Reality of Academic Leaders' Sustainable Professional Development at University of Bisha

Fatima A. AlAmiri[1], Amal A. Al-areqi[2], Raheima S. Alrashidi[3]

Abstract

This study aims to identify the current state of academic leaders' sustainable professional development at the University of Bisha. It utilized a descriptive method, employing questionnaires and interviews as research tools. The study involved 179 academic leaders, with 110 participants completing the questionnaire and 10 participating in interviews. The findings revealed that all areas of professional development for academic leaders at the University of Bisha received high scores, with an overall mean score of 3.94 and a standard deviation of 0.87. Academic teaching ranked highest among these areas, with an average score of 4.2 and a standard deviation of 0.84, indicating significant importance. Following closely, university leadership and management received a mean score of 4.07 and a standard deviation of 0.97, also indicating high significance. Environmental social responsibility ranked third, with a mean score of 3.9 and a standard deviation of 0.86, while scientific research ranked fourth with a mean score of 3.6 and a standard deviation of 0.84. Based on the interview data, the study provides proposals and recommendations for the sustainable development of academic leaders in the domains of academic teaching, scientific research, environmental social responsibility, and university leadership and management at the University of Bisha.

Keywords: *Sustainable Professional Development, Academic Leaders, University Leadership and Management*

INTRODUCTION

Saudi Arabia's interest in developing universities stems from their role as pillars of the modern economy, focusing on human resource development to advance societal goals and bolster institutional competitiveness in education. Universities are pivotal for community development, and Saudi Arabia aims to enhance their efficiency to achieve top global rankings, thereby elevating educational standards nationwide and broadening their influence (Al-Zaydi & Al-Shareef, 2023). Academic leaders within universities are crucial in setting goals, strategizing for the future, directing efforts, fostering creativity, and evaluating performance (Najmi, 2022). Their effectiveness is essential for universities to achieve their objectives by engaging colleagues, influencing behavior, nurturing creativity, and overcoming challenges (Al-Shareefi et al., 2021). Academic leadership goes beyond conventional roles, requiring a deep understanding of academic dynamics and the unique challenges faced by researchers and educators (Makhamrah, 2020). Sustainable professional development of academic leaders is critical for enhancing their cognitive, behavioral, and creative skills, thus positively impacting university education (Al-Ajami, 2012). It is emphasized in university reforms as essential for adapting to management changes, technological advancements, and evolving educational paradigms (Abdul Tawwab et al., 2019).

Sustainable professional development is purposeful and intentional, planned to meet the needs of employees, educational institutions, and the community. It covers psychological, cognitive, skill-related, and educational aspects, serving academic leaders, universities, and communities. It is ongoing throughout their careers, ensuring they fulfill their responsibilities effectively, requiring motivation, capability, and a commitment to growth. It involves community interaction, evolving continuously in response to emerging knowledge and contemporary trends (Al-Suwaifi, 2022). The preceding discussion underscores the importance of sustainable development and its requirements as an enhancement in the domain of academic leadership. Therefore, the

---

[1] Department of Educational Leadership, College of Education and Human Development, University of Bisha, Bisha 61922, Saudi Arabia, E-mail: falamri@ub.edu.sa

[2] Department of Foundations of Education, College of Education and Human Development, University of Bisha, Bisha 61922, Saudi Arabia. E-mail: aalareqi@ub.edu.sa

[3] Department of Educational Leadership, College of Education and Human Development, University of Bisha, Bisha 61922, Saudi Arabia, E-mail: ralrashidi@ub.edu.sa

research team conceived this study to propose a conceptual framework for enhancing sustainable professional development at the University of Bisha. This study aims to address these critical needs in academic leadership.

Research Problem

Enhancing academic leaders' sustainable professional development is crucial for universities to maintain a competitive edge in the evolving educational landscape (Al-Mutairi, 2019). This necessity is highlighted by increasing demands to improve Saudi university leaders' professional performance, aligning with institutional goals and quality standards (Recommendations of the Saudi Universities Role in Activating 2030 Vision Conference at Qassim University). Studies by Al-Ghamdi (Al-Ghamdi, 2012), Younis (Younis, 2014), and Al-Mutairi (Al-Mutairi, 2019) emphasize the need for dedicated professional development efforts and enhancement of training programs at Saudi universities. Yusuf (Yusuf, 2016) and Bahhah (Bahhah, 2023) highlight deficiencies in existing programs and the low development reality for female leaders in Saudi universities. These insights underscore the need for innovative and tailored professional development initiatives for academic leaders.

A pilot study involving 30 academic leaders at the University of Bisha identified key areas for development in university leadership, social responsibility, scientific research, and teaching. Based on these findings, the main research question was formulated: "What is the reality of sustainable professional development among academic leaders at the University of Bisha from their perspective?" This main question branched into specific sub-questions:

What is the current reality of sustainable professional development among academic leaders at the University of Bisha in domains such as university leadership and management, community responsibility, scientific research, and university teaching?

Are there statistically significant differences (at $a \leq 0.05$) in the perceptions of academic leaders at the University of Bisha regarding sustainable professional development across domains, based on factors like gender, years of experience, and type of college?

Objectives of the Study

This study aims to:

Identify the reality of academic leaders' sustainable professional development at the University of Bisha.

Determine whether there are statistically significant differences (at a significance level of $a \leq 0.05$) in the mean responses regarding the reality of academic leaders' sustainable professional development attributable to factors such as gender, type of college, and years of experience.

Significance of the Study

Theoretical Significance

This study addresses the crucial issue of academic leaders' sustainable professional development, essential for enhancing the university's academic reputation and stakeholder satisfaction. It aligns with Saudi Arabia's goal under Vision 2030 to have several universities ranked among the top 200 globally, emphasizing the role of sustainable development in achieving global competitiveness. The study supports the need for academically and professionally advanced leadership in Saudi universities, vital for national and international competitiveness.

Practical Significance

This study provides a standardized questionnaire to assess the reality of sustainable professional development among academic leaders. Findings will identify strengths and weaknesses in university leadership and management, community responsibility, scientific research, and university teaching at the University of Bisha, aiding decision-makers in enhancing support and maintaining excellence. The study's literature can serve as a reference for researchers focusing on sustainable professional development in higher education.

Study Limitations

Objective Limitations: The study is focused on assessing the reality of academic leaders' sustainable professional development at the University of Bisha across specific domains.

Human Limitations: Participants include academic leaders such as University President, Vice Presidents, Deans, Vice Deans, and Department Chairs at the University of Bisha.

Spatial Limitations: The study is conducted exclusively at the University of Bisha.

Temporal Limitations: Data collection occurred during the first semester of the academic year 20232024.

Study Terminology

Sustainable Professional Development: Atris et al. (Atris et al., 2019) define sustainable professional development as a continuous, planned, and purposeful process aimed at equipping university academic leaders with cognitive and behavioral knowledge and skills necessary for their roles. It involves modern and advanced training methods to adapt to technological and cognitive developments, contributing to university progress, innovation, and excellence.

THEORETICAL FRAMEWORK

Academic Leaders' Sustainable Professional Development

Sustainable professional development for academic leaders is defined as "a continuous, comprehensive, longterm process that provides opportunities and liberty for reflective development, enabling effective performance in current and future roles" (Al-Ghamdi, 2023). It emphasizes continuous improvement and intentional development of skills and attitudes essential for academic leaders to achieve sustainable outcomes in educational institutions. Al-Ghamdi (Al-Ghamdi, 2023) emphasizes the importance of sustainable professional development for academic leaders, highlighting its role in fostering sustainable development within educational institutions. Al-Issa (Al-Issa, 2023) adds that it involves organized, planned training initiatives aimed at utilizing resources effectively to promote continuous professional growth and enhance professional practices.

The process of sustainable professional development for academic leaders aims to equip them with the skills and capabilities necessary to fulfill various roles and achieve the diverse goals of universities. It involves ongoing learning and adaptation to ensure academic leaders can effectively address challenges and contribute to the long-term sustainability of their institutions.

Importance of Sustainable Professional Development for Academic Leaders

Al-Qubaisi and Sharif (Al Qubaisi & Shareef, 2020) emphasize that sustainable professional development for academic leaders aligns with the 2030 Vision, fostering leadership, administrative, academic, social, and cultural skills through targeted programs. This development is crucial for universities to become sustainable entities capable of addressing challenges like climate change and global competition. Achieving sustainable development among academic leaders is crucial for transforming universities to meet future challenges. This involves tailored training programs, institutional support, and active engagement in economic, social, and environmental objectives (Haddad, 2004). Key objectives include:

Enhancing cognitive and practical skills relevant to their field.

Fostering creative thinking to adapt and innovate.

Deepening commitment to professional ethics.

Updating knowledge and skills in their field.

Promoting continuous learning and self-improvement.

Contributing to advanced learning communities serving society.

This demonstrates that sustainable professional development for academic leaders aims to comprehensively develop their skills and capabilities, enabling them to fulfill their assigned tasks across various domains. Ali (Ali, 2022) identifies several factors influencing academic leaders' sustainable professional development, as follows:

Individual factors: Abilities, skills, values, and personal attitudes of academic leaders, including leadership (e.g., managing resources, decision-making), administrative (e.g., planning, organizing), academic (e.g., teaching, research), and social/cultural skills (e.g., communication, cultural understanding). Values supporting development include those related to social justice, equality, environment, and economic development.

Organizational factors: Includes institutional culture and support for academic leaders. Institutions play a crucial role by providing targeted programs in leadership, administration, academics, social, and cultural skills, enhancing sustainable development.

Environmental factors: Political, economic, social, and cultural conditions surrounding institutions. Favorable conditions encourage academic leaders' participation in supportive activities and programs.

The points above emphasize the essential nature of sustainable professional development for academic leaders, influenced by individual, organizational, and environmental factors. Participation in activities and programs that enhance sustainable development is crucial.

Several mechanisms can promote academic leaders' sustainable professional development, including specialized training programs focusing on leadership, management, academic, social, and cultural skills. Professional guidance and support help academic leaders identify goals and develop plans. Participation in activities like seminars and research projects, along with self-learning, further enhances their development (Al-Mutairi, 2019). Achieving academic leaders' sustainable professional development involves specialized training programs, professional guidance, participation in activities, and self-learning. These tools contribute significantly to the university's development. However, obstacles may hinder sustainable professional development, including heavy workloads, time constraints, and varying levels of interest in self-learning among academic leaders. Some may focus solely on certification, overlooking broader program benefits. Additionally, training material may sometimes lack comprehensive content (Al-Etribi, 2019).

REVIEW OF LITERATURE

The research team conducted an extensive review of relevant studies, as follows: Bahhah (Bahhah, 2023) investigated sustainable professional development among women leaders in Saudi universities, focusing on behavioral-technical administrative practices and simulation training methods. The study surveyed 230 women in administrative roles at universities like King Abdulaziz and Imam Abdul Rahman bin Faisal University. Findings highlighted moderate scores across sustainability domains, suggesting areas for enhancement in simulation training methods' effectiveness. Ali (Ali, 2022) conducted a study at Al-Azhar University to evaluate academic leaders' sustainable leadership performance. Using questionnaires, the study assessed their engagement in sustainable practices. Findings indicated strengths in resource sustainability but weaknesses in social responsibility and fostering sustainable learning environments. Variations across academic colleges underscored the need for context-specific interventions. Almutairi (Al-Mutairi, 2019) examined the intellectual foundations of professional development for academic leaders, emphasizing the predominant methods employed in Saudi universities. The study's descriptive findings underscored the reliance on training courses and workshops within the framework of quality and development deanships, contrasting with diverse international practices that encompass leadership research centers, academic conferences, and collaborations with global professional associations.

Atris et al. (Atris et al., 2019) proposed a conceptual framework for activating sustainable professional development among university leaders in Egypt, drawing insights from successful Australian models. Their study presented strategies for overcoming implementation challenges and highlighted the critical role of sustainable development in enhancing leadership effectiveness and institutional performance. Al-Bayy (Al-Bayy, 2019) investigated the role of sustainable professional development in enhancing educational quality within university education colleges. The study elucidated the concept's goals, quality standards, and its pivotal role in improving educational outcomes, underscoring its imperative amidst rapid technological advancements and

evolving educational paradigms. Al-Wahsh (Al-Wahsh, 2015) surveyed faculty members at the University of Bisha to identify their perspectives on sustainable professional development needs across multiple domains, including curriculum design, teaching strategies, research skills, academic-community partnerships, evaluation techniques, and university leadership. The study revealed distinct gender-based and experiential disparities in developmental needs, emphasizing the importance of targeted professional growth initiatives tailored to diverse faculty cohorts. Cook (Cook, 2014) explored the collaborative efforts between the Chinese Ministry of Education and the University of Michigan in advancing leadership training for Chinese university administrators. The study highlighted the transformative impact of international partnerships on leadership development, fostering a culture of continuous professional growth and institutional advancement.

The Areas of Convergence Between Previous Studies and the Current Study

The current study aligns with previous studies in addressing sustainable professional development and the important role that academic leaders can play in enhancing the sustainable professional development for their academic, research, leadership, academic, and community work, as well as achieving various benefits for leaders.

In addition, the current study aligns with previous studies in its methodology, which is descriptive, and its tool, which is the questionnaire. Furthermore, the current study agrees with some previous studies regarding its sample of academic leaders.

The Areas of Divergence Between Previous Studies and the Current Study

The current study diverges from previous research in several aspects. Unlike studies focusing solely on teachers, faculty members, or women leaders, this study includes both genders. Methodologically, it employs a mixed approach combining questionnaires and interviews to capture a broad spectrum of opinions from participants. Objectives also distinguish this study; while some prior research aimed to identify sustainable professional development requirements or develop leadership practices, this study uniquely aimed to uncover intellectual foundations. Its mixed approach aimed for deeper, comprehensive insights.

The Uniqueness of the Current Study

The current study is unique in its applied aspect, for there are no local research or studies, to the researcher's knowledge, that have attempted to identify the reality of academic leaders' practice of sustainable professional development, using the mixed approach and combining the tools of questionnaire and interview.

Benefits from Previous Studies

The current study aims to build upon prior research, particularly emphasizing sustainable professional development. Previous studies, whether in Arabic or other languages, enrich this study in several ways:

Guiding the determination of study goals.

Identifying theoretical insights on academic leaders' sustainable professional development, its significance, and its impact on professional growth.

Providing direction in constructing, preparing, and adapting the study tools.

Recommending appropriate statistical methods for addressing study variables.

Offering a comprehensive understanding of the study's subject and problem.

Informing the methodology, data processing, interpretation, and analysis approaches.

Using previous study findings to discuss and compare results with the current research.

STUDY METHODOLOGY

The study used the descriptive approach in order to identify the reality of academic leaders' sustainable professional development.

Study Population

The study population consisted of all academic leaders at the University of Bisha, who numbered (179) according to the statistics of the Human Resources Department and the new university structure at the University of Bisha for the academic year 2023-2024.

Study Sample

As for the questionnaire, the study sample consisted of (110) male and female leaders. In terms of the study variables, the distribution of the study sample members was as follows:

Regarding the interview, 10 academic leaders from the University of Bisha participated. The research team intentionally selected leaders based on their diverse experiences gained at the university to explore sustainable professional development realities. Participants were deliberately chosen from various academic backgrounds, including both genders, different experience levels (1-5 years, 6-10 years, over 10 years), and different college types (humanities and scientific colleges). The distribution across study variables was as follows:

The research team also used an expressive code for each participant in the interview, which included (gender, number of years of experience, type of college, participant number), and they were interviewed in a personal manner. The following table shows the data of the study participants:

Table 1. Distribution of study sample members in terms of its variables with reference to the questionnaire.

Variable	Type of variable	Number	Percentage
Gender	Male Female	80 30	73% 27%
Years of experience	1-5 years 6-10 years	33 47	30% 42.7%
	More than 10 years	30	27.3%
Type of college	Humanities Scientific	35 75	31.8% 68.2%

Table 2. Distribution of the study sample in terms of the variables of the study with reference to the interview.

Variable	Type of variable	Number	Percentage
Gender	Male Female	5 5	50% 50%
Years of experience	1-5 years 6-10 years	4 4	40% 40%
	More than 10 years	2	20%
Type of college	Humanities Scientific	3 7	30% 70%

STUDY TOOLS

First: The Questionnaire

The questionnaire in this study assessed the status of academic leaders' sustainable professional development at the University of Bisha, informed by previous studies (Bahhah, 2023; Al-Wahsh, 2015). It comprised two parts: First, gathering demographic data on gender, college type (scientific vs. humanities), and years of experience (1-5, 6-10, over 10 years). Second, measuring four domains: academic teaching, scientific research, environmental social responsibility, and university leadership and management.

The questionnaire's statements were formulated based on the theoretical framework and tools from previous studies. Each domain initially contained 10 statements graded on a five-point scale: Very High, High, Medium, Low, and Very Low. Instructions for the questionnaire emphasized clarity and purpose, ensuring accurate data collection on study variables.

The Validity of the Questionnaire

To ensure the validity of the questionnaire and that it measures what it was prepared to measure, this was verified in three ways: the validity of the reviewers, the validity of structure, and the validity of the internal consistency of the statements, as follows:

Apparent Validity (Validity of Reviewers)

The questionnaire was initially reviewed by 10 educational leadership experts. Along with the questionnaire, a cover letter outlining the study's objectives and review criteria was sent to the reviewers. They evaluated the questionnaire for statement clarity, linguistic structure, relevance to the field, appropriateness of content, and overall adequacy. Based on the reviewers' feedback, several modifications were implemented, including revising statement wording and removing irrelevant statements. After these adjustments, the questionnaire was finalized for use with the main study sample.

Structural Validity of the Questionnaire

Following validity checks, the researcher administered the questionnaire to a pilot sample of 20 academic leaders. Responses were coded and analyzed using SPSS. Pearson Correlation Coefficients ranged from 0.97 to 0.76, indicating strong correlations among statement scores, domain scores, and the overall questionnaire score. These results confirm the questionnaire's suitability for the main study sample.

Reliability of the Questionnaire

Cronbach's Alpha coefficients were computed after administering the questionnaire to a pilot sample of 20 academic leaders at the University of Bisha, yielding values of 0.80, 0.93, 0.89, and 0.85 for the four domains respectively. The overall reliability coefficient for the entire questionnaire was 0.86, indicating its reliability for the main study sample.

Table 3. Data of study participants.

No.	Gender	code	Experience	code	Scientific	code	College
1	Male	M	1-5	E1	Scientific	S	ME1S1
2	Male	M	1-5	E1	Scientific	S	ME1S2
3	Female	F	1-5	E1	Scientific	S	FE1S1
4	Female	F	1-5	E1	Humanities	H	FE1H1
5	Male	M	6-10	E2	Scientific	S	ME2S1
6	Male	M	6-10	E2	Humanities	H	ME2H1
7	Female	F	6-10	E2	Scientific	S	FE2S1
8	Female	F	6-10	E2	Scientific	S	FE2H1
9	Female	F	More than 10	E3	Scientific	S	FE3S1
10	Male	M	More than 10	E3	Humanities	H	ME3H1

Second: the Interview

A semi-structured interview method was employed in this study, designed to facilitate individualized responses through open-ended questions with specific content. This approach fosters an interactive dialogue between the researcher and the participants (Abu Allam, 2004). The interview questions were developed with the following objectives:

Purpose of the Interview

The purpose of the interview was to gather insights from participants regarding their perspectives on sustainable professional development. Specifically, the interview aimed to solicit suggestions for enhancing sustainable development among academic leaders at the University of Bisha in the areas of academic teaching, scientific research, environmental social responsibility, and university leadership.

Formulating the Interview Questions

Interview questions were developed based on the study objectives, drawing from existing literature and the research team's expertise. Each question consisted of a main query followed by five sub-questions to comprehensively cover all aspects of the topic.

Validity

To validate the interview questions, three academic leaders from the University of Bisha, who were not part of the main sample, were interviewed. Their feedback ensured clarity and confirmed that the questions were easily understood. Responses from the main sample were recorded, transcribed, and prepared for subsequent analysis.

Reliability

The recordings obtained from the sample members were reviewed more than once to ensure that there were no errors in recording their responses.

STUDY RESULTS, DISCUSSION, AND INTERPRETATION

First: Regarding the Questionnaire

Results Related to the First Question

The first question of the study stated: "What is the reality of sustainable professional development among academic leaders at the University of Bisha in the fields of (academic teaching, scientific research, environmental social responsibility, and university leadership)?"

To answer this question, the arithmetic means, standard deviations, rank, and degree were calculated for each of the statements in the various domains. Using them, the mean for the domain as a whole, the standard deviation for the domain as a whole, and the degree of agreement to the domain as a whole were calculated. The results were as in the following table:

Table (4) presents the results for the domain of academic teaching among academic leaders at the University of Bisha. The overall arithmetic mean was (4.2) with a standard deviation of (0.84), indicating a high score and suggesting that sustainable professional development in academic teaching is perceived positively. Notably, several statements received very high scores.

Statement No. (7), "I use technology and e-learning in teaching processes," received the highest score with an arithmetic mean of (4.6) and a standard deviation of (0.72). This indicates extensive use of technology and e-learning platforms like the Blackboard system, enhancing students' skills and enabling self-evaluation.

Table 4. Arithmetic means, standard deviations, rank, and score for the domain of academic teaching.
(Arranged in descending order according to their arithmetic means)

No.	Statement	Arithmetic mean	Standard deviation	Rank	Score
7	I use technology and e-learning in teaching processes.	4.6	0.72	1	Very High
6	I have the awareness to make permanent reforms in the educational process instead of temporary achievements.	4.4	0.78	2	Very High
5	I contribute to motivating students for sustainable learning.	4.3	0.84	3	Very High
8	I use new, modern methods to evaluate students.	4.2	0.92	4	High
3	I use the best appropriate modern strategies in teaching.	4.1	0.92	5	High
2	I provide periodic feedback on courses.	4.00	0.84	6	High
4	I seek to involve students in developing courses to meet the needs of sustainable development.	3.9	0.90	7	High
1	I seek to integrate sustainability concepts into academic programs.	3.8	0.83	8	High
	Domain overall score	4.2	0.84	----	High

Statement No. (6), "I have the awareness to make permanent reforms in the educational process instead of temporary achievements," ranked second with an arithmetic mean of (4.4) and a standard deviation of (0.78). This reflects academic leaders' commitment to sustainable educational reforms aligned with international best practices.

Statement No. (4), "I seek to involve students in developing courses to meet the needs of sustainable development," ranked seventh with an arithmetic mean of (3.9) and a standard deviation of (0.90). This underscores the university's future-oriented approach to involve students in curriculum development for sustainable education.

Statement No. (1), "I seek to integrate sustainability concepts into academic programs," ranked eighth with an arithmetic mean of (3.8) and a standard deviation of (0.83). This suggests ongoing efforts to integrate sustainability across all academic programs, aiming to reach students from diverse educational backgrounds.

Table 5. Arithmetic means, standard deviations, rank, and score for the domain of scientific research.
(Arranged in descending order according to their arithmetic means).

No.	Statement	Arithmetic mean	Standard deviation	Rank	Score
2	I follow new innovative research and studies in the field of specialization.	4.00	0.77	1	High
1	I can conduct innovative research that serves sustainable development.	3.9	0.67	2	High
4	I can use international databases.	3.8	0.87	3	High
7	I make sure to attend and participate in scientific conferences.	3.7	0.89	4	High
3	I encourage members to participate in research teams to hone their skills.	3.6	0.87	5	High
5	I make sure to publish research in international scientific journals.	3.5	0.95	6	High
6	I participate in group scientific research projects.	3.4	0.92	7	Medium
8	I contribute to applying the results of relevant scientific research in the concerned entity.	3.2	0.91	8	Medium
	Domain overall score	3.6	0.84	----	High

Table (5) summarizes the findings for the domain of scientific research among academic leaders at the University of Bisha. The overall arithmetic mean was (3.6) with a standard deviation of (0.84), indicating a high score and positive perception of sustainable professional development in scientific research. Most statements received high scores, with two achieving a medium score.

Statement No. (2), "I follow new innovative research and studies in the field of specialization," ranked highest with an arithmetic mean of (4.00) and a standard deviation of (0.77). This reflects academic leaders' commitment to staying updated with innovative research, enhancing their professional development, confidence, and career opportunities.

Statement No. (1), "I can conduct innovative research that serves sustainable development," ranked second with a mean of (3.9) and a standard deviation of (0.67). This highlights academic leaders' capability to conduct impactful research contributing to the university's sustainable development goals.

Statement No. (6), "I participate in group scientific research projects," ranked seventh with a mean of (3.4) and a standard deviation of (0.92), indicating a medium score. This suggests a need to increase academic leaders' participation in such projects, potentially hindered by administrative responsibilities.

Statement No. (8), "I contribute to applying the results of relevant scientific research in the concerned entity," ranked eighth with a mean of (3.2) and a standard deviation of (0.91). This indicates challenges in applying research findings due to various practical and organizational obstacles that need addressing.

Table 6. Arithmetic means, standard deviations, rank, and score for the domain of environmental social. responsibility.
(Arranged in descending order according to their arithmetic means).

No.	Statement	Arithmetic mean	Standard deviation	Rank	Score
1	I contribute through community awareness to developing environmental resources and preserving them for future generations.	4.4	0.83	1	Very High
2	I seek to raise awareness about the culture of environmental social responsibility.	4.3	0.79	2	Very High
5	I make sure to link scientific research to societal issues.	4.1	0.92	3	High
8	I guide students to properly deal with natural resources and rationalize their consumption.	4.00	0.77	4	High

No.	Statement	Arithmetic mean	Standard deviation	Rank	Score
7	I encourage students to address societal research issues related to sustainable development.	3.9	0.84	5	High
9	I participate in social activities aimed at making the community a green environment.	3.8	0.94	6	High
6	I take the initiative to provide scientific consultations to local community institutions.	3.6	0.91	7	High
3	I participate in organizing awareness-raising campaigns on environmental societal issues.	3.5	0.91	8	High
4	I am keen to cooperate with international research centers to conduct environmental studies.	3.4	0.90	9	Medium
	Domain overall score	3.9	0.86	----	High

Table (6) presents data on the domain of environmental social responsibility among academic leaders at the University of Bisha. The overall arithmetic mean was (3.9) with a standard deviation of (0.86), indicating a high score and positive perception of sustainable professional development in this domain. Most statements received high scores, with one statement scoring medium.

Statement No. (1), "I contribute through community awareness to developing environmental resources and preserving them for future generations," ranked highest with an arithmetic mean of (4.4) and a standard deviation of (0.83). This highlights academic leaders' commitment to raising community awareness and preserving environmental resources for sustainable development.

Statement No. (2), "I seek to raise awareness about the culture of environmental social responsibility," ranked second with a mean of (4.3) and a standard deviation of (0.79). This underscores the importance of promoting a culture of environmental responsibility through education and innovative technologies.

Statement No. (3), "I participate in organizing awareness-raising campaigns on environmental societal issues," ranked eighth with a mean of (3.5) and a standard deviation of (0.91). This indicates academic leaders' interest in participating in such campaigns to enhance environmental awareness.

Statement No. (4), "I am keen to cooperate with international research centers to conduct environmental studies," ranked ninth with a mean of (3.4) and a standard deviation of (0.90). This suggests moderate interest among academic leaders due to challenges such as time constraints and other responsibilities.

Table 7. Arithmetic means, standard deviations, rank, and score for the domain of university leadership and management. (Arranged in descending order according to their arithmetic means).

No.	Statement	Arithmetic mean	Standard deviation	Rank	Score
9	I take human considerations into account while dealing with others.	4.4	0.79	1	Very High
6	I can manage work teams effectively.	4.3	0.72	2	Very High
8	I have the skill of managing time and using it well.	4.3	0.77	3	Very High
2	I can formulate strategic goals consistent with sustainable development.	4.2	0.71	4	High
1	I have the skill of designing the vision and mission in line with sustainable development.	4.1	0.75	5	High
3	I have sufficient awareness in addressing strategic issues related to sustainable development.	4.00	0.77	6	High
5	I can manage the financial budget of the concerned entity in a manner that takes into account rationalization of spending.	3.9	0.86	7	High
7	I can skillfully build strategic plans.	3.8	0.85	8	High
4	I contribute to making sound decisions about environmental problems.	3.7	0.95	9	High
	Domain overall score	4.07	0.97	----	High

Table (7) presents data on the domain of university leadership and management among academic leaders at the University of Bisha. The overall arithmetic mean was (4.4) with a standard deviation of (0.79), indicating a high score and positive perception of sustainable professional development in this domain. Three statements received very high scores, while the remaining statements had high scores.

Statement No. (9), "I take human considerations into account while dealing with others," ranked highest with an arithmetic mean of (4.4) and a standard deviation of (0.79). This reflects academic leaders' emphasis on considering human factors in their interactions within the university, contributing to a supportive work environment.

Statement No. (6), "I can manage work teams effectively," ranked second with a mean of (4.3) and a standard deviation of (0.72). This highlights the university's progress, driven by effective team management strategies implemented by competent academic leaders.

Statement No. (7), "I can skillfully build strategic plans," ranked eighth with a mean of (3.8) and a standard deviation of (0.85). This underscores the importance of strategic planning skills among academic leaders for long-term organizational success.

Statement No. (4), "I contribute to making sound decisions about environmental problems," ranked ninth with a mean of (3.7) and a standard deviation of (0.95). This indicates a need for further cooperation among academic leaders in addressing environmental challenges through informed decision-making processes.

Table 8. Ranking of the questionnaire dimensions.

No.	Statement	Arithmetic mean	Standard deviation	Rank	Score
1	Academic teaching	4.2	0.84	----	High
4	University leadership and management	4.07	0.97	----	High
3	Environmental social responsibility	3.9	0.86	----	High
2	Scientific research	3.6	0.84	----	High
	The overall questionnaire score	3.94	0.87	----	High

Table (8) summarizes the domains of sustainable professional development among academic leaders at the University of Bisha:

Academic Teaching: Ranked first with a mean score of (4.2) and a standard deviation of (0.84). This domain reflects the primary focus of academic leaders on teaching practices, essential to their roles before assuming leadership positions.

University Leadership and Management: Ranked second with a mean score of (4.07) and a standard deviation of (0.97). This highlights the active engagement of academic leaders in leadership roles, enhancing the university's workplace environment.

Environmental Social Responsibility: Ranked third with a mean score of (3.9) and a standard deviation of (0.86). Academic leaders demonstrate a high level of commitment to social responsibilities, contributing to environmental preservation.

Scientific Research: Ranked fourth with a mean score of (3.6) and a standard deviation of (0.84). Despite the demands of leadership roles, academic leaders maintain significant involvement in scientific research, emphasizing its importance in university roles.

Comparison with Previous Studies: - Bahhah (2023) found medium scores across all domains of sustainable professional development for women leaders in Saudi universities, contrasting with the high scores observed at the University of Bisha. - Ali (2022) concluded that academic leaders' practice of sustainable leadership dimensions was medium, indicating variability in practices across different institutions and contexts.

Results Related to the Second Question

The second question of the study was: "Are there statistically significant differences at the level of significance ($a \leq 0.05$) between the mean scores of the responses of the study sample members regarding the reality of sustainable professional development for academic leaders at the University of Bisha from their point of view in the domains of (academic teaching, scientific research, environmental social responsibility, university leadership) attributable to the variables of (gender - number of years of experience - type of college)?" To answer this question, the following was done:

Regarding the Gender Variable

To reveal the statistical significance of the differences between the mean scores of the study sample members about the reality of sustainable professional development for academic leaders at the University of Bisha in terms of the variable of gender, the Independent Samples T Test was applied, and its results were as shown in the following table (* significant at a significance level of 0.05):

Table 9. The Independent Samples T Test T-test for determining the differences between the means of the responses of the study sample (in terms of the gender variable).

No.	Domain	Gender	Number	Arithmetic mean	Standard deviation	T. value	Probability value	Significance level
1	Academic teaching	Male	80	33.4	4.7	1.9	0.05	Insignificant
		Female	30	33.1	5.9			
2	Scientific research	Male	80	30.8	5.6	3.07	0.003*	Significant
		Female	30	27.1	6.1			
3	Environmental social responsibility	Male	80	40.0	7.0	1.05	0.29	Insignificant
		Female	30	38.5	5.2			
4	University leadership and management	Male	80	37.0	5.7	0.9	0.36	Insignificant
		Female	30	36.0	4.3			
	Overall questionnaire score	Male	80	141.4	18.6	2.1	0.04*	Significant
		Female	30	132.9	18.7			

The results in Table (9) indicate that there are no statistically significant differences between the means of the responses of male and female study sample members at the significance level of 0.05 for the first domain (academic teaching), the third domain (environmental social responsibility), and the fourth domain (university leadership and management).

However, statistically significant differences ($p < 0.05$) were found between male and female study sample members for the second domain (scientific research) and for the questionnaire as a whole. In both cases, males scored higher on average. This suggests that the gender variable has a statistically significant effect on the responses of the study sample in these dimensions and across the entire questionnaire.

The Variable of the Number of Years of Experience

To reveal the statistical significance of the differences between the mean scores of the study sample members about the reality of sustainable professional development for academic leaders at the University of Bisha in terms of the variable of number of years of experience, a one-way ANOVA was applied, and its results were as shown in the following table:

The results in Table (10) indicate that there are no statistically significant differences at the 0.05 level between the means of the responses of the study sample members regarding the reality of academic leaders' sustainable professional development at the University of Bisha based on the variable of number of years of experience. The *V* values were (1.3, 0.01, 0.99, 0.40) for each domain separately and for the overall questionnaire, with corresponding significance level values of (0.27, 0.98, 0.37, 0.66), all greater than 0.05.

This lack of statistical significance suggests that the variable of number of years of experience does not affect the responses of study sample members across different domains of the questionnaire. The homogeneity of the study sample, comprising academic leaders at the University of Bisha who work under similar conditions, likely contributes to the agreement in their perceptions of sustainable professional development.

Table 10. One-way analysis of variance test for the responses of the study sample members (in terms of the variable of the number of years of experience).

No.	Domain	Expert. Year	Arithmetic mean	Standard deviation	T. value	Probability value	Significance level
1	Academic teaching	1-5	33.5	4.4	1.3	0.27	Insignificant
		6-10	33.1	4.8			
		More than 10	31.5	6.1			
2	Scientific research	1-5	29.7	5.9	0.01	0.98	Insignificant
		6-10	29.8	5.9			
		More than 10	30.00	6.2			

3	Environmental social responsibility	1-5	38.6	6.7			Insignificant
		6-10	39.5	6.6	0.99	0.37	
		More than 10	40.9	6.3			
4	University leadership and management	1-5	37.1	6.4			Insignificant
		6-10	37.00	5.6	0.40	0.66	
		More than 10	36.00	3.3			
	The questionnaire as a whole	1-5	139.00	17.9			Insignificant
		6-10	139.4	18.3	0.01	0.98	
		More than 10	138.6	21.5			

The Variable of the College Type

To reveal the statistical significance of the differences between the mean scores of the study sample members about the reality of sustainable professional development for academic leaders at the University of Bisha in terms of the variable of the type of college, the Independent Samples T Test was applied, and its results were as shown in the following table:

Table 11. The Independent Samples T Test T-test for determining the differences between the means of the responses of the study sample members (in terms of the variable of the type of college).

No.	Domain	Type	Number	Arithmetic mean	Standard deviation	T. value	Probability value	Significance level
1	Academic teaching	Humanities	35 75	32.2	5.4	0.82	0.41	Statistically insignificant
		Scientific		33.00	4.9			
2	Scientific research	Humanities	35 75	29.00	6.2	0.99	0.32	Statistically insignificant
		Scientific		30.2	5.8			
3	Environmental social responsibility	Humanities	35 75	39.8	6.8	0.26	0.79	Statistically insignificant
		Scientific		39.5	6.4			
4	University leadership and management	Humanities	35 75	37.2	5.6	0.61	0.53	Statistically insignificant
		Scientific		36.5	5.2			
	The overall questionnaire score	Scientific	35	138.4	20.1	0.26	0.79	Statistically insignificant
		Humanities	75	139.4	18.5			

The results in Table (11) indicate that there are no statistically significant differences at the 0.05 level between the average responses of members of the study sample of academic leaders working in humanities and scientific colleges across different domains (academic teaching, scientific research, environmental social responsibility, university leadership and management), as well as for the questionnaire as a whole. The *t* values were (0.82, 0.99, 0.26, 0.61, 0.26) respectively, with corresponding significance level values of (0.41, 0.32, 0.79, 0.53, 0.79).

These findings suggest that the variable of college type (humanities vs. scientific) does not have a statistically significant effect on the study sample's responses regarding sustainable professional development. The homogeneity among academic leaders at the University of Bisha, who work under similar conditions, likely contributes to the consistency in their perceptions across different domains.

Second: The Results of the Interview

First sub-question:

> **"Tell me about your concept of academic leaders' sustainable professional development at the University of Bisha."**

Participants described it as "a continuous process to raise performance" (FE2H2; FE3S1); "responding to management dynamics to achieve university goals" (FE1S1; ME2H1); "providing skills for improved university work" (ME1S1; ME2S1); "adapting to duty-related changes" (FE2S1; ME1S1); "enhancing efficiency in changing university environments" (FE1H1; ME3H1).

Second sub-question:

> **"In your opinion, what proposals can contribute to academic leaders' sustainable professional development in academic teaching at the University of Bisha?"**

Suggestions included "recording lectures via Blackboard" (FE1S1; ME3H1); "opening discussion panels on Blackboard" (ME1S1; FE3S1); "involving students in course elements selection" (ME1S2; FE2H2); "providing immediate student feedback" (FE1H1; ME2H1); "enhancing direct communication with students" (ME2S1; FE2S1).

Third sub-question:

"What proposals can contribute to academic leaders' sustainable professional development in scientific research at the University of Bisha?"

Ideas included "following international journals" (FE3S1; ME3H1); "publishing in top journals" (FE2H1; FE2S1); "collaborating in research teams" (ME1S1; FE1H1); "attending scientific conferences" (ME1S2; FE1S1); "using AI in research" (ME1S1; FE2S1); "implementing research findings" (ME3H1; ME1S1).

Fourth sub-question:

"What proposals can contribute to academic leaders' sustainable professional development in environmental social responsibility at the University of Bisha?"

Suggestions included "environmental responsibility training courses" (FE2S1; ME1S2); "motivating societal activities participation" (ME2H1; ME2S1); "promoting environmental awareness" (ME1S1; FE1S1); "collaborating with research centers" (FE1H1; ME3H1); "engaging graduate students" (FE1H2; FE3S1; ME2H1); "consulting local institutions" (FE2S1; FE1H1; ME1S1).

Fifth sub-question:

"What proposals can contribute to academic leaders' sustainable professional development in university leadership and management at the University of Bisha?"

Responses included "uploading regulations on the university website" (FE1S1; ME2H1); "updating university and department websites" (FE2S1; ME1S2; FE1H1); "addressing employee issues seriously" (ME2S1; FE1H1; FE1S1); "strategic planning training" (ME3H1; ME1S1; FE1H1); "team management training" (ME2S1; FE3S1; FE1H1); "time management training" (ME2H1; FE3S1; ME1S1).

CONCLUSION

This study provided a comprehensive assessment of sustainable professional development among academic leaders at the University of Bisha, highlighting their strengths across various domains. The findings revealed consistently high scores in academic teaching, university leadership and management, environmental social responsibility, and scientific research, indicating a solid foundation in these critical areas. Despite these achievements, there existed opportunities for further enhancement through targeted interventions and strategic initiatives aimed at continuous improvement. By focusing on these areas, the university could strengthen its academic leadership capabilities and enhance its contributions to educational and societal goals. The research employed a robust methodology, combining questionnaires and interviews to gather insights from 179 academic leaders. Quantitative data provided a clear overview of current perceptions and scores across professional development domains, while qualitative interviews enriched the findings with nuanced perspectives and specific recommendations. This mixed-method approach ensured a comprehensive understanding of sustainable professional development among academic leaders at the University of Bisha. Building on these findings, recommendations were made to develop targeted strategies aimed at elevating scores in academic teaching, scientific research, environmental social responsibility, and university leadership and management domains. Recommendations drawn from interview insights addressed identified areas for improvement. Future research was proposed to explore faculty members' training needs within sustainable development standards, examine academic leaders' roles in domain-specific self-development, and evaluate the effectiveness of current training programs. Additionally, investigating the university's broader role in promoting sustainable professional development and integrating green leadership principles was identified as critical for further research and practice. These endeavors promised to enhance academic leadership effectiveness and institutional impact at University of Bisha and similar institutions, fostering a culture of continuous improvement and innovation.

ACKNOWLEDGMENT

REFERENCES

Abdul Tawwab, A. T. A. I., Hassan, H. S. M., & Abdul Jaleel, R. R. (2019). Professional development requirements for university teaching staff in light of the knowledge society: A field study. *Journal of the Faculty of Education*, *35*, 1–49.

Abu Allam, R. M. (2004). *Research Methods in Psychological and Educational Sciences*. Amman: Dar Al Masirah for Publishing, Distribution and Printing.

Al-Ajami, N. A.-A. (2012). The training needs of female faculty members at imam muhammad bin saud islamic university from their point of view. *Journal of Educational Sciences*, *39*, 17–32.

Al-Bayy, M. K. M. (2019). The role of sustainable professional development for university faculty members in achieving the quality of the educational process in faculties of education. *The First Scientific Conference of the Faculty of Education, University of Sirte on "Foreseeing the future of faculties of education in Libyan universities in light of contemporary global trends"*, *2*, 686–708.

Al-Etribi, H. M. M. (2019). Faculty members' professional development as an approach to achieving competitive advantage in egyptian universities. *The Fourteenth Annual Arab Conference/ Eleventh International Conference on "Specific Education and Developing Competitive and Informatic Capabilities for Scientific Research in Egypt and the Arab World - Future Visions"*, *2*, 681–727.

Al-Ghamdi, H. (2023). *Academic leaders' sustainable development in light of the Kingdom of Saudi Arabia's 2030 Vision*. Master's thesis. Unpublished master's thesis.

Al-Ghamdi, U. S. (2012). *Faculty members' professional development in colleges of education in Saudi universities in light of the standards of the American National Council for Accreditation of Teacher Education: A proposed vision*. Ph.D. thesis. Unpublished doctoral dissertation.

Al-Issa, A. b. M. b. A. (2023). Teachers' sustainable development in some western countries and how to benefit from it in developing the performance of saudi school teachers: A proposed vision. *Journal of Research in Education and Psychology*, *38*, 151–206.

Al-Mutairi, K. M. (2019). Academic leaders' professional development in saudi universities in light of some contemporary global trends. *Journal of Education*, *3*, 547–583.

Al Qubaisi, A. A. S., & Shareef, S. M. M. (2020). A proposed plan to develop school leaders professionally in light of the kingdom of saudi arabia's 2030 vision. *Educational Journal*, *71*, 753–793.

Al-Shareefi, A. A. M., Al-Sarayrah, K. A. S., & Al-Nazer, M. S. I. (2021). The degree to which academic department heads practice the ethical decision-making process from the point of view of faculty members at the middle east university in amman. *Journal of Educational Sciences*, *20*, 117–147.

Al-Suwaifi, W. S. (2022). *Developing education, a forward-looking vision: Models of professional development for diverse environments*. Cairo: Arab Press Agency for Publishing and Distribution.

Al-Wahsh, H. M. (2015). Sustainable professional development requirements for faculty members and their assistants at the university of bisha from their point of view. *Journal of Scientific Research in Education*, *4*, 537–572.

Al-Zaydi, D. A. b. A. A., & Al-Shareef, H. A. (2023). The degree to which academic leaders practice the dimensions of competitive intelligence and its relationship to the decision-making process at taibah university. *Journal of Studies in University Education*, *58*, 11–53.

Ali, M. M. H. (2022). Developing the performance of academic leaders at al-azhar university in light of the dimensions of sustainable leadership. *Journal of the Faculty of Education*, *19*, 362–446.

Atris, M., Elwan, S., & Tantawi, A. (2019). A proposed vision for sustainable professional development for university leaders in egypt in light of the australian experience. *Benha University Journal of the Faculty of Education*, *3*, 395–452.

Bahhah, R. F. (2023). Sustainable professional development for women leaders in Saudi universities, using the simulation training method: A proposed strategy. Ph.D. thesis Faculty of Education, Umm Al Qura University.

Cook, C. E. (2014). Professional development for chinese university leaders: Collaboration, not competition. In *Survival of the Fittest* (pp. 121–132).

Haddad, M. B. (2004). *Professional development for university faculty members: A comparative study*. Cairo: Aalam Al-Kutub.

Makhamrah, A. M. (2020). *The degree to which academic and administrative leaders at Al al-Bayt University practice agile leadership*. Master's thesis College of Educational Sciences, Al al-Bayt University. Unpublished master's thesis.

Najmi, F. b. A. Y. (2022). Wisdom-based thinking among academic leaders at najran university. *Journal of the Islamic University for Educational and Social Sciences*, (pp. 1–45).

Younis, M. M. (2014). The reality of faculty members' professional development at qassim university in light of the quality standards of university education. *Journal of Educational and Psychological Sciences*, *15*, 201–243.

Yusuf, D. T. M. (2016). A proposed vision for developing professional development methods for faculty members in the arab republic of egypt in light of the experience of the united states of america. *Journal of Comparative and International Education*, *2*, 121–210.