f4a>
- [24] T. X. Zou, "Community-based professional development for academics: A phenomenographic study," *Studies in Higher Education*, vol. 44, no. 11, pp. 1975-1989, 2019. <https://doi.org/10.1080/03075079.2018.1477129>
- [25] M. Muhsyanur, U. Umrati, M. Mansur, and A. Najamuddin, "Tri Dharma Perguruan Tinggi in Indonesia concept, principles, and implementation in academic world," *VORS: Journal of Community Service*, vol. 3, no. 8, pp. 19-26, 2025.
- [26] G. Bowser, S. S. Ho, A. Ziebell, and J. Lazendic-Galloway, "Networking and collaborating: The role of partnerships across sectors to achieve educational goals in sustainability," *Sustainable Earth Reviews*, vol. 7, no. 1, p. 17, 2024. <https://doi.org/10.1186/s42055-024-00080-z>
- [27] M. C. Sondari, A. I. Hermanu, L. Nurlaeli, and D. S. Artisheila, "Impact of community service on university performance and efficiency," *Journal of Science and Technology Policy Management*, vol. 16, no. 8, pp. 1300-1321, 2025. <https://doi.org/10.1108/JSTPM-03-2023-0048>
- [28] H. Yıldırım and F. Y. Şahin, "A study on the counselors' levels of professional pride and job satisfaction according to certain variables," *Participatory Educational Research*, vol. 8, no. 4, pp. 1-23, 2021. <https://doi.org/10.17275/per.21.76.8.4>
- [29] A. Purwanto and Y. Sudargini, "Partial least squares structural equation modeling (PLS-SEM) analysis for social and management research: A literature review," *Journal of Industrial Engineering & Management Research*, vol. 2, no. 4, pp. 114-123, 2021.
- [30] J. Jufrizen, M. Sari, M. Muslih, and N. I. Purnama, "The role of moderation of organizational support on social capital effects on performance of lecturers," *Independent Journal of Management & Production*, vol. 12, no. 2, pp. 450-469, 2021. <https://doi.org/10.14807/ijmp.v12i2.1304>
- [31] S. Wahyuningsih and S. AS, "Career development disparities: Private vs. state higher education lecturers in Indonesia," *Journal of Ecohumanism*, vol. 4, no. 2, pp. 418-430, 2025.
- [32] J. A. Ligibel, K. Awad, and T. Shanafelt, "Mid-career: Fostering physician well-being over the career life cycle," *Mayo Clinic Proceedings*, vol. 100, no. 11, pp. 2007-2016, 2025. <https://doi.org/10.1016/j.mayocp.2025.05.026>
- [33] Y. Zhou, Y. Liu, W. Xue, X. Li, Z. Yang, and Z. Xu, "Factors that influence the intent to pursue a master's degree: Evidence from Shandong Province, China," *Frontiers in Psychology*, vol. 15, p. 1284277, 2024. <https://doi.org/10.3389/fpsyg.2024.1284277>

- [34] D. A. Collier, "Exploring IDR: A comparison of financial situations and behaviors between those in traditional student loan repayment and those in income-driven repayment," *Journal of Student Financial Aid*, vol. 49, no. 2, p. 3, 2020. <https://doi.org/10.55504/0884-9153.1695>
- [35] C. E. Sleeter, L. Neal, and K. K. Kumashiro, *Diversifying the teacher workforce*. Routledge New York, NY, 2014.
- [36] L. Bruce, *Reflective practice for social workers: A handbook for developing professional confidence*. UK: McGraw-Hill Education, 2013.
- [37] A. M. DeFelippo and J. R. Dee, "Vitality in the academic workplace: Sustaining professional growth for mid-career faculty," *Innovative Higher Education*, vol. 47, no. 4, pp. 565–585, 2022. <https://doi.org/10.1007/s10755-021-09589-z>
- [38] M. H. Haiedar and S. Kholifah, "The impact of occupational safety, workload, and compensation on employee job satisfaction in the mining industry: A case study of PT BCKA," *Journal of Management and Informatics*, vol. 4, no. 1, pp. 587–598, 2025. <https://doi.org/10.51903/jmi.v4i1.53>
- [39] A. Mairitsch, G. Sulis, S. Mercer, S. Shin, and S. Mairi, "'They are our future': Professional pride in language teachers across the globe," *Tesol Quarterly*, vol. 58, no. 2, pp. 856–880, 2024. <https://doi.org/10.1002/tesq.3259>
- [40] G. W. Cheung, H. D. Cooper-Thomas, R. S. Lau, and L. C. Wang, "Reporting reliability, convergent and discriminant validity with structural equation modeling: A review and best-practice recommendations," *Asia Pacific Journal of Management*, vol. 41, no. 2, pp. 745–783, 2024. <https://doi.org/10.1007/s10490-023-09871-y>
- [41] J. F. Hair Jr, M. C. Howard, and C. Nitzl, "Assessing measurement model quality in PLS-SEM using confirmatory composite analysis," *Journal of Business Research*, vol. 109, pp. 101–110, 2020. <https://doi.org/10.1016/j.jbusres.2019.11.069>
- [42] I. A. Musenze, T. S. Mayende, A. J. Wampande, J. Kasango, and O. R. Emojong, "Mechanism between perceived organizational support and work engagement: Explanatory role of self-efficacy," *Journal of Economic and Administrative Sciences*, vol. 37, no. 4, pp. 471–495, 2021. <https://doi.org/10.1108/JEAS-02-2020-0016>
- [43] M. H. Yaakub and Z. A. Mohamed, "Measuring the performance of private higher education institutions in Malaysia," *Journal of Applied Research in Higher Education*, vol. 12, no. 3, pp. 425–443, 2020. <https://doi.org/10.1108/JARHE-10-2018-0208>
- [44] O. T. Bataineh, A. M. Mahasneh, Z. H. Al-Zoubi, A. Qablan, and A. M. Alkaabi, "The relationship between teacher commitment, teacher self-efficacy, and work-related quality of life among science teachers," *PloS One*, vol. 20, no. 7, p. e0326994, 2025. <https://doi.org/10.1371/journal.pone.0326994>
- [45] D. Revicki, *Internal consistency reliability*. In *Encyclopedia of quality of life and well-being research*. Cham: Springer International Publishing, 2024.
- [46] E. Asghari, V. Zamanzadeh, L. Valizadeh, A. Ghahramanian, M. Rassouli, and A. Praskova, "Development and psychometric testing of the career success in Nursing Scale," *International Nursing Review*, vol. 68, no. 1, pp. 41–48, 2021. <https://doi.org/10.1111/inr.12631>
- [47] Z. K. Saw *et al.*, "Forward-backward translation, content validity, face validity, construct validity, criterion validity, test-retest reliability, and internal consistency of a questionnaire on patient acceptance of orthodontic retainer," *PloS One*, vol. 20, no. 1, p. e0314853, 2025. <https://doi.org/10.1371/journal.pone.0314853>
- [48] A. Afthanorhan, P. L. Ghazali, and N. Rashid, "Discriminant validity: A comparison of CBSEM and consistent PLS using Fornell & Larcker and HTMT approaches," in *In Journal of Physics: Conference Series (Vol. 1874, No. 1, p. 012085)*. IOP Publishing, 2021.
- [49] M. Rönkkö and E. Cho, "An updated guideline for assessing discriminant validity," *Organizational research methods*, vol. 25, no. 1, pp. 6–14, 2022. <https://doi.org/10.1177/1094428120968614>
- [50] M. Sarstedt, C. M. Ringle, J.-H. Cheah, H. Ting, O. I. Moisescu, and L. Radomir, "Structural model robustness checks in PLS-SEM," *Tourism Economics*, vol. 26, no. 4, pp. 531–554, 2020. <https://doi.org/10.1177/1354816618823921>
- [51] G. Pavlov, A. Maydeu-Olivares, and D. Shi, "Using the standardized root mean squared residual (SRMR) to assess exact fit in structural equation models," *Educational and Psychological Measurement*, vol. 81, no. 1, pp. 110–130, 2021. <https://doi.org/10.1177/0013164420926231>
- [52] P. N. Sharma, G. Shmueli, M. Sarstedt, N. Danks, and S. Ray, "Prediction-oriented model selection in partial least squares path modeling," *Decision Sciences*, vol. 52, no. 3, pp. 567–607, 2021. <https://doi.org/10.1111/deci.12329>
- [53] T. Dunggio, "Work motivation on lecturer achievement: Job satisfaction as mediating variables," *Jurnal Manajemen*, vol. 25, no. 2, pp. 312–327, 2021. <https://doi.org/10.24912/jm.v25i2.742>
- [54] S. Agrawal and S. Singh, "Predictors of subjective career success amongst women employees: Moderating role of perceived organizational support and marital status," *Gender in Management: An International Journal*, vol. 37, no. 3, pp. 344–359, 2022. <https://doi.org/10.1108/GM-06-2020-0187>
- [55] H. Li, J. Xu, Y. Luo, and C. Wang, "The role of teachers' direct and emotional mentoring in shaping undergraduates' research aspirations: A social cognitive career theory perspective," *International Journal of Mentoring and Coaching in Education*, vol. 14, no. 2, pp. 123–142, 2025. <https://doi.org/10.1108/IJMCE-07-2023-0064>
- [56] W. B. Johnson and K. A. Griffin, *On being a mentor: A guide for higher education faculty*. New York: Routledge, 2024.
- [57] A. Mutaufiq, R. A. Trimulyana, and D. Sunarsi, "Analysis of factors and impact of achievement on students career and self development," *International Journal of Sharia Business Management*, vol. 4, no. 1, pp. 22–29, 2025. <https://doi.org/10.51805/ijsbm.v4i1.324>

- [58] Z. Xu and F. Yang, "The impact of perceived organizational support on the relationship between job stress and burnout: A mediating or moderating role?," *Current Psychology*, vol. 40, no. 1, pp. 402-413, 2021. <https://doi.org/10.1007/s12144-018-9941-4>
- [59] V. Tinto, *Completing college: Rethinking institutional action*. Chicago, IL: University of Chicago Press, 2012.
- [60] J. Juhainah, A. Pahrudin, J. Fakhri, and Y. Yuberti, "Optimizing base salary, performance incentives, and welfare benefits to improve lecturer well-being and educational quality in private Islamic religious higher education institutions," *Tadbir: Jurnal Studi Manajemen Pendidikan*, vol. 9, no. 2, pp. 735-760, 2025. <https://doi.org/10.29240/jsmp.v9i2.12841>
- [61] C. L. Juntunen, T. C. Motl, and M. Rozzi, *Major career theories: International and developmental perspectives*. In *International handbook of career guidance*. Cham: Springer International Publishing, 2020.
- [62] Y. K. Liao, V. H. A. Nguyen, H. Y. Yeong, V. T. Hong Vu, and H. T. Trinh, "Unraveling the effects of entrepreneurial passion and entrepreneurship education on entrepreneurial intention: The moderating role of demographic characteristics," *Global Business and Organizational Excellence*, vol. 42, no. 6, pp. 34-58, 2023. <https://doi.org/10.1002/joe.22190>
- [63] L. Wang and C. J. Chen, "Factors affecting student academic performance: A systematic review," *International Journal on Studies in Education*, vol. 7, no. 1, pp. 1-47, 2025. <https://doi.org/10.46328/ijonse.276>
- [64] P. Paisun and M. Masuud, "Investigating the relationship between teacher self-efficacy and student achievement," *Andragogi: Jurnal Pendidikan Dan Pembelajaran*, vol. 4, no. 2, pp. 94-108, 2024. <https://doi.org/10.31538/adrg.v4i2.1303>
- [65] C. McGuinness, *Becoming confident teachers: a guide for academic librarians*. Oxford, UK: Elsevier, 2011.
- [66] K. Shu, "Teachers' commitment and self-efficacy as predictors of work engagement and well-being," *Frontiers in Psychology*, vol. 13, p. 850204, 2022. <https://doi.org/10.3389/fpsyg.2022.850204>
- [67] B. Xu, "Mediating role of academic self-efficacy and academic emotions in the relationship between teacher support and academic achievement," *Scientific Reports*, vol. 14, no. 1, p. 24705, 2024. <https://doi.org/10.1038/s41598-024-75768-5>
- [68] X. Zheng, M. H. Mohd Puad, and H. Ab. Jalil, "A scoping review of job search self-efficacy over the past 5 years: antecedents, mechanisms, consequences, and future directions based on SCT/SCCT," *Frontiers in Psychology*, vol. 16, p. 1596847, 2025. <https://doi.org/10.3389/fpsyg.2025.1596847>
- [69] W. Wang and G. Shakibaei, "Exploring the correlation between teacher work motivation and engagement in online classes: The mediating role of job satisfaction," *BMC Psychology*, vol. 13, no. 1, p. 516, 2025. <https://doi.org/10.1186/s40359-025-02857-z>
- [70] D. Chakraborty and W. Biswas, "Motivating factors in a teacher's research and developmental activities and their impact on effective quality teaching in higher education institutions," *Journal of Applied Research in Higher Education*, vol. 12, no. 4, pp. 609-632, 2020. <https://doi.org/10.1108/JARHE-07-2018-0161>
- [71] Y. M. Kundi, S. Hollet-Haudebert, and J. Peterson, "Linking protean and boundaryless career attitudes to subjective career success: A serial mediation model," *Journal of Career Assessment*, vol. 29, no. 2, pp. 263-282, 2021. <https://doi.org/10.1177/1069072720959782>
- [72] U. C. Okolie, C. A. Nwajiuba, M. O. Binuomote, C. Ehiobuche, N. C. N. Igu, and O. S. Ajoke, "Career training with mentoring programs in higher education: Facilitating career development and employability of graduates," *Education+ Training*, vol. 62, no. 3, pp. 214-234, 2020. <https://doi.org/10.1108/ET-04-2019-0071>
- [73] B. A. Alyoubaky, M. Y. M. Al-Sabaawi, and A. Z. Tawfeeq, "Factors affecting online knowledge sharing and its effect on academic performance," *VINE Journal of Information and Knowledge Management Systems*, vol. 54, no. 5, pp. 990-1010, 2024. <https://doi.org/10.1108/VJIKMS-01-2022-0015>
- [74] T. Heffernan, "Academic networks and career trajectory: 'There's no career in academia without networks'," *Higher Education Research & Development*, vol. 40, no. 5, pp. 981-994, 2021. <https://doi.org/10.1080/07294360.2020.1799948>
- [75] Y. Yang and Y.-C. Chang, "A study on the relationship between teacher competency and job performance under human resource management in higher education," *Educational Research and Reviews*, vol. 18, no. 8, pp. 203-217, 2023.
- [76] Y. Ou and K. Kim, "Integrating psychology into entrepreneurship education: A catalyst for developing cognitive and emotional skills among college students," *Journal of the Knowledge Economy*, vol. 16, no. 2, pp. 7979-8006, 2025. <https://doi.org/10.1007/s13132-024-02070-0>
- [77] C. Adler and C. Lalonde, "Identity, agency and institutional work in higher education: A qualitative meta-synthesis," *Qualitative Research in Organizations and Management: An International Journal*, vol. 15, no. 2, pp. 121-144, 2020. <https://doi.org/10.1108/QROM-11-2018-1696>
- [78] R. W. Lent, S. D. Brown, and G. Hackett, "Toward a unifying social cognitive theory of career and academic interest, choice, and performance," *Journal of Vocational Behavior*, vol. 45, no. 1, pp. 79-122, 1994. <https://doi.org/10.1006/jvbe.1994.1027>
- [79] P. Banerjee, "Connecting the dots: A systematic review of explanatory factors linking contextual indicators, institutional culture and degree awarding gaps," *Higher Education Evaluation and Development*, vol. 18, no. 1, pp. 31-52, 2024. <https://doi.org/10.1108/HEED-07-2023-0020>

- [80] D. Chadha, "Continual professional development for science lecturers: Using professional capital to explore lessons for academic development," *Professional Development in Education*, vol. 50, no. 6, pp. 1253-1268, 2024. <https://doi.org/10.1080/19415257.2021.1973076>
- [81] M. Silic, G. Marzi, A. Caputo, and P. M. Bal, "The effects of a gamified human resource management system on job satisfaction and engagement," *Human Resource Management Journal*, vol. 30, no. 2, pp. 260-277, 2020. <https://doi.org/10.1111/1748-8583.12272>
- [82] E. Johnston, C. Burleigh, and A. Wilson, "Interdisciplinary collaborative research for professional academic development in higher education," *Higher Learning Research Communications*, vol. 10, no. 1, pp. 62-77, 2020.
- [83] P. Aithal and A. K. Maiya, "Development of a new conceptual model for improvement of the quality services of higher education institutions in academic, administrative, and research areas," *International Journal of Management, Technology, and Social Sciences*, vol. 8, no. 4, pp. 260-308, 2023. <https://dx.doi.org/10.2139/ssrn.4770790>
- [84] U. E. Farwa, Q. Li, J. Ye, M. K. Khan, and S. Zulfiqar, "Organizational and psychological factors in teacher educators' professional identity development: An empirical analysis," *British Educational Research Journal*, vol. 51, no. 2, pp. 869-896, 2025. <https://doi.org/10.1002/berj.4106>
- [85] A. B. Muslim, E. Imperiani, B. Musthafa, T. Farlian, and A. Francisco, "Enhancing international student motivations in Indonesian universities: Building academic reputation in the Global South," *Globalisation, Societies and Education*, pp. 1-15, 2025. <https://doi.org/10.1080/14767724.2024.2439420>
- [86] N. Barnes, M. Du Plessis, and J. Frantz, "Institutional culture and academic career progression: Perceptions and experiences of academic staff," *SA Journal of Industrial Psychology*, vol. 47, no. 1, pp. 1-13, 2021. <https://doi.org/10.4102/sajip.v47i0.1878>
- [87] I. I. Berchin, A. R. de Aguiar Dutra, and J. B. S. O. d. A. Guerra, "How do higher education institutions promote sustainable development? A literature review," *Sustainable Development*, vol. 29, no. 6, pp. 1204-1222, 2021. <https://doi.org/10.1002/sd.2219>
- [88] A. Aziz, P. Rachman, J. Juliansyah, and A. Murfi, "Spiritual leadership, organizational culture, and self-efficacy as predictors of lecturer performance in Indonesian higher education: A PLS-SEM analysis in Probolinggo," *Jurnal Pendidikan Islam*, vol. 13, no. 2, pp. 107-117, 2024. <https://doi.org/10.14421/jpi.2024.132.107-117>
- [89] T. L. Trolan, E. A. Jach, and G. C. Archibald, "Shaping students' career attitudes toward professional success: Examining the role of student-faculty interactions," *Innovative Higher Education*, vol. 46, no. 2, pp. 111-131, 2021. <https://doi.org/10.1007/s10755-020-09529-3>
- [90] S. Belay, S. Melese, and A. Seifu, "Elevating teachers' professional capital: Effects of teachers' engagement in professional learning and job satisfaction, Awi District, Ethiopia," *SAGE open*, vol. 12, no. 2, p. 21582440221094592, 2022. <https://doi.org/10.1177/21582440221094592>
- [91] S. G. A. S. Bukhari, S. G. Jamali, A. R. Larik, and M. S. Chang, "Fostering intrinsic motivation among teachers: Importance of work environment and individual differences," *International Journal of School & Educational Psychology*, vol. 11, no. 1, pp. 1-19, 2023. <https://doi.org/10.1080/21683603.2021.1925182>
- [92] H. Murcahyanto, M. Mohzana, and M. Fahrurrozi, "Work experience and achievement: Their influence on lecturers' career," *Al-Ishlah: Jurnal Pendidikan*, vol. 14, no. 2, pp. 1219-1230, 2022.
- [93] R. Mohd Rasdi, S. Z. Tauhed, Z. Zaremozhzabieh, and S. Ahrari, "Determinants of research performance of university academics and the moderating and mediating roles of organizational culture and job crafting," *European Journal of Training and Development*, vol. 47, no. 7-8, pp. 711-728, 2023. <https://doi.org/10.1108/EJTD-11-2021-0192>
- [94] C. Wu, W. Chen, and D. Lv, "Managers' professional trajectory in the textile industry—assessing career advancement, work-family practices, recognition, and work performance," *Humanities and Social Sciences Communications*, vol. 12, no. 1, pp. 1-13, 2025. <https://doi.org/10.1057/s41599-025-04789-w>
- [95] W. K. Balzer, *Lean higher education: Increasing the value and performance of university processes*. New York: Productivity Press, 2020.
- [96] G. K. Amoako, K. Dartey-Baah, and E. Sokro, "Factors influencing teaching as a career choice in both public and private universities in Ghana," *Journal of Applied Research in Higher Education*, vol. 12, no. 4, pp. 633-648, 2020. <https://doi.org/10.1108/JARHE-07-2018-0163>
- [97] X. Ma, "New regionalism in action: The CAMPUS asia initiative and its role in global higher education governance from China's perspective," *Higher Education Policy*, pp. 1-24, 2024. <https://doi.org/10.1057/s41307-024-00391-y>
- [98] C. Maier, J. B. Thatcher, V. Grover, and Y. K. Dwivedi, "Cross-sectional research: A critical perspective, use cases, and recommendations for IS research," *International Journal of Information Management*, vol. 70, p. 102625, 2023. <https://doi.org/10.1016/j.ijinfomgt.2023.102625>
- [99] N. Tantawy, "Investigating teachers' perceptions of the influence of professional development on teachers' performance and career progression," *Arab World English Journal*, vol. 11, no. 1, pp. 181-194, 2020.
- [100] A. Amadi, "Integration in a mixed-method case study of construction phenomena: From data to theory," *Engineering, Construction and Architectural Management*, vol. 30, no. 1, pp. 210-237, 2023. <https://doi.org/10.1108/ECAM-02-2021-0111>

- [101] F. Bahramnezhad and F. Keshmiri, "Establishing pathways to excellence in the teaching profession": An exploration of teachers' experiences on sustaining motivation in Medical sciences universities," *BMC Medical Education*, vol. 25, no. 1, p. 279, 2025. <https://doi.org/10.1186/s12909-025-06844-1>