

# **Analysis of Campus Environment, Curriculum Evaluation, Managerial Support and Professional Skills on Higher Education Quality: The Case of Mongolia**

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## **ABSTRACT**

The aim of our study to examined how four major dimensions—campus environment, curriculum evaluation, managerial support, and professional skills of academic staff—influence the perceived and actual education quality within Mongolian universities. The research compares public and private institutions to identify similarities and differences in their approaches to maintaining and improving academic standards. By integrating theoretical foundations such as the Input–Process–Output (IPO) model, Total Quality Management (TQM) in education, and Human Capital Theory, the study explores how supportive management, well-trained teachers, modern facilities, and continuous curriculum evaluation collectively enhance teaching effectiveness, student satisfaction, and institutional performance. The findings are expected to provide evidence-based insights for policymakers, educational leaders, and accreditation bodies to strengthen Mongolia’s higher education system and ensure sustainable improvement in education quality across both public and private sectors.

**Keywords:** campus environment, curriculum evaluation, managerial support, professional skills, education quality.

## **INTRODUCTION**

Higher education refers to advanced learning and scholarly activities undertaken after completing secondary school, and is usually offered by universities, colleges, and other specialized institutions. Its central purpose is to generate advanced knowledge, strengthen professional competencies, and nurture the intellectual, ethical, and personal development of learners.

The UNESCO Four Pillars of Education (Delors Report, 1996) present a comprehensive framework that shapes the aims and values of higher education. These pillars highlight not only the importance of acquiring knowledge and practical abilities but also the need to cultivate ethical awareness, social responsibility, and intercultural understanding. Collectively, they encourage continuous learning that integrates cognitive, professional, social, and personal dimensions, contributing to sustainable human development. UNESCO describes higher education as including “all forms of academic, professional, technical, artistic, pedagogical, and distance learning—delivered by universities, technological institutes, teacher-training colleges, and similar institutions—designed for students who have completed secondary education and whose goal is to earn a degree, certificate, or diploma of higher learning.”

According to Encyclopaedia Britannica, higher education is defined as “any type of instruction offered in post-secondary institutions of learning that, upon completion, results in a recognized degree, diploma, or certificate of advanced study.”

### **THEORETICAL ISSUES FOR HIGHER EDUCATION QUALITY ASSESSMENT**

The theoretical foundations for assessing higher education quality highlight that quality must be understood as a multidimensional concept shaped by institutional goals, student outcomes, and stakeholder expectations. Models such as Harvey and Green’s framework emphasize excellence, fitness for purpose, and transformation as key indicators of educational value [1].

Theories like TQM and OBE also support continuous improvement and outcome-based evaluation as essential components of quality assurance. In addition, student engagement and digital learning theories demonstrate that active participation and technology acceptance significantly influence learning quality. Together, these theoretical perspectives provide a comprehensive basis for evaluating and improving higher education quality. Higher education quality is commonly understood as the extent to which universities achieve their academic, social, and professional goals [2].

According to Harvey and Green (1993), quality in higher education can be viewed as excellence, fitness for purpose, value for money, and transformation. UNESCO’s Four Pillars of Education (1996) provide a holistic basis for quality assessment by emphasizing cognitive, practical, personal, and social development [3].

The Input–Process–Output (IPO) model explains that educational quality depends on the quality of resources, the effectiveness of learning processes, and the achievements of students. Total Quality Management (TQM) argues that continuous improvement, student-centered practices, and evidence-based decisions are essential for maintaining quality in universities.

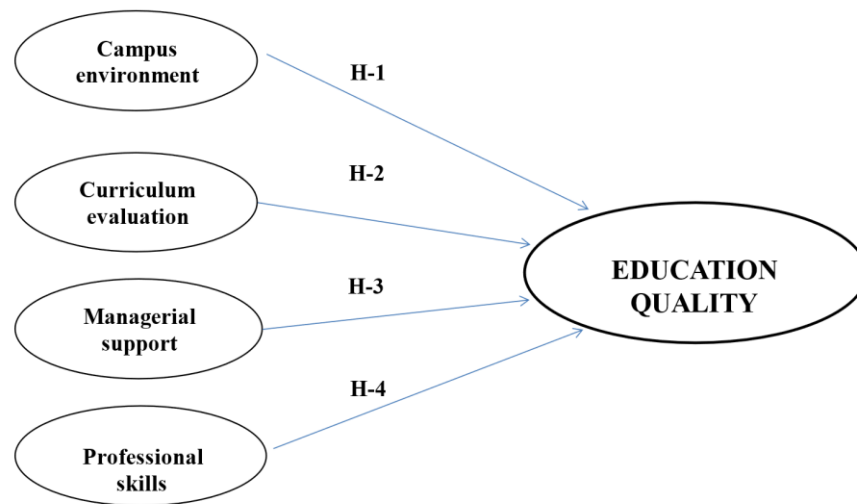
The European Foundation for Quality Management (EFQM) Excellence Model the EFQM Excellence Model is a tool for continuously improving quality to achieve excellence in education and management. The model suggests that strong leadership, clear strategies, and effective management of people and resources lead to high institutional performance. Student Engagement Theory (Astin, 1984) states that student learning and development increase when learners are actively involved in academic and social activities. The SERVQUAL model proposes that service quality in higher education is reflected in reliability, responsiveness, assurance, empathy, and physical learning environments [4].

Outcomes-Based Education (OBE) explains quality by focusing on whether students achieve the intended learning outcomes and demonstrate required competencies. Human Capital Theory (Becker, 1964) views education as an investment that improves skills, productivity, and future income, making graduate employability an important quality indicator.

Stakeholder Theory highlights that universities must meet the expectations of students, faculty, employers, government, and society to ensure comprehensive quality. Digital learning theories, such as the Technology Acceptance Model (TAM), explain that students’ acceptance of e-learning depends on perceived usefulness and ease of use. Kirkpatrick’s evaluation model

suggests that educational quality can be measured through student satisfaction, learning outcomes, behavioral changes, and institutional results [5].

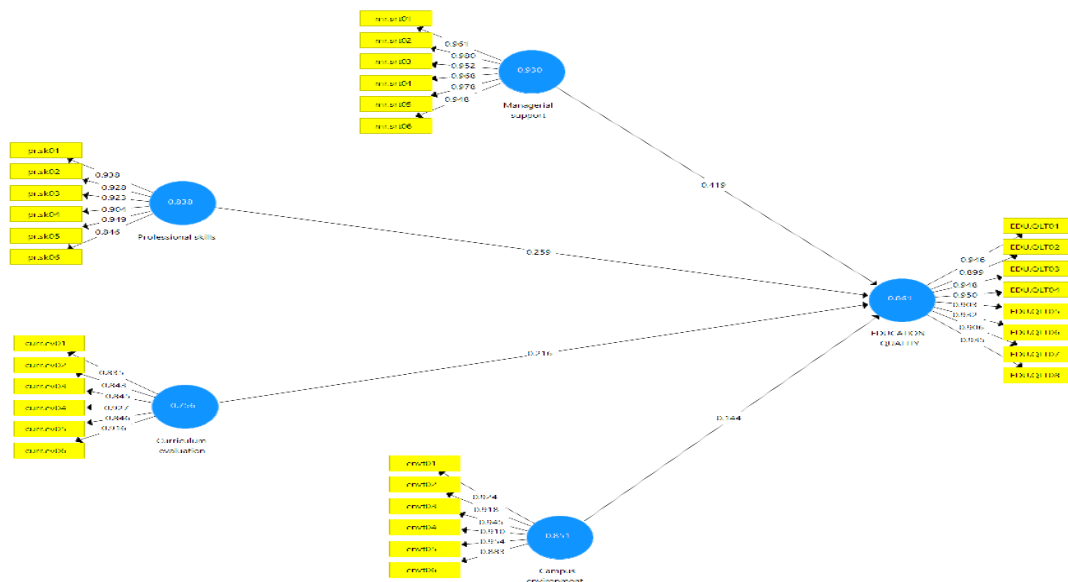
We hypothesized four hypothesis in our study. H1: A campus environment has a positive and significant effect on higher education quality. H2: Effective and continuous curriculum evaluation positively influences the overall quality of higher education. H3: Managerial support from institutional leadership has a positive impact on higher education quality. H4: Professional skills among academic staff significantly enhance higher education quality.



**Figure 1: Conceptual framework on higher education quality.**

### THE ANALYSIS OF OUR STUDY

We are analyzed that four important dimensions such as campus environment, curriculum evaluation, managerial support, professional skills on education quality.



**Figure 2: The results of our study (Smart PLS 3.0, Algoritghm)**

Noted by: envt-campus environment, curr.ev-curriculum evaluation, mr.srt-managerial support, pr.sk-professional skills, EDU.QLT-education quality

The results show that all five constructs—Campus Environment, Curriculum Evaluation, Education Quality, Managerial Support, and Professional Skills—have very high reliability and strong convergent validity. Cronbach's alpha (0.965), rho\_A (0.966), and composite reliability (0.972) show excellent internal consistency. The AVE value (0.851) indicates that the items strongly represent the construct.

Cronbach's alpha (0.935), rho\_A (0.939), and composite reliability (0.949) confirm high reliability. The AVE (0.756) demonstrates good convergent validity. The reliability scores—alpha (0.977), rho\_A (0.977), and CR (0.980)—are very high. The AVE (0.861) shows that the indicators explain most of the variance in the construct. This construct has the highest reliability: alpha (0.985), rho\_A (0.985), and CR (0.988).

The AVE value (0.930) indicates excellent convergent validity. The reliability values—alpha (0.961), rho\_A (0.964), and CR (0.969)—are strong. The AVE (0.838) confirms that the items measure the construct well. All constructs meet and exceed recommended thresholds for reliability and validity. The results of our study means the measurement model is statistically sound, and the items accurately represent each factor in table 1.

**Table 1: The consistency reliability and convergent validity of our study**

<b>FACTORS</b>	<b>Cronbach's alpha</b>	<b>Rho_A</b>	<b>Composite Reliability</b>	<b>Average Variance Extracted</b>
Campus environment	0.965	0.966	0.972	0.851
Curriculum evaluation	0.935	0.939	0.949	0.756
EDUCATION QUALITY	0.977	0.977	0.980	0.861
Managerial support	0.985	0.985	0.988	0.930
Professional skills	0.961	0.964	0.969	0.838

Noted by: The results of our study

The results of our study showed that all five constructs demonstrate excellent internal consistency and strong convergent validity, indicating that the measurement model is highly reliable.

Campus Environment, Cronbach's alpha (0.965), rho\_A (0.966), and composite reliability CR (0.972) were all very high. The Average Variance Extracted AVE value (0.851) showed that most variance is explained by the indicators.

Curriculum Evaluation, Reliability values were strong that Cronbach's alpha (0.935), rho\_A (0.939), and CR (0.949). The AVE (0.756) indicates good convergent validity.

Education Quality, that Cronbach's Alpha (0.977), rho\_A (0.977), and CR (0.980) are extremely high. The AVE (0.861) confirms strong indicator relevance.

Managerial Support, Cronbach's alpha (0.985), rho\_A (0.985), CR (0.988). The AVE (0.930) indicates excellent convergent validity.

Professional Skills that Cronbach's Alpha (0.961), rho\_A (0.964), CR (0.969). The AVE (0.838) reflects strong indicator loading in table 2.

**Table 2: The discriminant validity of our study**

FACTORS	Campus environment	Curriculum evaluation	EDUCATION QUALITY	Managerial support	Professional skills
Campus environment	0.923				
Curriculum evaluation	0.791	0.87			
EDUCATION QUALITY	0.888	0.860	0.928		
Managerial support	0.850	0.788	0.904	0.965	
Professional skills	0.838	0.771	0.857	0.740	0.915

Noted by: The results of our study

Each factor's square root of AVE (diagonal value) is higher than its correlations with other factors. The result means every factor is clearly different from the others. Campus environment (0.923) is higher than all its correlations, so it has good discriminant validity. Curriculum evaluation (0.870) is also higher than all related correlations, meaning it is distinct. Education quality (0.928) is higher than its correlations, so it is clearly separate from other factors. Managerial support (0.965) has the highest value among its pairs, showing strong discriminant validity. Professional skills (0.915) is higher than all its correlations and is a separate factor. All five factors meet the discriminant validity requirement. It showed that each factor measures a different concept and they do not overlap too much in our study.

**Table 3: The path analysis of our study**

FACTORS	Sample mean	Standard deviation	T statistics	P value	result
Campus environment	0.153	0.124	1.156	0.248	no supported
Curriculum evaluation	0.227	0.12	1.803	0.072	no supported
Managerial support	0.406	0.117	3.579	0.000	supported
Professional skills	0.256	0.129	2.013	0.045	supported

Noted by: The results of our study

Campus environment on education quality was not significant ( $\beta = 0.153$ ,  $p = 0.248$ ). It means the campus environment did not show a meaningful influence in the model. Curriculum evaluation on education quality was also not significant ( $\beta = 0.227$ ,  $p = 0.072$ ). Although the path coefficient was positive, it did not reach the required level of statistical significance.

In contrast, Managerial support on education quality showed a significant and positive effect ( $\beta = 0.406$ ,  $p < 0.001$ ). It indicates that managerial support strongly contributes to the outcome and is an important predictor in the model. Finally, Professional skills on education quality had a significant positive effect ( $\beta = 0.256$ ,  $p = 0.045$ ). The result suggests that higher professional skills meaningfully improve the dependent variable in our study.

## CONCLUSION

The findings showed that all constructs are highly reliable and consistently measured. Each construct demonstrates strong convergent validity, meaning the items clearly represent the intended factors. The discriminant validity results confirm that all constructs are distinct and do not overlap with one another. Overall, the measurement model is stable, accurate, and statistically well-supported. These results indicate that the study's constructs are both theoretically sound and empirically valid.

We commented two simple academic suggestions from the results of pour study that:

- Suggestion 1, Future research could include additional indicators or new constructs to further strengthen the model and explore broader dimensions of the topic.
- Suggestion 2, Researchers may also test the model with a larger or more diverse sample to confirm whether the strong reliability and validity results remain consistent across different groups.

## References

1. Harvey, L., & Green, D. (1993). Defining quality. *Assessment & Evaluation in Higher Education*, 18(1), 9–34. <https://doi.org/10.1080/0260293930180102>
2. Van Vught, F. A., & Westerheijden, D. F. (1994). Towards a general model of quality assessment in higher education. *Higher Education*, 28(3), 355–371. <https://doi.org/10.1007/BF01383722>
3. Sursock, A. (2011). *Examining quality culture: Part II – Processes and tools*. European University Association (EUA). <https://eua.eu>
4. Ryan, P. (2015). Quality assurance in higher education: A review of literature. *Higher Learning Research Communications*, 5(4), 1–15. <https://doi.org/10.18870/hlrc.v5i4.257>
5. Beerkens, M. (2015). Quality assurance in the higher education policy process: European and national policy dynamics. *Policy and Society*, 34(1), 57–67. <https://doi.org/10.1016/j.polsoc.2015.01.002>
6. Delors, J. (1996). *Learning: The treasure within*. Paris: UNESCO Publishing.
7. Dewey, J. (1938). *Experience and education*. New York, NY: Macmillan.
8. Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
9. Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education*, 4(2), 193–212. <https://doi.org/10.5465/amle.2005.17268566>
10. Dill, D. D. (2007). Quality assurance in higher education: Practices and issues. In G. R. Jones, *Encyclopedia of Higher Education* (pp. 283–293). Elsevier.
11. Woodhouse, D. (1999). Quality and quality assurance. In H. de Wit & J. Knight (Eds.), *Quality and internationalisation in higher education* (pp. 29–44). OECD Publishing.
12. Taba, H. (1962). *Curriculum development: Theory and practice*. New York, NY: Harcourt, Brace & World.
13. Tyler, R. W. (1949). *Basic principles of curriculum and instruction*. Chicago, IL: University of Chicago Press.
14. Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
15. Mulder, M. (2014). Conceptions of professional competence. In S. Billett, C. Harteis, & H. Gruber (Eds.), *International handbook of research in professional and practice-based learning* (pp. 107–137). Dordrecht: Springer.
16. Jarvis, P. (2004). *Adult education and lifelong learning: Theory and practice* (3rd ed.). London: RoutledgeFalmer.