Leadership Role in Developing Sustainability in Higher Education Institutes (HEIs): An Exploratory Study

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Abstract

The main theme of this study was to analyze the leadership role in developing sustainability in Higher Education Institutes (HEIs) in Pakistan. The nature of the research was descriptive; as a consequence, the study's data was gathered using a rating scale. The targeted population consisted of all faculty members and administration from Southern Punjab Universities, which were included in the Time Ranking of Higher Education in 2022. A random sampling technique was used to specify the sample. Data was assembled via a questionnaire and a checklist. For the collection of quantitative data, a questionnaire was intended on two factors, i.e. Leadership role (LR) and Sustainable development (SD). According to findings a strong relationship between leadership and sustainable development exists. The study recommended that additional funding should be provided to higher education institutes to work on sustainable projects.

Keywords: **Leadership, Sustainable Development, Higher Education, Governance, Southern Punjab, Time Ranking of Higher Education.**

I.   INTRODUCTION

Education for all is an initiative by UNESCO in 1990, indicating the importance of education for everyone. According to UNESCO, It is the right of every child to get an education for the sake of a healthy society (Fordham, 1992). A developed and prosperous community needs educated and skilled people. It is exactly like a healthy seed necessary for a fruitful crop, educated and qualified people are the Pre-requisite for a society that aspires to go on the path of progress and stability.

Education and training are part and parcel of a civilized society. It tells the rights and responsibilities of individuals and differentiates between ethical and unethical or lawful or unlawful practices. It's like a candle that lights up clouds of darkness and gives hope, direction, stability, progress and wealth to society. Education and training are the main sources that guide human beings in improving living standards that will finally shape a stable and prosperous society (Lee, 2012). To develop a civilized and competitive society, sustainable Higher Education Institutes (HEIs) are required.

Higher Education (HE) tells people how to compete globally and create opportunities for themselves and others. Higher education institutes along with collaboration with industries can perform certain functions such as curriculum design, implement courses, promote research and development which can lead to better sustainability and innovation in various fields. A nation's progress, revolution, and success depends upon Higher Education Institute. It is the responsibility of HEIs to enhance awareness about skills, knowledge, and values that play a significant role in creating a sustainable future for societies (Cortese & Benner, 2001). HEIs in any country takes the initiative for new technology, innovation, research culture and opens an avenue for advancement of the nation. In 2015 future agenda was set by United Nations along with five main features to be followed known as people, prosperity, peace, planet and partnership. These five components are interconnected with each other. This can be achieved by Education which is the 5th goal of sustainable development(SD)(Aung & Hallinger, 2023).

A critical driving force of the 2030 Agenda is education and without education implementation of sustainability could not possible. Universities and colleges worldwide are considering HEIs, whose main target is to develop upcoming professionals, conducting fruitful research, and contacting the community and stakeholders to face regional, local, and international challenges. For the advancement of sustainable goals, HEIs play a front role in creating inclusive and healthy societies as mentioned in the 2030 agenda of SD goals. The role of HEIs is multidimensional, such as, Higher Education Commission (HEC) is responsible for training staff members especially teachers, designing and implementing curriculum, introducing new academic approaches, developing leadership qualities in students or imparting novel or basic learning

methods through supporting innovative techniques. To fulfill above responsibilities an efficient and effective leadership is required (Khan, 2023). Leadership plays a positive role in the result-oriented functioning of HEIs.

Leadership has a dynamic role in an institute, especially at a higher education level that requires several different talents vision, commitment, research, development, skills, knowledge and integrity to inspire and lead generation (Dinh et al., 2014). Leadership is a process of setting goals and vision of an organization and to motivate others to achieve them collectively. Organizational success or failure depends upon leadership, without leadership, an organization cannot meet the set targets (Nicolescu & Verboncu, 2007; Sifat, 2019). Leaders assist to make people independent and provide professional support for their followers (Năstase, 2007; Sifat, 2019). Leadership has a basic feature of how to inspire others and prepare them as future leaders (Bass & Riggio, 2006; Novawan & Aisyiyah, 2020; Salman & Broten, 2017). Leadership plays a crucial role in HEI to promote sustainable development. The effective leadership also retain a keen eye on public aspirations, public policy formation and implementation requirements in order to achieve sustainable development goals (SDGs). With better management and advanced technology skills, a leadership can achieve the sustainability aspirations of year 2030.

Leadership takes initiatives for SD for example, universities introduce many sustainable projects such as recycling of resources, paper management, water management, green curriculum and solar systems. In Pakistan, many universities working on sustainable development such as National University of Science and Technology (NUST) and Lahore College for Women (LCWU). They are on 101- 400 ranking according to Times Higher Education ranking 2022. Leadership is the heart of sustainable development. It is leadership who takes initiative for sustainable development and guides people on how to achieve it. In 1987 Brundlent report was presented, according to which sustainable development is *"development that meets the needs of the present without compromising the ability of future generations to meet their own needs"*(White, 2013). Sustainable development (SDG) goals also known as international goals with a having vision to provide quality of education, equality, zero hunger, save lives on earth and below water, good health, build institution and partnerships by 2016-2030 (Harrington-Buhay, 2015). The concept of SDGs was introduced because of the scarcity of resources. HEC expects institutes (colleges, universities) to generate revenue according to their need and SDGs provide support in this matter. For instance, many universities install solar systems and produce electricity. In the absence of effective leadership, there is no development either socially, economically, or culturally in the field of research and development of various subjects such as core scientific subjects like physics, chemistry, and mathematics and also non-scientific subjects like information technology, arts, and social sciences etc.

It is obvious that the addition of SD in HE is the priority of the management as SD provide a pathway to manage all activities in a such way to preserve resources for next use. Furthermore, HEIs show prominent, endless funding, support and provide facilitation to management and offer proper guidance for the integration of SD in education. It is the concern of HEI leadership that deliver resources, set goals and vision, and establish a follow-up process. Organizations are grown grace of their leaders or the quality of leadership institutes. Pro. Dr. Attaul Rehman appointed by President Musharaf as chairman of the HEC in 2002 and he worked with dedication to bring fresh research and development to Pakistan. In his supervision, HE achieved milestones in many fields including Information technology, introducing a digital library and Pakistan Research Network for teachers' development. The credit for the outstanding performance of HEC goes to the Leadership of Dr Atta ur Rehman and his team. He also appreciated the quality of HEC leadership and he introduced such programs as "faculty development" and a $100,000 research grant for teachers after completion of a Ph.D. that brings eminence to higher education. Hayward acknowledge that leadership plays a decisive role in the development of HE (Hayward, 2022).

Keeping in view the whole scenario of leadership and sustainability and their significance for HEIs, current research was designed to explore their role for organizational development.

II.　OBJECTIVE AND STATEMENT OF THE PROBLEM

Leadership plays a vital role in development, sustainability and progress of any organization. Current study was focused "To evaluate the role of leadership for establishing sustainability in HEIs. The principal objective of concerned study is to examine the role of leadership in developing sustainability in HEIs.

III.　RESEARCH METHODOLOGY

A descriptive research design was chosen for this research. This research strategy is the famous and according to need of exploratory and descriptive research (Sekaran & Bougie, 2016). "To evaluate leadership role in establishing sustainability in HEIs". Quantitative research design was used to achieve current objective. According to Creswell (2002) Quantitative research is "the process of collecting, analyzing, interpreting, and writing the results of a study". For this study, two types of instrument were selected. First questionnaire was designed to get responses about the role of leadership and second a checklist was used to collect information regarding sustainable projects. After consideration of validity and reliability the tool was selected for data collection. Reliability of the tool was

calculated by Cronbach's Alpha, as the value of Cronbach's Alpha was higher than 0.07 for each item, that showed internal consistency of the tool. Respondents of research tools were university teachers and administration (Chairman, Dean, registrar, director of ORIC and QEC). Statements of questionnaire were about two factors, role of leadership and sustainable development, which were based on a 5 point Likert Scale of agreement. Whereas checklist consist of sustainable projects such as, recycling stations around campus, campus garden, solar system green curriculum, sustainability mobility in transport and resources, water, energy and paper management and bike rental program. The collected data is analyzed by through SPSS 20, depending on its nature. Quantitative data (questionnaire, checklist) is analyzed by SPSS 20 with different statistical tests like, Independent sample T-test, Pearson's Correlation applied to measure relationship between role of leadership and sustainable development. In check list, sustainable projects are analyzed by mean of frequency.

IV   RESULT DISCUSSION

Table-1 University leadership role

Sr	Statements	Mean	Sig	t-value
1	University's leadership is playing role in university progress.	3.94	.805	1.003
2	Leadership take in time decision related to operational activity.	3.95	.041	-.201
3	Decision are taken in consultation with governing bodies.	3.83	.023	-844
4	Leadership promotes integrity in academic activities.	3.93	.023	-1.489
5	Leadership promotes integrity in professional activities	3.94	.041	-.857
6	University culture support to sustainability	3.64	.720	691
7	University administration support research culture.	3.71	.909	423
8	Sustainable development are included in curriculum.	3.45	.174	-084

According to table 1, the statements about role of leadership in developing sustainability in HEIs are mentioned. Leadership is important in organization, particularly in education sector. Descriptive analysis shows that role of leadership is vital for the sustainable development. Gender analysis indicates that there is significant difference between mean scores of male and female related to role of leadership in developing sustainability in HEIs as P- value is less than .05.

Table-2 Leadership styles

Sr.	Statements	Mean	Sig	t-value
1	University's leadership maintaining discipline skills.	4.02	.436	1.049
2	University's leadership is trying a upgrade university ranking.	3.84	.322	2.88
3	Staff and student satisfied with the functioning of university.	3.62	.156	-.489
4	Vice Chancellor's role as democratic	3.72	.002	.1005
5	Rector's role as autocratic	2.87	.286	8.35
6	Ad minister's role as Laissez-faire	2.72	.410	1.529
7	University follows policy of HEC in a) academic matters	3.05	.035	-.467

8	b) financial matters	3.83	.144	-.897
9	c) discipline matters	3.85	.023	-.358
10	Teachers have liberty to show their reservation in front of head.	3.44	.436	-073

Table No 2, the statements about leadership styles and sustainability in HEIs are mentioned. Descriptive analysis shows that styles, (democratic, autocratic and laissez- faire) of leadership are playing dominant role in sustainable development. Majority of respondents are in favor of democratic leadership style as mean score is about 4. Gender analysis indicate that majority of male and female participants claimed same assessment as P- value (Greater than .05) demonstrate that there is insignificant difference between mean scores of male and female related styles of leadership in developing sustainability of HEIs.

*Table-3 Relationship between leadership and sustainable development*

Variables		LR	SD
Leadership Role (LR)	Pearson Correlation	1	.808**
	Sig. (2-tailed)		.000
	N	118	118
Sustainable Development(SD)	Pearson Correlation	.808**	1
	Sig. (2-tailed)	.000	
	N	118	118

**. Correlation is significant at the 0.01 level (2-tailed).

Correlation table indicates that there is a positive/ strong relationship between multiple factors of this study. Analysis shows that there is a strong and significant relation between role of leadership (LR) and sustainable development (SD). It is clear from the correlation result that the role of leadership is important element for sustainability. Leadership plays a vital role in reestablishing SD in institution. Thus who want and have vision can start the culture of sustainable development.

Table-4 Sustainable Projects

Sr.	Statements	YES	NO	To Some Extent
1	Paper management projects	83	13	22
2	Campus garden	74	27	17
3	Sustainability mobility in transport	73	30	15
4	Sustainability mobility in resources	64	31	23
5	Water management projects	62	31	25
6	Energy management projects	60	30	28
7	Solar system	59	34	25
8	Green curriculum	57	33	28
9	Recycling stations around Campus	32	58	28
10	Bike rental program	21	79	18
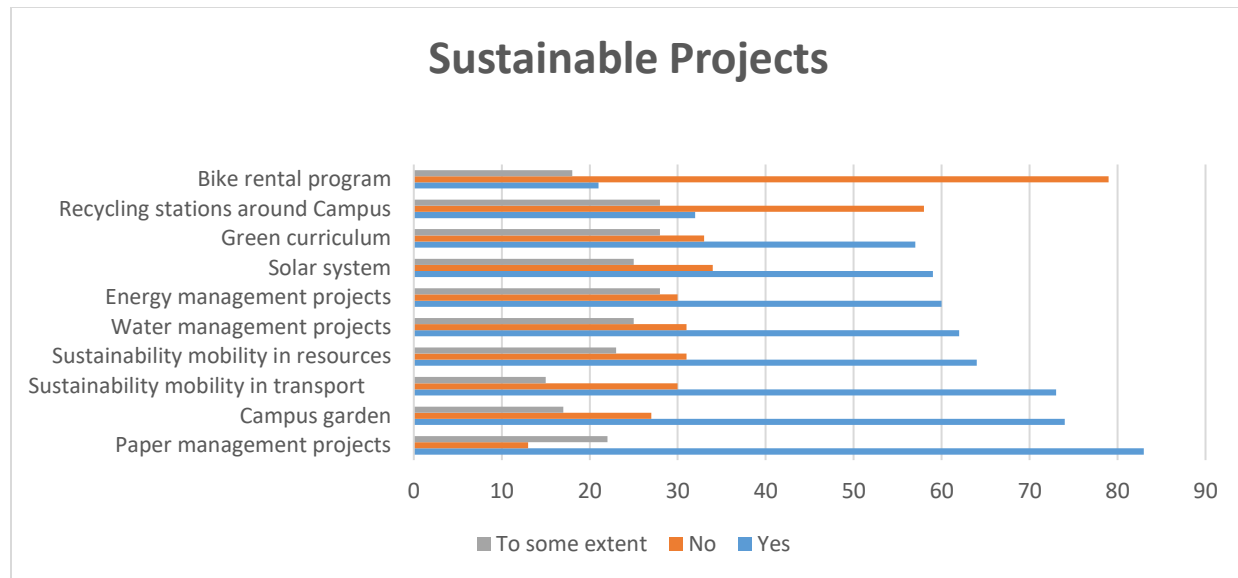
Graph shows the results of the checklist that consist of various factors to measure the sustainable project. About 83% respondents, paper, water and energy management projects are working in HEIs. Approximately, 74% respondents stated that campus garden projects had gained popularity in HEIs. Moreover, People prefer sustainability in resources and transport reported by 73% of respondents. According to 60% respondents, the installment of solar systems in Higher Education Institutes has completed and solar system are commonly used to save electricity. Green curriculum is focused in universities said 57% respondents. About 32% participant replied in favor of recycling stations and recycling stations around campus need to be focused. According to 21 % respondents replied about the use of bike rental programs. Bike rental program newly started in Pakistan and need to motivate people to use this opportunity to save money.

V.   DISCUSSION & CONCLUSION
        According to Warren G. Bennis, ***"Leadership is the capacity to translate vision into reality"*** (Weinfurter, 2013). Leader is a person who make possible to achieve milestone in the institutes. Leadership is the heart of an institute, effective and efficient leader create new paths for success. Organization cannot be denying the importance of leadership, especially, in education sectors it plays a motivating and visionary role in the development of sustainability (Asif, Asad, Bhutta, & Khan, 2021). This study was conducted to explore leadership role in developing sustainability in HEIs. Sustainable development is not a new term, phenomena, approach and concept, it is as old as human history and its roots found in human civilization but it got popularity in 1972. Before this concept people's preserve, food, crops, property and tried to keep environment healthy for their next generation. Sustainable development (SD) comes from two words to sustain (assist, support, encourage) the organization and able means capable to maintain and prepare developmental programs for organization and every nation try to sustain their resources and save for successors. Developed and developing countries worked on Sustainable Development Goals (SDGs) like Australia, Canada, Germany, Finland, Norway and Pakistan. Pakistani universities also working on SDGs and top priority projects such as paper management, water and energy management, campus garden, solar system, recycling station and sustainability in transport and resources. Bike rental program was newly started and need to motivate people to use this program and they can save money because of this project.
        Literature mentioned three leadership styles were mentioned (democratic, autocratic, Laissez-faire) and according to participants' perspective, democratic leadership style is more effective than autocratic, in which everyone have the right to share his/her opinions and decisions, while in autocratic leadership, people have to follow their subordinate that is unhealthy for the growth of sustainable development of any institute.
        Through the evaluation of the collected data, it clear that there is a close relationship between leadership and sustainable development. As discussed earlier, leadership is the heart of sustainable development, without an effective leadership, work on sustainability could not possible for any organization. In near past, higher education in Pakistan has achieved breakthrough under the supervision of great leadership of Pro. Dr. Atta-ur-Rehman.
        We may conclude from above discussion that SD is the hope, and human progress depends on it, without SD it is challenging to live a healthy and prosperous life for now and upcoming peoples. Leader is the person who has the capacity to change minds of people and guide them to follow SD and safe resources for future. Additionally, HEIs

play a significant role in progress of country, generates ideas to make policy for the implementation of such initiatives in true spirit to bring success, prosperity and wealth to the nations.

To achieve sustainable development, more funding should provide to HE to work on novelty and innovative plans and ideas related SD. Curriculum should be upgraded and it must include more content to promote sustainability. There should be a proper system of administrative bodies' training (Chancellor, Vice Chancellor, registrar, deans, treasure, controller of examination, head of department) to boost academia governance. Conferences, seminars and workshop should be organized for SD and motivate people to start their lives according to principles of sustainability.

REFERENCES

[1]   Asif, M. U., Asad, M., Bhutta, N. A., & Khan, S. N. (2021). *Leadership behavior and sustainable leadership among higher education institutions of Pakistan.* Paper presented at the 2021 Sustainable Leadership and Academic Excellence International Conference (SLAE).

[2]   Aung, P. N., & Hallinger, P. (2023). Research on sustainability leadership in higher education: a scoping review. *International Journal of Sustainability in Higher Education, 24*(3), 517-534. doi:10.1108/ijshe-09-2021-0367

[3]   Bass, B. M., & Riggio, R. E. (2006). Transformational leadership.

[4]   Cortese, A., & Benner, J. (2001). Education for sustainability: Content, context, and process of learning and research. *Retrieved November, 30*, 2002.

[5]   Dinh, J. E., Lord, R. G., Gardner, W. L., Meuser, J. D., Liden, R. C., & Hu, J. (2014). Leadership theory and research in the new millennium: Current theoretical trends and changing perspectives. *The leadership quarterly, 25*(1), 36-62.

[6]   Fordham, P. (1992). *Education for All: An Expanded Vision. World Conference on Education for All (Jomtien, Thailand, March 5-9, 1990). Monograph II. Roundtable Themes II*: ERIC.

[7]   Harrington-Buhay, N. (2015). Sustainable Development Goals A revolution begins. *Organisation for Economic Cooperation and Development. The OECD Observer*(303), 10.

[8]   Hayward, F. M. (2022). Pakistan: Top-Down Transformation *Fostering Institutional Development and Vital Change in Africa and Asia* (pp. 101-116): Springer.

[9]   Khan, S. (2023). Preparing Future-Fit Leaders for the Sustainable Development Era *The Sustainable University of the Future: Reimagining Higher Education and Research* (pp. 83-106): Springer.

[10]   Lee, K. (2012). Augmented reality in education and training. *TechTrends, 56*, 13-21.

[11]   Năstase, M. (2007). *Lideri, leadership şi organizaţia bazată pe cunoştinţe*: Editura ASE.

[12]   Nicolescu, O., & Verboncu, I. (2007). Managementul organizaţiei, Ed. *Economică, Bucureşti*.

[13]   Novawan, A., & Aisyiyah, S. (2020). The Role of Leadership in Education for Sustainable Development Curriculum Reform in Indonesian Higher Education. In E. Sengupta, P. Blessinger, & T. S. Yamin (Eds.), *Introduction to Sustainable Development Leadership and Strategies in Higher Education* (Vol. 22, pp. 145-159): Emerald Publishing Limited.

[14]   Salman, Y., & Broten, N. (2017). *An analysis of John P. Kotter's leading change*: Macat Library.

[15]   Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*: john wiley & sons.

[16]   Sifat, R. I. (2019). Role of leadership for achieving sustainable development goals. *GIS Business, 14*.

[17]   Weinfurter, D. J. (2013). The keys to effective leadership. *Second Stage Entrepreneurship: Ten Proven Strategies for Driving Aggressive Growth*, 171-188.

[18]   White, M. A. (2013). Sustainability: I know it when I see it. *Ecological Economics, 86*, 213-217.

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