Financial and Academic Sustainability in the Governance of Higher Education Institutions

Muneer Ahmed Mirjat*, Shafei Moiz Hali†

Abstract

Faculty members' perceptions of sustainability in higher education institutions are influenced by environmental ethics, knowledge, and institutional culture, with institutions being strongly committed to prioritizing sustainability. Teachers' perceptions of teaching sustainability may vary across disciplines. An important factor that must be investigated and comprehended in higher education institutions is teachers' perception of sustainability for governance. A sample of 443 faculty members was selected from a total of almost 50,000 faculty members. Data were gathered using a survey questionnaire with five points Likert scale. Data were collected through personal visits and Google Forms and data was analyzed by using IBM SPSS 24.0. The results reveal a large gap between the public and private sectors. There was no statistically significant difference in the mean scores for the categories between the institutions under the Tenure Track System (TTS) and those under the Basic Pay Scale (BPS). Differently skilled faculty members have differing opinions about how long university governance structures can last. The standard deviation was 5.419, and the mean sustainability factor value for male responders was 17.12. The independent t-test (t (443) =1.268, p>0.05) shows that there is no significant difference in the mean scores of male and female respondents. The average sustainability rating of respondents from public institutions was higher than that of respondents from private institutions (mean = 14.83, SD = 5.084; mean = 17.76, SD = 5.379). An independent t-test revealed a significant difference between respondents from public and private institutions (t (443) =4.781, p>0.05).

Keywords: sustainability, teachers, perception, higher education, governance.

Introduction

From a financial and academic standpoint, it is critical to understand how faculty members perceive sustainability for good

* PhD Scholar at Department of Government and Public Policy (GPP), National Defense University (NDU), Islamabad. Email: muneeahmed@ndu.edu.pk

† Head and Associate Professor at Department of GPP, NDU, Islamabad. Email: shafeimoizhali@ndu.edu.pk

governance in higher education institutions (Alvarez-Risco, Del-Aguila-Arcentales, Rosen, García-Ibarra, & Maycotte-Felkel, 2021). Higher education institutions have vowed to incorporate sustainability into their mission, strategic plans and institutional budget plans. Teachers' perceptions of teaching sustainability may vary across disciplines. An important factor that must be investigated and comprehended in higher education institutions is teachers' perception of sustainability for governance (González-Geraldo, Monroy, & Del Rincón Igea, 2020). For several reasons, it is crucial to understand how faculty members at higher education institutions perceive sustainability. Above all, faculty personnel are essential to the implementation of sustainability projects at higher education institutions (Ndofirepi, 2023). The level of subject-matter expertise of teachers determines how much they incorporate sustainability into their lesson plans and instructional techniques. Furthermore, their opinions about sustainable practices in higher education governance may influence the institutional culture and commitment to sustainability. Several factors influence teachers' perceptions on sustainability in higher education, according to a study by Purwianingsih, Novidsa, and Riandi (2022).

Saiful and Setyorini (2022) suggest that educators who possess strong moral principles and a sense of responsibility towards their university could embrace a more all-encompassing and cohesive strategy towards sustainability. Additionally, as educators gain a deeper comprehension of sustainability concepts, their viewpoints could shift. According to Žalėnienė and Pereira (2021) those who have completed professional development or training in sustainability for excellent education, for instance, may be better able to understand the concept.

According to Adams et al. (2017), Teachers' opinions about sustainable governance in higher education can also be influenced by institutional culture and surroundings. Teachers' perceptions on sustainability in Pakistan's higher education system are influenced by institutional commitment and encouraging work conditions. It could be more challenging for the university to produce exceptional graduates and research because of its limited funding and hostile research and teaching environment. Adopting sustainable practices by instructors may be

encouraged by offering sufficient resources and cultivating a healthy work environment.

Objective of the study

This study aimed to find out the perception of faculty members perception about academic and financial sustainability of faculty members at higher education institutions.

Significance of the study

Sustainability concepts needed to be included into institutional governance for educational institutions to be financially and operationally effective. Developing sustainable practices in higher education requires encouraging interdisciplinary collaboration and taking information about the institution's supportive learning environment into account. It could be required to create specialized curriculum and programs, incorporate sustainability concepts into other academic disciplines, and introduce sustainable management practices on college campuses in order to make sustainability a reality. The opinions of teachers toward sustainability directly affect student engagement and the school's standing, which in turn can affect a student's financial situation and academic performance. Promoting interdepartmental cooperation and integrating environmental studies into the core curriculum are two important components of this approach.

Literature Review

For a variety of reasons, faculty members may hold different opinions about sustainability and governance in higher education. These differing opinions may be the result of societal roles, gender conventions, personal experiences, and beliefs (Buddhika et al. 2020).

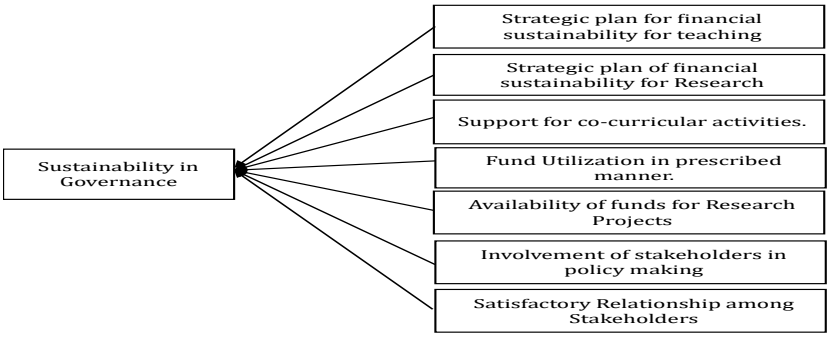
A variety of factors, including faculty composition, personal experiences, views, and academic specializations, impact higher education instructors' opinions on sustainability (Blundell et al., 2020). The disciplinary history of a teacher could also be important. A 2020 study suggests that due of the differences in their institutional backgrounds, beliefs, and ambitions, researchers in the humanities and social sciences

may have a deeper understanding of sustainability than their counterparts in other disciplines (Filho et al., 2021).

Teachers' perspectives on sustainability are shaped by their experiences and interactions within the community. One of the main responsibilities of educators is to incorporate sustainability principles into the curriculum and provide learning activities that encourage critical thinking, active involvement, and problem-solving abilities relevant to sustainable development (Rusinko 2010).

Public sector teachers may perceive sustainable government as being more decentralized, emphasizing accountability and openness, and including a variety of stakeholders in the decision-making process (Bauer et al. 2021).

Faculty at private sector institutions perceive sustainable governance as centralized and driven by institutional leaders and profits due to different institutional structures, values, and objectives (Filho et al., 2021). The type of academic appointment that a faculty member hold may also influence how they perceive sustainability in higher education. For instance, tenured faculty members would benefit from greater job security and academic freedom, which would enable them to prioritize sustainability efforts without worrying about the consequences (Hertzog, 2017). However, adjunct or non-tenure-track faculty members could experience reduced job security and limited participation in institutional decision making, which might affect how they perceive sustainability in higher education. Over long-term sustainability measures, these professors could place a higher prioritize short-term job security and income. According to Aldosari, (2020), faculty members with research-based posts may prioritize sustainability in higher education in their scientific pursuits and publications. For sustainable development to be successfully integrated into the academic and financial aspects of higher education institutions, faculty support and engagement are essential. Sustainable development is a complex and all-encompassing term.



Source: **Committee of University Chairs (2020).** ***Figure: 1 Sustainability indicators for higher education institutions***

The CUC guidelines for sustainability development provide a useful framework for higher education institutions to incorporate sustainable practices and concepts into their everyday operations and strategic decision-making processes (Furstenau, et al., 2020). This strategy emphasizes how critical it is to advance a thorough comprehension of sustainability that considers its scholarly, social, and economic facets. By adhering to sustainability development principles established by organizations such as the CUC, higher education institutions can guarantee that campus administration follows sustainable practices and structures (Filho et al., 2021). According to the Higher Education Code of Governance (2020), institutions need to consider the following important governance factors:

1. Well-defined rules and procedures to serve as a roadmap for sustainability efforts.
2. Transparency in decision-making processes and clear reporting on sustainability performance.
3. Accountability systems to monitor sustainability initiatives, track key indicators, and regularly assess/revise goals.
4. Stakeholder engagement and collaboration with students, faculty, staff and local communities.

5. Sustainable campus management practices like promoting eco-friendly transportation, sustainable food sourcing, energy efficiency and developing green spaces.
6. Integrating sustainability concepts across curricula through dedicated programs, courses, modules and interdisciplinary instruction methods.
7. The aim is for institutions to comprehensively embed sustainability into governance structures, operations, reporting and academics.

Strategic plan for financial sustainability for teaching

In higher education institutions, academic sustainability refers to the integration of sustainable practices and concepts into teaching and learning processes (Brown, 2022). In higher education institutions, teachers' perceptions of academic sustainability include their knowledge of and appreciation of the significance of sustainability in their teaching methods. The development of students' critical thinking abilities, ethical awareness, and knowledge of sustainable practices that can be applied across disciplines are all important components of teaching sustainability, according to educators, who see it as integral to their profession.

As an integrative notion that encourages experiential learning, critical thinking, and problem-solving abilities, sustainability is seen as being important by teachers in higher education. They place a high priority on sustainability in their instruction because they understand how it is linked to the social, environmental, and economic systems. The ability of institutions to efficiently manage their financial resources is referred to as financial sustainability, which is impacted by elements including financial restrictions, financing sources, and institutional priorities.

Hypothesis of the study

To determine the perception of teachers regarding sustainability in higher education, the following null hypothesis formulated:

$H^0$1: There is no significant difference in faculty members' perceptions of sustainability in higher education based on their gender, institutional type, faculty appointment structures, qualifications, and work experience.

Research Methodology

The purpose of this study was to determine how faculty members felt about the sustainability of higher education governance in Pakistani universities. Teachers' data were gathered using survey questionnaire using google forms. A selection of faculty members was chosen using Solvin's formula for Sample selection.

Participants	Population	Sample Selecti	Sample size
Faculty Memb		Slovin	n =]

In this study, we focused on how Pakistani university instructors perceived the sustainability component in higher education.

Data collection instrument

To gather information from university instructors in Pakistan, based on the higher education code of governance established by the Committee of University Chairs (CUC), the researcher developed a questionnaire. The nomenclature and organizational structure of university bodies were taken into consideration when customizing a questionnaire designed to measure the perceptions of faculty members in Pakistan. It was approved by professionals with expertise in the fields of educational leadership and governance. Reliability was also evaluated following the initial pilot testing. The questionnaire's Crohn's Bach Alpha was 0.903, demonstrating the strong coherence of the initial survey items. In the survey, teachers' perspectives on the sustainability mechanism in higher education institutions were sought.

Table I:
Faculty members' Demographics

Demographic Items	**Fre**	**Percentile**
Age:		
21-25		3.6%
26-30		16.9%

31-35	24.6%
36-40	30.9%
41-45	23.9%
Experience:	
5 Years	44.0%
10 Years	3.8%
> 10 years	6.5%
> 15 years	45.6%
Qualification:	
Undergraduate	5.0%
Graduate	22.1%
Postgraduate	72.9%
Structure of Service:	
Basic Pay Scale (BPS)	71.8%
Tenure Track System (TTS)	27.5%
Others	.7%
Type of Institution:	
Public Sector	80.1%
Private Sector	19.9%
Gender:	
Male	64.1%
Female	35.9%

Source: Survey conducted by the Authors

Table 1 above demonstrates out of 443 respondents two hundred and eighty-four were male and one hundred and fifty-nine were female participants. Most of the respondents belonged to public sector with 81.1 %. Whereas only 19.9% responded were from private sector. Table 1reveals that only 3.8% of participants had ten years of experience,

whereas the majority had five. The Basic Pay Scale (BPS), which comprises 71.8% of the workforce, serves as the foundation for the service system. There are 35.9% female and 64.1% male in the population. The data were collected using proportionate sampling technique therefore the responses received according to the available size of population. Qualification levels are distributed as per different disciplines, such as, arts and culture, medical, engineering, sciences, and social sciences. This thorough summary aids in understanding the traits and diversity of the sample population.

Data Analysis

The statistical package of the Social Science (SPSS) program was used to evaluate this data using Mean and t-tests, Analysis of Variance (ANOVA), and Standard Deviation. The t-tests for independent samples were utilized for the data analysis of the participant's gender, service structure, institution type, and basics. Whereas one-way analysis of variance (One-way ANOVA) evaluated respondents' perceptions of sustainability in higher education by analyzing their ages, qualifications, and experience as faculty members. To evaluate the significance of the replies, the T-test and ANOVA were used to compare all the sustainability characteristics mentioned above.

Table II:

Independent sample t-test results on faculty perceptions of sustainability in Higher Education concerning their gender and type of institutions.

Sustainability Factor in HEI's Governance	P-Value
Factors of Sustainability	.953
	.447

.000

Data on sustainability elements in higher education institutions' governance are shown in the table, with respondents broken down into male, female, public, and private respondents, BPS and TTS. The information contains sustainability-related criteria, respondents' comments, and the proportion of respondents in each category. Male respondents gave a mean score of sustainability factor value of (t (443=1.268; p>0.05), and (Mean Score=17.12;) with a standard deviation of (SD=5.419). The mean rating for female responders is (Mean score=17.28), while the standard deviation is (5.503). The average rating among public responses is (17.76), and the standard deviation is (SD=5.379). The independent t-test score for public and private institutions shows (t (443=4.781; p>0.05), the mean score rating among private respondents is (Mean Score=14.83), and the standard deviation is (5.084). T-values and p-values, whereas the mean score rating among public institutions respondents is (Mean score =17.75; SD 5.379). Similarly, the data from BPS and TTS structure of the faculty members' appointments shows that (t (443=.000; p>0.05), with BPS (Mean score= 17.81; SD=5.561) and TTS (Mean score= 15.58; SD 4.772) indicating significant differences between BPS and TTS faculty members.

Table III:
ANOVA of faculty members having different levels of Qualification

	Sum of Squares	DF	Mean Square	F	Sig.
Between Groups	6.928	23	.301	.945	.537
Within Groups	133.555	419	.319		
Total	140.483	442			

Table III shows an Analysis of variance in the sustainability of higher education institutions among faculty members of Pakistani universities. The F-value is (.945) and the p-value (.537) within faculty members was not significant at 0.05 level of significance, the null hypothesis stated that there is no significant difference among faculty members' perception of sustainability in Higher education regarding their qualifications. was not rejected and it is concluded that there is no significant difference in the views of faculty members about the sustainability of higher education institutions all the faculty members belong to different levels of qualifications such as undergraduates, graduates, and postgraduates all are on the same page for perceive the sustainability of higher education institutions.

Table IV:

ANOVA table for Faculty Members' Perceptions about Sustainability in Higher Education Based on their Work Experience.

Ability Group	Sum of Squa	Dl	Mean SquFrequency		F	Sig
Between Groups	87.931	23	3.823	195 17	1.963	.005
Within Groups	816.204	41	1.948	29		
				202		
Total	904.135	44		443		

Table IV shows an Analysis of variance in the sustainability of higher education institutions among faculty members of Pakistani universities. The F-value is (1.963) and the p-value (.005) within faculty members' experiences was not significant at a 0.05 level of significance, the null hypothesis stated that There is no significant difference among faculty members' perception of sustainability in Higher education based on their work experience, was not rejected and it is concluded that there is no significant difference in the views of faculty members about the

sustainability of higher education institutions all the faculty members belong to 5years, 10years, more than 10 years, more than 15 years, work experience perceive the sustainability of higher education institutions at the same way.

Findings

For respondents who are male, the mean sustainability factor score is 17.12, with a standard deviation of 5.419. The mean score of the female respondents was much higher (17.28), with a comparable standard deviation of 5.503. Male and female respondents' mean scores do not significantly differ from one another, according to the independent t-test ($t(443)=1.268$, $p>0.05$).The average sustainability rating of respondents from public institutions was higher than that of respondents from private institutions (mean = 14.83, SD = 5.084; mean = 17.76, SD = 5.379). An independent t-test revealed a significant difference between respondents from public and private institutions ($t(443)=4.781$, $p>0.05$). Compared to faculty members under the TTS (Tenure Track System) structure (Mean = 15.58, SD = 4.772), those under the BPS (Basic Pay Scale) structure had a better mean sustainability rating (Mean = 17.81, SD = 5.561). The t-test ($t (443) =.000$, $p>0.05$) reveals a significant difference in the sense of sustainability between faculty members at BPS and TTS. Based on their qualifications, faculty members' perceptions of sustainability do not differ significantly, according to analysis of variance (ANOVA) results ($F=0.945$, $p=0.537$).

This shows that professors of various degrees (undergraduates, graduates, and postgraduates) have comparable perspectives about sustainability in higher education. ANOVA shows that there is no significant variation in the perception of sustainability among faculty members according to their job experience ($F=1.963$, $p=0.005$). Faculty members' views on sustainability in higher education are similar, even though their tenure has fluctuated. The results indicate that, in general, faculty members have a consensus regarding the perception of sustainability in higher education, notwithstanding variations in perception based on gender, type of institution, and faculty composition, and regardless of their educational backgrounds or work experiences.

Discussion and Conclusion

The survey discovered that public sector universities had higher mean ratings, which suggests that higher education institutions had a superior degree of financial sustainability. Faculty appointed under the Basic Pay Scale (BPS) system tend to view academic and financial sustainability more strongly than academics hired under the Tenured Track System (TTS), even though their mean scores are higher. The mean scores of the BPS and TTS respondents differed significantly, indicating that the two groups view sustainability issues connected to higher education governance from different angles.

Regarding how faculty members in higher education see sustainability issues, there are no appreciable disparities between male and female faculty members. According to the findings, faculty members at different experience levels—such as undergraduates, graduates, and postgraduates—all have similar perspectives about sustainability in higher education institutions. Public institutions appear to have higher mean scores, suggesting more robust sustainability concerns incorporated into their governance then private institutions.

Faculty members' perceptions differ from their duties and roles, faculty members' perceptions about the sustainability of a higher education institution (AlGhamdi, 2022). Faculty views on the viability of institutions of higher learning considering the qualifications of their faculty depending on their degree of education, faculty members at higher education institutions may have different perspectives on sustainability (Bischof, 2022). Higher-level credentials, such as graduate degrees or certificates in sustainability or related subjects, may indicate that a faculty member is more committed to and knowledgeable about sustainability.

Higher qualifications may indicate a faculty member's deeper understanding of and dedication to sustainability. Graduate degrees or certificates in sustainability or related fields are a few examples of these qualifications.

Higher education institutions worldwide are integrating sustainability into their governance structures to uphold academic standards and promote a sustainable society. This include putting sustainability into practice, setting up committees dedicated to sustainability, and integrating sustainability into mission statements and

strategic objectives. Studies reveal that social and economic dimensions of sustainability in higher education governance are also included, contributing to the advancement of gender equality and inclusivity. Research on gender and sustainability in higher education can reveal opportunities and barriers for achieving these goals (Niedlich et al., 2019). Blundell, Castañeda, and Lee (2020) propose that a multitude of factors influence higher education faculty members' perspectives toward sustainability.

These consist of their backgrounds, perspectives on the world, education, and type of faculty position. Teachers of the natural sciences are more cognizant of academic matters, according to Fuzi et al. (2022), which could influence how they approach teaching sustainability (Rusinko, 2010). According to UNESCO, educators in the humanities and social sciences ought to approach sustainability from a wider perspective, given the way that higher education institutions interact with society (Ferguson, Roofe, & Cook, 2021).

How teachers see sustainability is influenced by their ties to and experiences in the community. In designing learning activities that encourage critical thinking and incorporating sustainability into the curriculum, teachers must actively participate in lessons and possess problem-solving skills related to sustainable development (Rusinko, 2010).

Recommendations

1. The study of sustainability in higher education is advised because it can influence positive social change and gives students the information and abilities they need for their careers.
2. Higher education institutions that embrace sustainable practices can set an example for other institutions and help to create more sustainable communities.
3. Additionally, research on sustainability in higher education may offer insightful information and statistics on the efficacy of various methods and tactics, enabling ongoing development and improvement of sustainability programs.
4. Greater comprehension and creativity in sustainable practices may result from this, both inside the institution and in society at large. In

conclusion, a more sustainable future depends on the study of sustainability in higher education.

References

Adams, R., Martin, S., & Boom, K. (2017). University Culture and Sustainability: Designing and Implementing an Enabling Framework. *Journal of Cleaner Production*. doi:10.1016/j.jclepro.2017.10.032

Aggarwal, S., & Singh, A. K. (2022). Developmental, Relational and Facilitating (DRF) Organizational Culture Scale: An Empirical Study in Select Colleges of University of Delhi. *Global Business Review*. From Aggarwal, Saumya and Singh, Ajay Kumar, Developmental, Relational and Facilitating (DRF) Organizational Culture Scale: An Empppapers.ssrn.com/sol3/papers.cfm?abstract_id=4165374

Aldosari, S. A. (2020). The Future of Higher Education in the Light of Artificial Intelligence Transformations. *International Journal of Higher Education, 9*(3). doi:10.5430/ijhe.v9n3p145

AlGhamdi, A. A. (2022). Artificial Intelligence in Education as a Mean to Achieve Sustainable Development in Accordance with the Pillars of the Kingdom's Vision 2030—A Systematic Review. *International Journal of Higher Education, 11*(4). doi:10.5430/ijhe.v11n4p80

Alvarez-Risco, A., Del-Aguila-Arcentales, S., Rosen, M., García-Ibarra, V., & Maycotte-Felkel, S. (2021). Expectations and Interests of University Students in COVID-19 Times about Sustainable Development Goals: Evidence from Colombia, Ecuador, Mexico, and Peru. *Education, Political Science 13, 3306*.

Bauer, M., Rieckmann, M., Niedlich, S., & Bormann, I. (2021). Sustainability Governance at Higher Education Institutions: Equipped to Transform? *frontiers in sustainability, 2*, 1-4. doi:10.3389/frsus.2021.640458/full

Bischof, J., Dutzi, A., & Gros, M. (2022). Sustainability reporting and risk governance. *Journal of Business Economics*, 1-6 .

Blundell, G. E., Castañeda, D. A., & Lee, J. (2020). A Multi-Institutional Study of Factors Influencing Faculty Satisfaction with Online Teaching and Learning. *A Multi-Institutional Study of Factors*

Influencing Faculty Satisfaction with Online Teaching and Learning, 24(4), 229-253.

Bormann, E. G. (1972). Speech communication : an interpersonal approach.

Bormann, I., Brøgger, K., Pol, M., & Lazarová, B. (2021). COVID-19 and its effects: On the risk of social inequality through digitalization and the loss of trust in three European education systems. *Education in Europe and the COVID-19 Pandemic, 20*(5). doi:.org/10.1177/14749041211031356

Brown, A. (2022). *Transforming higher education for global sustainability: 2022 UNESCO report.* Association for the Advancement of Computing in Education.

Buddhika, H. K., & Gunawardana, T. (2020). The impact of E-Banking on Customer Satisfaction in Private Commercial Banks, Sri Lanka. *Conference: 9th International Conference on Management and Economics – 2020At: Matara, Sri Lanka*, 353-378.

Ferguson, T., Roofe, C., & Cook, L. D. (2021). Teachers' perspectives on sustainable development: the implications for education for sustainable development. *The implications for education for sustainable development, Environmental Education Research,, 27*(9), 1343-1359. doi:10.1080/13504622.2021.1921113

Filho, W. L. (2019). *Encyclopedia of Sustainability in Higher Education.*

Filho, W. L., Salvia, A. L., Frankenberger, F., Mohammed Akib, N., Sen, S. K., Sivapalan, S., . . . Emblen-Perry, K. (2021). Governance and sustainable development at higher education institutions. *Environ Dev Sustain 23*, 6002–6020. doi:doi.org/10.1007/s10668-020-00859-y

Furstenau, L. B., Sott, M. K., Kipper, L. M., Machado, E. L., Lopez-Robles, J. R., Dohan, M. S., . . . Imran, M. A. (2020). Link between Sustainability and Industry 4.0: Trends, Challenges and New Perspectives. *School of Engineering & Physical Sciences, 8*, 1-18.

Fuzi, N. M., Habidin, N. F., Ashaari, A., Abdullah, M., Adam, S., Md Salleh, N. Z., & Yee Ong, S. Y. (2022). A Conceptual Framework for the Implementation of Corporate Social Responsibility Practices and Performance. *International Journal of Academic Research in Business and Social Sciences, 12*(3), 401–407.

González-Geraldo, J., Monroy, F., & Del Rincón Igea, B. (2020). Impact of a spanish Higher Education teacher development programme on approaches to teaching. Psychometric properties of the S-ATI-20 scale. *Educación XX1* .

Govender, P. (2022). *Benefits of Financial Management for Higher Education Institutions.* Pravie Govender. From https://education.adaptit.tech/blog/benefits-of-financial-management-for-higher-education-institutions/

HEI Assessment for the SDGs. (2021). *Assessments of Higher Education's progress towards the UN Sustainable Development Goals.*

Hertzog, M. J. (2017). History of Tenure and Academic Freedom in the USA. In *Protections of Tenure and Academic Freedom in the United States* (pp. 23-82). Palgrave Macmillan, Cham. doi:doi.org/10.1007/978-3-319-56270-4_2

(2020). *Higher education institutions' engagement with the community.* UNESCO.

Internal and External Stakeholders in Higher Education. (2018). In S. J. Marshall, *Shaping the University of the Future* (pp. 77–102). Springer, Singapore. doi:10.1007/978-981-10-7620-6_4

Kanyumba, B., & Lourens, M. (2021). Talent retention strategies for female academics in the higher education sector. *Kanyumba, B., & Lourens, M. (2021). Talent retention strategies fInternational Journal of Research in Business and Social Science (2147- 4478)*.

Kougias, K., Sardianou, E., & Saiti , A. (2023). Attitudes and Perceptions on Education for Sustainable Development. *Circ.Econ.Sust, 3*, 425–445. doi:10.1007/s43615-022-00174-w

Loureiro, P., Dieguez, T., & Ferreira, I. (2022). Higher education as a driver for sustainable transformation and leadership. *Loureiro, Paula, Teresa Dieguez and Isabel Ferreira. "Higher education as a driver for suInternational Journal of Multidisciplinary Research and Growth Evaluation*.

Ndofirepi, T. M. (2023). Predicting the Sustainability-Oriented Entrepreneurship Intentions of Business School Students: The Role of Individualistic Values. *Social Sciences, 12*(1).

Niedlich, S., Kummer, B., Bauer, M., & Bormann, I. (2019). Cultures of sustainability governance in higher education institutions: A

multi-case study of dimensions and implications. *Education Higher Education Quarterly, 74*, 373-390.

Purwianingsih, W., Novidsa, I., & Riandi, R. (2022). Program for Integrating Education for Sustainable Development (ESD) into Prospective Biology Teachers' Technological Pedagogical Content Knowledge (TPACK). *Jurnal Pendidikan IPA Indonesia*

Saiful, J. A., & Setyorini, A. (2022). Ecocriticism Course: Development of English Pre-service Teachers' Pedagogical Content Knowledge of Sustainability. *Journal of Teacher Education for Sustainability, 24*, 5-18.

Santos, G., Marques, C., Justino, E., & Mendes , L. (2020). Understanding social responsibility's influence on service quality and student satisfaction in higher education. *Santos, G.G., Marques, C.S., Justino, E., & Mendes, L. (2020). Understanding social responsibility's iJournal of Cleaner Production*.

Soni, V., & Banwet, D. K. (2021). Academic Governance Arragements. In *Chapter 6 Academic Governance Arrangements: Quality Assurance and Pandemic Impact.*

The HESI 2023 Global Forum. (2023). *Higher Education Sustainability Initiative.* The HESI 2023 Global Forum.

(2022). *The Higher Ed Funding Rollercoaster STATE FUNDING OF HIGHER EDUCATION DURING FINANCIAL CRISES.* NEA Research, in Partnership with ASA Research.

(2020). *The Higher Education code of governance.* UK: Committee of University Chairs.

(2020). *The Higher Education Code of Governance.*

(2022). Top Risks Report: Insights for Higher Education

(2023). *The Higher Education Sustainability Initiative (HESI).* United Nations.

Žalėnienė , I., & Pereira , P. (2021). Higher Education For Sustainability: A Global Perspective. *Geography and Sustainability, 2*(2), 99-106. doi:doi.org/10.1016/j.geosus.2021.05.001