

13th International Scientific Conference

BUSINESS AND MANAGEMENT 2023

May 11-12, 2023, Vilnius, Lithuania

ISSN 2029-4441 / eISSN 2029-929X ISBN 978-609-476-333-5 / eISBN 978-609-476-334-2 Article Number: bm.2023.979 https://doi.org/10.3846/bm.2023.979

BUSINESS TECHNOLOGIES AND SUSTAINABLE ENTREPRENEURSHIP

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APPLYING SUSTAINABLE LEADERSHIP FOR ORGANIZATIONAL CHANGES TOWARD SUSTAINABILITY

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Received 3 March 2023; accepted 3 April 2023

Abstract. The ability to lead and effectively manage change is one of the most critical factors in leadership. In today's changes in the economy and social well-being, various leadership styles are being used, which are applied in the context of the processes of today's globalization. Leadership has become a highly significant concept in the twenty-first-century context. The scientific literature presents and analyses various leadership styles but does not sufficiently provide practical tools to identify the possibilities of human potential and ensure sustainable management. To improve the microclimate and interpersonal trust of the institution, the most crucial role is played by leadership style, change management, creativity, and giving feedback. The article formulates tasks: to reveal the transformation of attitudes toward leadership by comparing the factors of different leadership styles that influence the team's focus on achieving the sustainable goals set by the organization. The results of the paper show sustainability could be reached in the organization if the organization's managers apply sustainable leadership practices.

Keywords: sustainable leadership, leadership styles, application, organizational changes.

JEL Classification: M1, M12, M54.

Introduction

Leadership is determined by choosing the right behavior pattern to achieve organizational and employee goals. Considering the current situation of a specific organization and communicating the necessary changes, the best leadership style is chosen, which motivates and empowers employees to achieve the best company results. Leadership styles in the 21st century are very advanced, and practical mentoring tools are increasingly being used to unlock employees' human potential by choosing the right vision and developing followers. Applying sustainable leadership (Hargreaves & Fink, 2004) could improve an organization's competitive advantage and ensure sustainable entrepreneurship. Competitive advantage is also determined by the development of information technology (IT) and the cooperation of virtual teams, implementing organizational goals and the choice of employees to work remotely, attracting talented employees from different national or international regions. A manager's ability to effectively lead and inspire employees to cooperate, highlighting the organization's values and creating a

partnership based on trust, creates the prerequisites for successful leadership (Mirzani, 2023). The study is designed to investigate sustainable leadership. Although the research on sustainable leadership is interesting, there is not enough attention given to the topic by researchers. The review of books on Google books shows that only 3.3 percent of books focusing on leadership research are dedicated to sustainable leadership topics. The authors present in the article the literature review on sustainable management and its application in the organization to reach sustainability. The novelty of research - linking leadership and sustainable management and showing the bridge between sustainable leadership and the application of sustainability in an organization. The paper has several sections. First, it starts with a discussion about leadership and sustainable management. Next, the authors present the scientific literature with leadership style approaches, distinguishing the main factors influencing specific leadership. In the next section, the authors present the leadership style literature related to bibliometric analysis. Finally, the authors present the conclusions. In preparing the article, such research methods were used:

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methods of analysis and synthesis of scientific literature, comparative analysis, bibliometric analysis, and analysis of secondary data.

1. Leadership and sustainable management

Effective knowledge management and human resources require leaders to achieve company goals and constructively apply acquired and helpful knowledge (Fatoki, 2021). The transition of leadership from the industrial age to the knowledge era makes knowledge-based leadership a critical factor (Zahrani, 2022) in organizations meeting open innovation challenges. Business leaders need knowledge management (KM) capabilities (i.e., infrastructure and processes) to foster open innovation. Open innovation is becoming increasingly important as a source of competitive advantage for a company. Open innovation (OI) has become a valuable tool for gaining a competitive advantage and improving organizational performance. Various studies have examined how knowledge-based leadership influences innovation in the OI paradigm (Naqshbandi & Jasimuddin, 2018). An important role is played by the entrepreneurial leadership approach in organizing resource areas to capture value creation effectively. The importance of entrepreneurial leadership extends to open innovation. Research for leaders' traditional social and technical contributions (Faridian, 2023). Due to COVID-19, the inclusion of virtual teamwork and the ability to thrive in a digital environment is very relevant today, with more than 90% of the world living in countries with travel restrictions (Salcedo et al., 2020; Larson et al., 2017). Virtual mobility is an effective way to gain international experience develop international awareness (Faridian, 2023), and develop the necessary skills of an international virtual team, such as leadership, trust, motivation, and communication (Lindner & O' Brian, 2019). Global Virtual Teams (GVTs) are teams that communicate via technology across geographic and national boundaries (Li et al., 2017) that enable organizations to combine knowledge, skills, and abilities to complete a task with dispersed individuals. Christofi et al. (2015) also mention that a sustainable leader is crucial in seeking to implement sustainability in an organization successfully.

2. Leadership style factors

Sustainable performance (SP) has become an obligation of every organization globally, which has captured the attention of recent researchers. Following the green theory, this study examines the impact of corporate social responsibilities (CSR) and transactional and transformational leadership on the SP (Widisatria & Nawangsari, 2021). Transformational leadership is one of the best styles to achieve the goals of a sustainable organization by using best practice tools and empowering followers. This was also confirmed by the research of Piwowar-Sulej and Iqbal (2023), applying Bibliometric research in network analysis, summarizing the relationship between leadership styles and sustainability effectiveness by applying the rigor of systematic literature reviews of articles indexed in the Scopus database. The study findings showed that the most discussed leadership styles were sustainable and transformational. In the Table 1 below, we will examine leadership style factors. And the factors presented in Figure 2 according to leadership styles can be measured by leaders and employees.

Table 1. Leadership style factors

Leadership styles	Factors	Authors
Innovative leadership	Education and mentoring; search for new models; organizational culture, organizational behavior; the creativity of employees; continuous learning; positive reaction to innovations; openness to new opportunities; creating innovations; competitive advantage, effective corporate communication; monitoring of the external environment; trend insights and more.	Tsai (2011); Iqbal et al. (2020, 2021a, 2021b); Gillan et al. (2021); Dai et al. (2021); Demircioglu and Wal (2021)
Trans- forma- tional leadership	The ability to see leaders in their followers; adaptation to change; social values; rational decisions; a new look at old problems; innovative visions; organizational culture; promoting creative thinking; successful conflict resolution; promoting the independence and creativity of employees, etc.	Northouse (2009); Yukl (2012); Navickaitė (2012); Estevão et al. (2019); Žukauskas and Korsakienė (2019); Židonis and Andriuškevičienė (2019); Davidaviciene and Majzoub (2022); Iqbal et al. (2020, 2021a, 2021b, 2022)
Trans- actional leadership	Effective distribution of work and tasks in the team; clear delegation of duties; exchange of employees and the organization; clear rewards for implementing specific tasks; exchanges between the leader and his followers, etc.	Iqbal et al. (2020, 2021a, 2021b, 2022)
Liberal leadership	Long-term operational goals; the leader's responsibility for the final result; motivated employees; highly qualified experts; organizational goals are aligned with employees; Adequate conditions are created for employees, etc.	Khan et al. (2015)

Leadership styles	Factors	Authors
Situational leadership	Adapting to a specific situation; applying leadership styles according to the maturity of employees; applying leadership styles according to employees' competencies; adapting to the changing needs of employees; applying for support according to the needs of employees, etc.	Northouse (2009); Collinson et al. (2011); Yukl (2012), Waite (2013)
Autocratic leadership	Strong leadership dominance, employee discipline, and obedience; a motivating environment is created through a structured program of rewards and punishments, etc.	Khan et al. (2015)
Servant leadership	Altruistic leadership approach; employee inspiration; building better organizations; creating a just and safe world; setting goals higher than your needs; this style is relevant for service organizations, especially educational, social, and healthcare organizations.	Greenleaf (2007)

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In this article, we will present more about transformational and innovative leadership styles, which are currently widely analyzed and studied by various scholars. And the factors presented in Figure 2 according to leadership styles can be applied by the business management team accordingly. Additional research and questionnaires, the SEM method, which is used to show causal relationships between variables, etc., are also needed. Transformational leadership primarily focuses on the growth and development of the leader and followers while meeting and overcoming challenges: the transformational leader primarily empowers others to independently solve problems and use their powers and opportunities to make the jointly agreed vision a reality. The traits and characteristics of transformational leadership, which focus on organizational change, implementing and creating change, have several important components that help achieve that change. It's about creating a vision for the organization and wanting followers to realize it, being proud of your followers, and showing that we are all equal members of the group. Based on fundamental moral values, a transformational leader formulates goals and activity methods and thus initiates change. It encourages followers to improve through continuous selfreflection and empowers them to commit to the organization and take responsibility for achieving its vision. A leader's primary goal of having group members

relinquish their interests for the good of the group fosters a culture of cooperation and independent decision-making. On the other hand, he treats followers as individuals and not just as group members. He constantly provides feedback and considers each follower's abilities and needs. Such leadership is based on emotions, values, ethical principles, and standards. Thus, change is one of the key features of transformational leadership. Various researchers also analyze the ability to adapt to various changes. Many people take care of their personal needs first, but in the case of transformational leadership, if you want to succeed, you need to consider the needs of the whole group. States that transformational leadership is the ability to make real changes for the organization and its employees. This type of leader promotes growth among employees and the development of organizations themselves. Another important trait of a transformational leader is the ability to see the leaders in their followers and a real concern for the needs of their employees. Northouse (2009) states that it is a process that aims to connect individuals, increasing the leader's and his followers' motivation to achieve common goals emphasizes transformational leadership aspects of social justice, democracy, and commitment to creating public goods. Some of authors in which the author analyzes how transformational leadership ensures the sustainability of change, only once again confirms the importance of such factors as a detailed and formally approved plan; professional change leadership team; departmental cooperation; as many support groups as possible, etc. Transformational leader can direct the individual needs of employees in such a way that it serves the interests of the whole group and the organization's good (Widisatria & Nawangsari, 2021). Thus, personal needs must contribute to work for organizational success. Caldwell and Shaver (2012) identified the characteristics of a transformational leader that characterize this type of leader. These are orientation to change, seeking agreement, charisma, dedication, principles and values, and self-evaluation. Briefly describing these characteristics, it can be said that change is associated with the desire to work together as a team to achieve common goals and the organization's interests. The agreement is a transformational leader's quest to find justice at work, the development of a learning organization, and the continuous learning of followers. Charisma is the ability to create an atmosphere of cooperation and implement and generate employees' ideas. Commitment is related to meeting the needs of followers and fulfilling obligations. Principles and values - an attribute that helps to increase the organization's effectiveness, following certain moral principles, guided by values, and finally. Does institutional innovation mean self-evaluation that helps motivate followers correctly and appropriately, rewarding them for their work and contributing to the organization's performance? Analyzing the transformational leadership style, one of the most important leadership factors is communication and empowerment to solve challenges independently, focused

on the growth of the leader and followers, orientation to changes, and implementing the desired result. The grouping is based on the leader's competencies. Distinguishes three important levels of the leader's communication skills. Here, a leader who can create a good communication system with employees plays a very important role: 1. personal communications (personal, interpersonal, collaborative, empathy, etc.); 2. team communication (appropriate feedback, discussion, and consultation platform that involves each team member in the organization's activities); 3. strategic and external communications (communication and cooperation with external partners, joint strategic projects, strategic sessions, etc.). According Židonis and Andriuškevičienė (2019), the following characteristics of a transformational leader can be distinguished: 1. Leader's charisma (positive qualities directed at followers, creating an emotional connection); 2. The leader's ability to inspire (expressing and presenting the organization's vision to followers, positive motivation to succeed); 3. Intellectual promotion (leader's ability to encourage followers to solve complex problems and find the best solutions); 4. Individual attention to followers (leader's ability to be interested in his followers, advise and educate, individually teach), share experience (Židonis & Andriuškevičienė, 2019). Enabling management is one of the most important factors that help to achieve operational efficiency and, at the same time, control and inspire the entire community (Židonis & Andriuškevičienė, 2019). As a transformational leader, the manager must be characterized by certain factors and qualities, such as various personal and social traits, as mentioned above by other scientists. The main ability of a transformational leader is to communicate, remain honest, be a learner, and constantly improve, to be able to take responsibility, and to be able to focus not only on results and tasks but on employees. Based on fundamental moral values, a transformational leader formulates goals and action methods and thus initiates the changes needed here and now. It encourages followers to improve through continuous self-reflection and empowers them to commit to the organization and take responsibility for achieving its vision. A leader's primary goal of having group members relinquish their interests for the good of the group fosters a culture of cooperation and independent decision-making. On the other hand, he treats followers as individuals and not just as group members. He constantly provides feedback and considers each follower's abilities and needs. The most important features: are the pursuit of innovation, consideration of individual needs, common goal pursuit, continuous improvement, and learning. And here, one of the most important practical tools is leadership mentoring. Thus, the leader's competence is mentoring and empowering followers to collaborate. So, to be a mentor, the leader must be able to apply various practical tools, and perhaps the most important here is self-knowledge tools such as Selfcoaching, Emotional inteligency (Boyatzis & Sala, 2004) and Enneagram (Ruso & Hudson, 1999; Chesnut, 2013;

Narancho, 1991; Zada et al., 2018) and practical use of various leadership styles according to the needs of followers. Organizational culture and behavior is also a very important factor. Academics who study organizational culture as their research topic believe that organizational culture is complex. This will influence various employee attitudes and behaviors; believed that employees could create a satisfactory work environment when there is a healthy culture in the organization, thus a positive attitude towards the employee's work. Therefore, researchers in various fields have emphasized the relationship between organizational culture and employee behavior. Showed a positive correlation between organizational culture and employee job satisfaction. Consistent with the findings of our study. Recent scientific research has shown that cultural intelligence is crucial for international teams and effective decision-making. Today's changes and leadership styles require a multidimensional approach, with the help of which leaders can effectively achieve goals and grow followers, and this has been proven in various studies. The paradigm of transformational leadership (TL) perfectly reflects how organizational culture and cultural intelligence influences consistency, and this field has been researched in the USA, Europe, UAE, et al. Davidaviciene et al. (2020a) also note that more empirical research is needed to understand how the different types of leadership in various virtual teams differ. This study is an important contribution to studying transformational leadership in the real workplace, and the findings of the researchers' study showed that better decisions could be made. Therefore, transformational leadership plays an important role in strengthening the decision-making processes of virtual teams (VTs). The hypothesis "H2: transformational leadership has a positive effect on VT decision-making processes" is hypothesized and is consistent with previous literature on the impact of TL on decision-making in the US and Europe. Researchers working with virtual teams need to be more careful in conceptualizing and operationalizing leadership and should strive for consistency across research or clarify their boundary conditions. The theoretical significance of this study on TL is that it builds on other researchers' research on decision-making in virtual teams where a transformational leadership paradigm has been applied. More importantly, we did not try to explain all the factors that directly impact VT decisions, but we identified the four most important research factors: conflict, relationship conflict, transformational leadership, and cultural intelligence (Davidaviciene & Majzoub, 2022). Cultural intelligence (CQ) refers to the ability of individuals to function in different cultural contexts (Wood et al., 2014). CQ is a four-dimensional construct and is used as the culture quotient. The four dimensions of this construct are metacognition, which refers to the processes that individuals apply to understand knowledge about different cultures (Wood et al., 2014); cognition, which includes the knowledge individuals have about cultural values and norms;

motivational, which is the ability of individuals to direct their efforts to learn, understand and understand the characteristics of different cultures and participate in intercultural communication despite possible challenges (Bernardo & Presbitero, 2017); and behavior that is related to actions created by employees of different cultures through verbal and non-verbal actions. Analyzing the style of innovative leadership, the leader's responsibility is increasing. It is noticed that the organization must have a system of praise that encourages new, original projects (Tsai, 2011). In conclusion, it should be noted that innovation is not only the responsibility of leaders. The whole team becomes the source of innovation. Innovative leadership is shared leadership, and an innovative leader is a visionary, a team mobilizer, a promoter of creative thinking, and a rational manager; monitoring of the external environment and insights into trends are becoming more and more relevant for leadership. Communication is key to collective creativity and knowledge sharing in modern organizations. Since effective knowledge management is essential for creating organizational innovations, the next chapter focuses on their essential aspects. Summarizing leadership styles, we can conclude that the role of the leader is very important when analyzing his competencies, and research reveals that the most successful conflicts are resolved using transformational leadership, but this cannot be unequivocally asserted. Therefore a deeper analysis and more detailed research in this area are needed, looking at various aspects of leadership, communication, conflicts decision-making style and discovering new ways of decision-making. All the discussed elements of the expression of innovative

leadership can be implemented only after creating an effective organizational communication system. One of the essential competencies of an innovative leader in an organization of effective organizational communication. The leader selects communication channels and establishes procedures to create a context so that employees want to work and the organization can function, communication must be frequent, repetitive, and enthusiastic; operative and systematic informing of all community members, without exception, about the goals and reasons for changes and process improvement, means, current and future changes, problems, crises and ways to overcome them. They can influence their attitudes and behavior at work by communicating and disseminating the organization's vision to employees and realizing their vision. Only where there is good interaction between the leader and the employees will be appropriate. Innovative leadership is shared leadership, and an innovative leader is a visionary, a team mobilizer, a promoter of creative thinking, and a rational manager; monitoring of the external environment and insights into trends are becoming more and more relevant for leadership. Communication is key to collective creativity and knowledge sharing in modern organizations. Since effective knowledge management is essential for creating innovations in the organization, the next chapter focuses on their essential aspects.

3. Results of the bibliometric analysis study

The authors processed a bibliometric analysis for 2020–2023 to find contemporary trends and gather the most

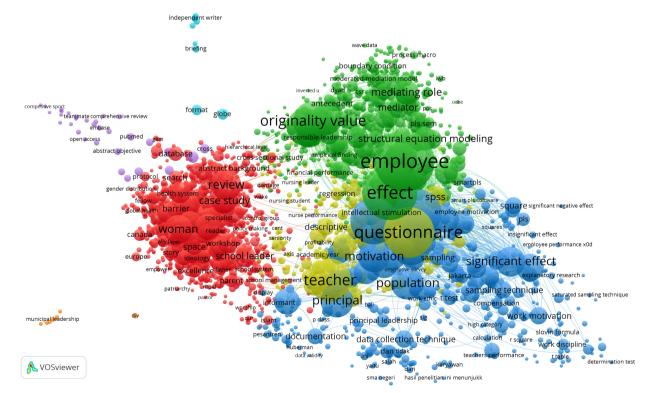


Figure 1. The prevalence of the most frequently used keywords used in author's publications, according to the search of "leadership" in the database "Vos viewer" (source: compiled by the author based on the results of the Vos viewer database)

popular keywords among the authors in the research field. After introducing the keywords: "leadership" in the base "Vos viewer," the results of the authors' publications were found, which were used to create bibliographic maps, which are depicted in Figures.

Figure 3 demonstrates the prevalence of the most frequently repeated keywords used by the authors, which are from the results of publications obtained in the Vos viewer database. As a result of this bibliometric analysis, a bibliographic map was generated with the most frequently repeated articles' authors, used by the authors' most commonly repeated words. Typically, circles on bibliometric maps can be of different colors, which separate clusters to show which keywords are closer to each other, and circles are also in various sizes and indicate the importance of the keyword; the brighter the meaning of the word is, the more important. The lines indicate the relationships between the elements. The brightness of the lines identifies the strength of the connection, and the different distances between the keywords define the intensity of the links. The closer the circles are to each other, the greater the interface between them.

However, in this case, in Figure 1, we can see the analysis of keywords that are associated indicated that four clusters exist in the analyzed number of science articles. The first cluster marked in green focuses on employee-related aspects. The second cluster, marked in blue, is oriented to the motivation of the workers. The third cluster, colored in yellow, focuses on the teacher's (trainer) role in building workers' competencies and skills. The last (fourth) cluster presented in red focuses on the woman as the leader's role in the workplace.

However, in this case, in Figure 2, we can see that all the significant words "effect", which occurred 1795 times, "employee", which occurred 1556 times, "influence", which occurred 1248 times, "performance", which occurred 1068 times, "questionaire", which occurred 1011 times, the size of the bigest circles, as much as the color, "transformational leadership", which occurred 911 times, "sample", which occurred 873 times, "teacher", which occurred 820 times, "respondent", which occurred 642 times, "review", which occurred 509 times, "originality value", which occurred 478 times, "mediating role", which occurred 509 times, "design methodology

Selected	Term	Occurrences ¥	Relevance	
V	effect	1795	0.20 (
V	employee	1556	0.28	
S	influence	1248	0.12	
V	performance	1068	0.14	
S	questionnaire	1011	0.24	
V	transformational leadership	912	0.19	
S	sample	873	0.25	
V	teacher	820	0.32	
S	article	702	0.67	
S	respondent	642	0.25	
S	variable	579	0.23	
V	review	509	0.63	
V	originality value	478	0.36	
V	principal	469	0.43	
S	mediating role	446	0.61	
V	design methodology approach	437	0.33	
S	hypothesis	434	0.32	
V	servant leadership	420	0.23	
S	population	414	0.31	
V	woman	410	1.23	
C	5 C	107		

Figure 2. The prevalence of the most frequently used keywords used in author's publications, according to the search in the database "Vos viewer"

Authors	Title	Source	Year	٧	 . 1	Citations
Zada, Muhammad; Zada, Shagufta;	How Cla	Frontiers in Psychology	2022	13		17
Islam, Talat; Ahmad, Saima; Ahme	Linking	Review of Managerial	2022			16
Saeed, Imran; Khan, Jawad; Zada,	Linking	Frontiers in Psychology	2022	13	Π	15
Alshareef, Nasser; Tunio, Muhamm	Role of L	Frontiers in Psychology	2022	13		14
Bakker, Arnold B.; Hetland, Jørn; Kj	Daily tra	European Manageme	2022		П	10
Parveen, Khalida; Tran, Phuc Quan	Identifyi	Frontiers in Psychology	2022	13		10
Helmold, Marc	Leaders	[no source]	2022		П	9
Islam, Talat; Zahra, Iram; Rehman,	How kn	Global Knowledge, M	2022			9
Li, Minyan; Yang, Feng; Akhtar, Mu	Respons	Frontiers in Psychology	2022	13		8
Maitlo, Qamaruddin; Wang, Xiutin	Explorin	Frontiers in Psychology	2022	13		8
Pham, Hai Thanh; Pham, Tho; Truo	Impact	Engineering, Constru	2022		П	7
Abbas, Ali; Chengang, Ye; Zhuo, Su	Role of	Frontiers in Psychology	2022	12		7
Rabiul, Md Karim; Shamsudin, Fari	Linking I	Journal of Hospitality	2021		П	7
Shukla, Balvinder; Sufi, Tahir; Joshi,	Leaders	Journal of Hospitality	2022			6
Zhou, Guangya; Gul, Rani; Tufail, M	Does Ser	Frontiers in Psychology	2022	13		6
Chen, Meizhao; Zada, Muhammad;	How Do	Frontiers in Psychology	2022	13		6
Zahoor, Sajjad; Yang, Shuili; Ren, Xi	Corpora	Frontiers in Psychology	2022	13	П	6
Wang, Wenxian; Kang, Seung-Wan	Servant	Frontiers in Psychology	2022	12		6

Figure 3. Leadership citations by author in the database "Vos viewer"

approach", which occurred 437 times, "severent leadership" which occurred 420 times, are distinguished by size, which means that they are essential, much less significant are "population", which occurred 414 times, "women" which occurred 410 times, much more less since the size of the circles is somewhat smaller "significant principal", "mediator", "case study", "school leader", "structural equation modeling", "work motivation", "spss", "data collection technique", "sampling technique", "documentation", "barrier", "space", "square". It should also be noted that all keywords are interdependent, but the distances of the connections are different.

Leadership citations by the author are reflected in Figure 3, where 12,948 documents were found by author citation. Iqbal et al. (2020, 2021a, 2021b,) authors presented data from bibliographic method articles, where the established relationship between "leadership and SP" was found. Only a few studies showed a direct effect of leadership on SP, lean innovation (Iqbal et al., 2020), psychological safety (Iqbal et al., 2020), organizational learning (Iqbal et al., 2020), structural empowerment (Sulasmi et al., 2020), managers' perceived rewards and benefits (Patiar & Wang, 2019), and knowledge management on the relationship between "leadership and SP".

In addition, previous studies from countries such as China, Pakistan, Malaysia, Indonesia, India, and Brunei have provided empirical evidence of the direct effects of sustainable leadership on SP through psychological safety (Iqbal et al., 2020), organizational learning (Iqbal et al., 2020), structural empowerment (Sulasmi et al., 2020) and frugal innovation (Iqbal et al., 2021b). Quantitatively studied Australia's identified transformation mechanism and a transactional "management-SP" relationship based on managers' perceived compensation and benefits practices (Iqbal et al., 2021b). However, their study did not suggest a mediating effect of corporate reputation on the relationship between "responsible leadership and environmental performance".

Conclusions

The paper presents a systematic literature review on sustainable leadership and fills the research gaps, identifying that transformational leadership style could suit the change of organization into being sustainable. Leadership styles significantly impact analyzing factors and achieving sustainable organizational goals. The decisions made by the leader depend very much on the skill and the ability to motivate the team members. Organizations must understand and assess the underlying factors influencing team performance and seek to improve competitive advantage in the marketplace. This article guides organizational leaders on how to apply different leadership factors, focusing on team member needs, level of engagement, and technological, social, e-emotional, and cultural literacy. A leader aspires to mentor and nurture followers, to seek the best solutions through Social Intelligence (SQ), Emotional intelligence (EQ), and Cultural intelligence (CQ), and apply practical tools accordingly. Results of the bibliometric analysis show that sustainable leadership is still an unresearched topic, as "sustainability" is not mentioned among top terms and not appears in any cluster. The presentation of the theoretical method should be measured in practice, creating the best strategies for the motivation and potential of the business and employees. The research results could be interesting for practitioners seeking to encourage applying the sustainability concept in the organization. The authors revised and recommended links among leadership elements. Future research should include a review of industries-based leadership aspects.

Funding

This study received no external funding.

Conflicts of interest

The authors declare no conflict of interest.

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