
Quality of Life in University Governance of the Sustainable Development Goals

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Abstract: The relationship between quality of life and university governance has been close, but only in those areas where a correlation between the two categories prevails. In the framework of the implementation of SDGs in universities, quality of life is assumed as an indicator. Therefore, the objective of this work was to establish a model in order to analyze the relationship between the categories. A cross-sectional, psychometric and confirmatory study was carried out with a sample of 100 students selected for their affiliation with universities committed to the implementation of the SDGs. Four of the six dimensions of quality of life reported in the literature were confirmed. In relation to the state of the art where the link between the categories is highlighted, this work corroborates this relationship and recommends extending the sample in order to confirm the two pending factors.

Keywords: Confirmatory Factor Analysis, Quality of Life, University Governance, Factor Model, SDGs, Sustainable Development

Received: 11 June 2025 / **Revived:** 04 August 2025 / **Accepted:** 08 August 2025 / **DOI:** 10.22399/ijssusat.17

1. Introduction

Quality of life at university refers to a set of factors that influence the well-being of students, faculty, and staff at a higher education institution [1]. This concept has evolved over time, integrating aspects such as infrastructure, academic environment, psychosocial support, student engagement, and more recently, sustainability and inclusion. 1960s and 1970s: The idea of quality of university life began to emerge in the context of student movements demanding better conditions at universities, more participation in decision-making, and changes in the academic and administrative structure [2]. These movements highlighted the need for a university environment that not only

focused on academic performance, but also on mental health, equity, and the general well-being of the university community.

1980s and 1990s: During this period, studies of college quality of life began to adopt more structured approaches [3]. Models were introduced that assessed not only academic performance but also psychosocial well-being, student satisfaction, and equity in access to resources. At the same time, the expansion of universities globally brought with it new concerns about equity, quality, and universal access to higher education.

In the early decades of the 21st century, the notion of quality of university life has continued to develop to include components related to mental health, work-life balance, active participation in community life, campus safety, and access to equitable academic opportunities [4]. Furthermore, with globalization and the diversification of the student population, issues of inclusion, diversity, and sustainability have come to the fore.

The theory of university quality of life combines multidimensional approaches that take into account several essential factors:

Physical and mental wellbeing: This encompasses health, nutrition, exercise, access to medical services and psychosocial support [5]. Mental wellbeing has become a critical issue in universities, with an increasing focus on preventing stress and anxiety among students and staff.

Infrastructure and resources: The availability of adequate facilities, libraries, laboratories, modern classrooms and recreational spaces are essential to improve the university experience and the well-being of students [6].

Academic and social environment: An environment that promotes inclusion, equity, and active participation is essential to improving the quality of university life [7]. This includes positive relationships between students and teachers, as well as the existence of a dynamic and cooperative learning environment.

Participation and governance: Student participation in institutional decision-making, as well as access to extracurricular activities, increases their satisfaction and sense of belonging [8]. A democratic approach to university governance is key to fostering an inclusive community.

Equity and social justice: Equity in access to higher education, scholarship opportunities, the reduction of economic barriers and the promotion of an inclusive environment are factors that determine the quality of university life [9].

Sustainability and social responsibility: Recently, sustainability has been recognized as an important component of quality of life at universities, aligned with the Sustainable Development Goals (SDGs). This includes efforts to promote environmentally responsible practices, reduce the ecological footprint, and educate students about climate change and environmental justice [10]. The Sustainable Development Goals (SDGs), adopted by the United Nations in 2015, offer a global framework to improve quality of life and achieve equitable and sustainable development [11]. In the university context, several of the 17 SDGs are directly related to the quality of university life:

SDG 3 on health and well-being: This goal is directly related to efforts to improve the physical and mental health of students, teaching staff and administrators [12]. Universities have increased the creation of psychological support programs, health services and promotion of physical activity.

SDG 4 on quality education: This central objective seeks to ensure inclusive and equitable quality education [13]. For the quality of university life, this implies improving the accessibility, relevance and quality of teaching, ensuring that all students have access to educational opportunities without discrimination.

SDG 5 on gender equality: Promoting gender equality in universities is essential to improve the quality of life of all those involved [14]. Anti-discrimination and anti-harassment policies, along with the promotion of gender equity, play an important role in this context.

SDG 10 on reducing inequalities: In the university field, this objective promotes equal access to higher education, eliminating economic, social or cultural barriers, and ensuring that disadvantaged groups can access quality education [15].

SDG 11 on sustainable cities and communities: Universities are key players in creating sustainable communities and promoting urban sustainability [16]. This includes reducing the environmental impact of campuses, improving green infrastructure and promoting sustainable practices in university operations.

SDG 13 on climate action: Universities play a fundamental role in climate change education and awareness [17]. University actions towards sustainability and carbon emission reduction are part of the quality of life on campus, involving students in responsible practices.

The SDG framework has pushed universities to integrate sustainability and wellbeing into their agendas, which has had a positive impact on the quality of university life [18]. Implementing sustainable policies, promoting equality, equitable access to resources, and creating environments that support both physical and mental wellbeing are key to improving the university environment.

University quality of life has evolved from being an issue related only to infrastructure and academic performance to a more holistic approach that includes

well-being, equity, participation, sustainability and social responsibility, all framed in the Sustainable Development Goals. However, the dimensions of quality of life have not been associated with university governance as a management system for the SDGs [19]. Therefore, the objective of this work was to confirm the factorial structure of an instrument that measures the dimensions of university quality of life in relation to the implementation of the SDGs in governance. Are there significant differences between the theoretical structure of quality of life and the empirical structure of university governance in the context of the implementation of the SDGs? The premise on which this work starts warns that the quality of university life is the result of the implementation of a governance which is based on the SDGs [20]. Consequently, differences are expected, since each governance is built according to a system of priorities in which the parties involved agree according to the capacities that the system allows them to use to implement the SDG guidelines.

2. Method

Design. A cross-sectional, psychometric and confirmatory study was conducted with a sample of 100 students selected based on their affiliation with institutions committed to the implementation of the SDGs:

Instrument. The Quality of Life Scale was used (see appendix A). It includes the following dimensions: 1) Physical and Mental Well-being, 2) Infrastructure and Resources, 3) Educational and Social Environment, 4) Participation and Governance, 5) Sustainability and Social Responsibility, 6) Equity and Social Justice. Reliability reached alphas and omegas higher than the minimum required of 0.70 with respective values of 0.769 and 0.798. Adequacy reached a value of 0.654 and sphericity was significant. Validity ranged between 0.435 and 0.675, explaining 65% of the variance. **Procedure.** Respondents were invited to a focus group to discuss the concepts of the instrument. They were invited to evaluate the instrument's items using the Delphi technique. They were surveyed at their university facilities. Prior to the studies, they were informed about the objectives and responsibilities of the study. **Analysis.** The data were captured in Excel and processed in Google Colab (see appendix B). The coefficients of reliability, adequacy, reliability, validity, adjustment and residual were estimated in order to contrast the hypothesis regarding the differences between the theoretical and empirical structure. Values close to unity were assumed as evidence of non-rejection of the null hypothesis.

3. Results

The analysis of covariances between the indicators suggests the incursion or not of other indicators in the observable structure. Values approaching zero suggest the inclusion of other indicators in the observed structural model. The analysis of the factor structure indicates the relationships between the variables and the measurement errors with respect to the first-order factors and a second-order factor that the literature identifies as quality of life. The results suggest that quality of life is structured into four factors related to 1) infrastructure and resources, 2) Social and Environmental Education, 3) Participation and Governance, 4) Sustainability and Social Responsibility, all with their respective 12 indicators. The fit and residual values [$\chi^2 = 411.332$ (50 gl) $p > 0.001$; GFI = 0.979; RMSEA = 0.000; SRMR = 0.091], as well as the R² percentages of explained variance (IR = 0.919; ESE = 0.880; PG = 0.791) suggest the non-rejection of the null hypothesis regarding the differences between the theoretical structure with respect to the observed empirical structure.

4. Discussions

The contribution of this work to the state of the art lies in the establishment of a confirmatory factor model of four of the six theoretical dimensions that make up the quality of life in a university governance scenario of the SDGs. The literature on quality of life and university governance covers various aspects of governance and its impact on the well-being of individuals within educational institutions [21]. The relationship between social capital and government performance in American cities highlights the importance of social connections in improving the quality of government services. The correlation between students' use of campus green spaces and perceptions of quality of life emphasizes the role of environmental factors in shaping student well-being. The association between e-governance and quality of life on a global scale emphasizes the importance of digital platforms in improving

municipal services and citizen engagement. The effects of massive university enrollment on non-academic activities, including student quality of life, at the university underscores the impact of student population size on university operations [22]. Medical students' quality of life highlights the importance of well-being in the context of medical education. The role of governance quality in influencing the impact of public health spending on health outcomes emphasizes the importance of effective governance in health care systems. University governance and quality of life at work, emphasizes the importance of a balanced approach to governance in higher education institutions [23]. The relationship between governance and quality of life in smart cities, highlights the importance of sustainable development goals in urban governance. The literature review indicates a growing interest in understanding the intersection of governance, quality of life and well-being in various contexts, including educational institutions and urban environments. These studies underscore the importance of effective governance practices in improving the quality of life of individuals and communities. In line with the literature reviewed, this paper found that the quality of life derived from university governance of the SDGs includes dimensions related to 1) infrastructure and resources, 2) Social and Environmental Education, 3) Participation and Governance, 4) Sustainability and Social Responsibility. In this sense, the area of opportunity lies in the confirmation of two factors related to Physical and Mental Well-being, as well as Equity and Social Justice. It is recommended to extend the sample size in order to confirm the theoretical structure of quality of life in university governance of the SDGs.

4. Conclusions

The objective of this work is to establish a confirmatory factorial model of quality of life in university governance of the SDGs. The results confirm four of the six factors cited in the consulted literature. In relation to the state of the art where the close relationship between quality of life, university governance and the SDGs is highlighted, this work corroborates the importance of this structure if the inclusion of the four factors found and the two factors to be confirmed is considered

Author Statements:

- **Ethical approval:** The conducted research is not related to either human or animal use.
- **Conflict of interest:** The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper
- **Acknowledgement:** The authors declare that they have nobody or no-company to acknowledge.
- **Author contributions:** The authors declare that they have equal right on this paper.
- **Funding information:** The authors declare that there is no funding to be acknowledged.
- **Data availability statement:** The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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