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RESEARCH ARTICLE

Bahasa Malaysia Version of Academic Performance Questionnaire: A Validation Study

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ABSTRACT

Academic performance in higher education is increasingly shaped by global ranking systems that emphasise research output, institutional reputation, and internationalisation. In Malaysia, public universities face dual pressures to enhance global competitiveness while maintaining teaching quality and securing research funding. This study examines the psychometric properties of the Academic Performance Questionnaire (APQ) adapted for Malaysian academicians to measure perceptions of institutional performance. This study employed a cross-sectional survey design involving 116 academicians from the Health Campus of Universiti Sains Malaysia. The structure of the instrument was examined using Confirmatory Factor Analysis (CFA) while reliability and validity were assessed through composite reliability (CR), and average variance extracted (AVE) to evaluate internal consistency and convergent validity. One weakly loading item was removed and one error covariance between two aspirational, internationally oriented items was specified. The resulting 11-item single-factor APQ displayed strong fit (χ^2/df = 1.696, CFI = 0.953, TLI = 0.939, RMSEA = 0.078), with loadings from 0.653 to 0.747. Composite reliability reached 0.916 and AVE was 0.500, which met convergent validity.

The adapted 11-item APQ is a valid and reliable unidimensional measure of perceived institutional academic performance for use with Malaysian health sciences academicians, even though future validation across diverse institutions and academic disciplines is recommended.

1. Introduction

Academic performance in higher education is a complex and multidimensional construct that covers research productivity, teaching quality, graduate employability, international standing, resource acquisition, and institutional reputation (Karie et al., 2025; Stoica et al., 2025; Vernon et al., 2018). Although national and international ranking systems rely heavily on bibliometric and other objective indicators, self-report instruments that measure academicians' perceptions of institutional and individual performance provide complementary insights that objective metrics alone cannot adequately capture (Koopmans et al., 2014). Interest in the factors that influence academic performance has grown as universities compete for global recognition and research funding. Recent studies have examined the challenges that reduce research productivity in resource-limited settings (Karie et al., 2025), how universities build and maintain their reputation (Stoica et al., 2025), and whether university rankings lead to improvements in research performance (Vernon et al., 2018). These show that academic performance is treated not as a single output, but includes several related aspects of institutional performance that stakeholders consider as a whole.

Academic performance is especially important in Malaysia. Public universities are expected to improve their position in international rankings while maintaining high teaching quality and attracting research funding (Noor & Ismail, 2016; Isa & Palpanadan, 2020). These expectations have increased the focus on the factors that influence academic performance and on how academicians perceive their institution's performance. To understand these perceptions, researchers need measurement tools that are both conceptually sound and suitable for the local language and context. Despite extensive literature on academic performance, validated instruments tailored for Malaysian academic contexts remain limited. The translation and adaptation of established scales into Bahasa Malaysia, followed by rigorous psychometric evaluation, are essential steps for ensuring measurement equivalence and enabling comparability across studies.

The present study therefore validated the psychometric properties of a Bahasa Malaysia adaptation of the Academic Performance Questionnaire (APQ) among academicians in Malaysia. The specific objectives were to evaluate the factor structure of APQ using confirmatory factor analysis (CFA) and to assess the reliability and convergent validity of the instrument.

2. Methods

2.1. Research Design

A quantitative cross-sectional survey was conducted to validate the adapted APQ among academic staff of a Malaysian public university. The sample size was determined based on the recommended ratio of at least 10 respondents per item for confirmatory factor

analysis (Nunnally, 1978; Kline, 2011). Using 10:1 ratio of the items in the instruments with additional 20% for potential dropout, this study targeted for 144 participants. Ultimately, 116 complete and valid responses were obtained and analysed.

Participants were academic lecturers at the Health Campus of Universiti Sains Malaysia in Kelantan. Individuals were selected using simple random sampling from list names provided by the administration office. Inclusion was limited to local academicians on permanent or contract terms who possessed at least a tertiary qualification, while those holding top management appointments were excluded so that atypical administrative loads would not bias performance appraisals. Data were gathered from September to November 2024 using an online Google Forms questionnaire that was sent to their respective institutional email accounts, with follow-up prompts dispatched every ten days to raise the response rate.

2.2. Research Instruments

The Academic Performance Scale was adapted from Abubakar, Hilman and Kaliappen (2018). The original instrument comprises 12 items that appraise university-level academic performance, indexing dimensions such as academic reputation, graduate employability, research output, internationalisation, faculty quality, and resource availability. Respondents rate each statement on a five-point Likert continuum from 1 ("strongly disagree") to 5 ("strongly agree"), with higher totals signalling a more favourable perception of institutional performance. Items expressed in the negative were reverse-coded prior to analysis to preserve a uniform scoring direction.

Preparation of the Bahasa Malaysia version followed a translation and back-translation procedure carried out by translators affiliated with the School of Languages, Literacies and Translation at Universiti Sains Malaysia. The resulting questionnaire was pre-tested with academic staff to verify comprehensibility and to identify wording that might be misread. A separate content-validity index was not calculated, since the items were adopted in their original conceptual form without alteration.

2.3. Statistical Analysis

Descriptive statistics were analysed via IBM SPSS Statistics version 28.0, with means and standard deviations reported for continuous variables and frequencies and percentages for categorical variables. Construct validity of the APQ was examined through confirmatory factor analysis in IBM SPSS AMOS version 24.0. Given that the APQ was designed with a defined single-factor structure and its items were not newly constructed, exploratory factor analysis was deemed unnecessary.

The model fitness was evaluated using a normed chi-square (χ^2/df) under 3.0, CFI and TLI values above 0.90, and RMSEA below 0.08 (Sathyanarayana & Mohanasundaram, 2024). Convergent validity required standardised loadings above 0.50 and an AVE of at least 0.50, while internal consistency was assessed through composite reliability that exceeded the 0.70 benchmark.

3. Results

3.1. Sociodemographic characteristics

Questionnaires were completed by 116 academicians. Women constituted the majority of the sample, accounting for 67.2% of all respondents, and Malay ethnicity dominated the sample at 94.8%. The mean respondent age was 44.37 years (SD = 6.77), and 89.7% were married. Departmental affiliation clustered in the School of Medical Sciences and the School of Health Sciences, which supplied 54.3% and 34.5% of participants respectively. In terms of rank, Lecturers formed the single largest group (44.0%), followed by Senior Lecturers (37.1%). Highest qualification was distributed almost symmetrically, with 50.9% holding a Master's degree and 49.1% a doctorate.

3.2. Confirmatory Factor Analysis

The initial APQ model comprised 12 items loading onto a single unidimensional factor. Item AP8 (Our institution observed frequent winning of prizes and fields medals by members of alumni) yielded a factor loading below threshold (0.410) and was removed. Re-estimation of the 11-item model still failed to fit adequately (χ^2/df = 1.995, CFI = 0.884, TLI = 0.855, RMSEA = 0.109). The modification indices (MI) flagged a large residual covariance between AP4 (Our institution believes in research impact and produced publications that attract citations.) and AP5 (Our institution believes in providing incentives that attract academics from other nations for good international faculty ratio.) with MI = 23.914, both of which describe aspirational and internationally oriented institutional behaviours, and an error covariance was specified for this pair.

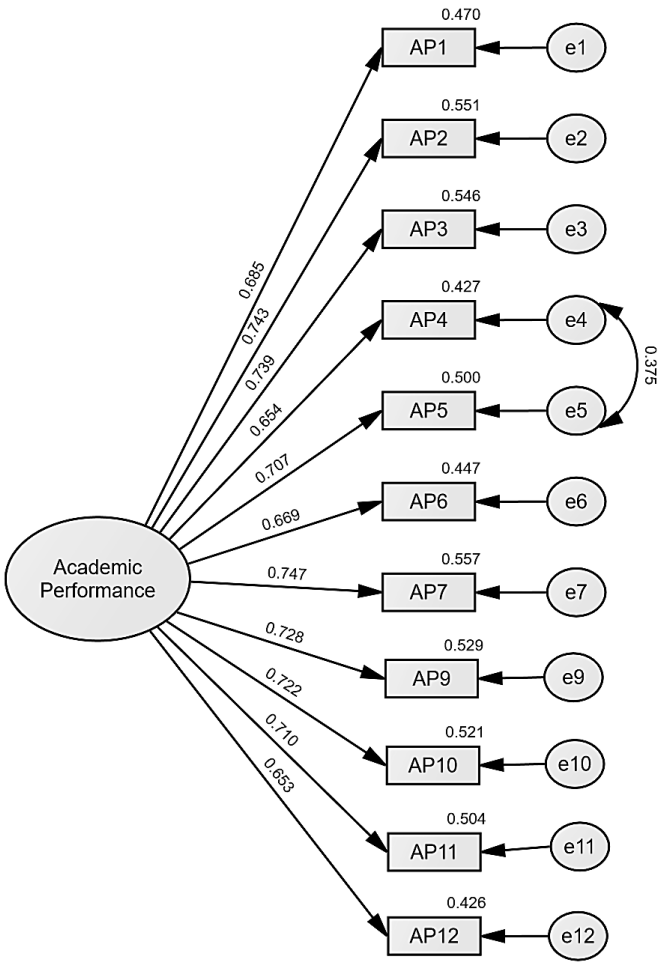
The final 11-item single-factor model achieved strong fit (χ^2/df = 1.696, CFI = 0.953, TLI = 0.939, RMSEA = 0.078). Standardised factor loadings ranged from 0.653 to 0.747. Composite reliability was 0.916 above the 0.70 benchmark, and AVE reached 0.500 limit, which met the convergent-validity criterion. Item statistics are presented in Table 1, and the measurement model is depicted in Figure 1.

Table 1: Standardised factor loadings, composite reliability, and average variance extracted for the Academic Performance Questionnaire (APQ)

Item	Item Description	Outer loadings (standardized)		Composite Reliability (CR)	Average Variance Extracted (AVE)
		Initial model	Modified model		
AP1	I believe the best work is currently taking place in research and teaching within the field of expertise for academic reputation.	0.694	0.685	0.916	0.500
AP2	I believe our institution produces the best graduates for employment.	0.735	0.743		
AP3	Our institution believes in small class sizes and a good level of individual supervision for faculty to student ratio.	0.744	0.739		
AP4	Our institution believes in research impact and produced publications that attract citations.	0.687	0.654		
AP5	Our institution believes in providing incentives that attract academics from other nations for good international faculty ratio.	0.736	0.707		
AP6	Our institution believes in attracting	0.668	0.669		

	students from other nations with high ratio.		
AP7	Our institution observed frequent winning of prizes and fields medals by members of staff.	0.748	0.747
AP8	Our institution observed frequent winning of prizes and fields medals by members of alumni.	0.410	Deleted
AP9	Our institution frequently gets research income in form of a grant through our staff.	0.718	0.728
AP10	Our institution has an adequate size of resources for operations.	0.710	0.722
AP11	Our institutions have infrastructures with adequate basic facilities.	0.695	0.710
AP12	Our institutions offer consultation services and training to the government, private firms, and other societies.	0.650	0.653

Figure 1: Confirmatory factor analysis model for the Academic Performance Questionnaire (APQ) with standardised factor loadings (N = 116).



4. Discussion

This study adapted the Academic Performance Questionnaire into Bahasa Malaysia and evaluated its measurement adequacy among health sciences academicians. The final revised version of the APQ retained 11 of the original 12 items of the questionnaire.

Initial CFA analysis showed one item, AP8 (Our institution observed frequent winning of prizes and fields medals by members of alumni) demonstrated low factor loading (0.410) and was removed. The exclusion of AP8 is theoretically sensible as alumni prize-winning is a distal marker of institutional performance. It is because such achievements belong to individual accomplishment after graduation and are only indirectly associated with the institution's present academic environment. Compared with items measuring more direct outputs of academic performance such as research publications, faculty quality, or graduate employability, an alumni-award item is unlikely to load strongly on the general performance factor in the Malaysian context (Karie et al., 2025; Stoica et al., 2025).

The reanalysed model produced an acceptable $\chi^2/df = 1.995$, although the overall model fit remained unsatisfactory (CFI = 0.884, TLI = 0.855, RMSEA = 0.109). A pair of items, AP4 (Our institution believes in research impact and produced publications that attract citations) and AP5 (Our institution believes in providing incentives that attract academics from other nations for good international faculty ratio) had MI value of 23.914, exceeding the recommended threshold of 15. This covariance is theoretically justifiable because, although the two items represent different aspects of academic performance (research impact and internationalisation), they both reflect a globally oriented view of university performance. Academicians who are familiar with international ranking criteria may perceive these two aspects similarly, resulting in shared variance between the items that is not fully explained by the underlying latent construct (Vernon et al., 2018).

The final model fit all criteria with $\chi^2/df = 1.696$, CFI = 0.953, TLI = 0.939, and RMSEA = 0.078. Composite reliability (CR = 0.916) and average variance extracted (AVE = 0.500) further confirmed strong internal consistency and convergent validity, supporting the suitability of the adapted APQ for measuring Malaysian academicians' perceptions of institutional performance. However, several limitations shall be acknowledged. The findings were based on data collected from a single university health campus, which may limit the generalisability of the results to other disciplines and types of higher education institution. Future studies should validate the APQ in different higher education institutions and across a wider range of academic disciplines to establish its applicability in diverse Malaysian academic settings.

5. Conclusion

The Bahasa Malaysia adaptation of the Academic Performance Questionnaire exhibited satisfactory psychometric properties among health sciences academicians at Universiti Sains Malaysia. Confirmatory factor analysis confirmed an 11-item unidimensional structure with strong fit, high composite reliability, and adequate convergent validity. The validated instrument provides a practical means of assessing academicians' perceptions of institutional performance, though its applicability beyond a single public university awaits confirmation in broader samples across multiple universities, academic disciplines, and institutional settings.

Ethics Approval and Consent to Participate

This study received ethical approval from the Human Research Ethics Committee of Universiti Sains Malaysia (reference USM/JEPeM/KK/24010097) and complied with the Declaration of Helsinki. Consent was obtained electronically: a consent statement was displayed on the first page of the online questionnaire, and only respondents who affirmed their consent were permitted to proceed. Participation was voluntary and could be withdrawn at any time.

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Conflict of Interest

The authors declare there are no conflicts of interest.

References

Abubakar, A., Hilman, H., & Kaliappen, N. (2018). New tools for measuring global academic performance. *SAGE Open, 8*(3). https://doi.org/10.1177/2158244018790787

Isa, K., & Palpanadan, S. T. (2020). Prevalence, causes of stress and coping strategies among Malaysian university lecturers. *International Journal of Higher Education, 9*(5), 312. https://doi.org/10.5430/ijhe.v9n5p312

Karie, O. H., Mohamed, B. A., Eid, M. A., & Farah, M. D. (2025). Factors limiting research productivity among lecturers in higher education institutions in Somalia. *Education Administration Theory and Practice, 31*(2), 424–431. https://doi.org/10.53555/KUEY.V31I2.10495

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). Guilford Press.

Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., De Vet, H. C. W., & Van Der Beek, A. J. (2014). Construct validity of the individual work performance questionnaire. *Journal of Occupational and Environmental Medicine, 56*(3), 331–337. https://doi.org/10.1097/JOM.0000000000000113

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill.

Noor, A., & Ismail, N. (2016). Occupational stress and its associated factors among academicians in a research university, Malaysia. *Malaysian Journal of Public Health Medicine 16*(1), 81–91.

Sathyanarayana, S., & Mohanasundaram, T. (2024). Fit indices in structural equation modeling and confirmatory factor analysis: Reporting guidelines. *Asian Journal of Economics and Business Accounting, 24*(7), 561–577. https://doi.org/10.9734/AJEBA/2024/v24i71430

Stoica, D., Patriche, C. C., David, S., Beldiman, C. M., & Dragomir Bălănică, C. M. (2025). Knowledge-driven reputation management in higher education institutions.

Journal of Innovation & Knowledge, 10(6), 100811. https://doi.org/10.1016/J.JIK.2025.100811

Vernon, M. M., Balas, E. A., & Momani, S. (2018). Are university rankings useful to improve research? A systematic review. *PLOS ONE, 13*(3), e0193762. https://doi.org/10.1371/JOURNAL.PONE.0193762