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Insights and Directions: Establishing a Research Agenda for Knowledge-Oriented Leadership in Higher Education (2013-2023)

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ABSTRACT	ARTICLE INFO
<p><i>This study aims to review the literature related to Knowledge-Oriented Leadership (KOL) in higher education. PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) was applied alongside a bibliometric method, using computational mapping analysis conducted with VOSviewer. The study's literature base covered Scopus-indexed journal articles and conference proceedings published between 2013 and 2023. The search query used the keywords "knowledge AND oriented AND leadership." From an initial set of 941 relevant records, the dataset was systematically narrowed through predetermined inclusion and exclusion criteria. The analysis then concentrated on the 10 most-cited articles, as well as 6 articles that explicitly included the term "Higher Education." Overall, the results help clarify directions for future research on Knowledge-oriented Leadership in higher education.</i></p> <p>© 2026 Kantor Jurnal dan Publikasi UPI</p>	<p>Article History: <i>Submitted/Received 1 Sept 2025 First Revised 18 Oct 2025 Accepted 18 Nov 2025 First Available online 22 Jan 2026 Publication Date 30 Jan 2026</i></p> <hr/> <p>Keyword: <i>Higher Education, Knowledge Management Knowledge-oriented Leadership, KOL, VOS Viewer.</i></p>

1. INTRODUCTION

1.1. Knowledge-oriented Leadership

Knowledge-oriented leadership (KOL) is a leadership style that focuses on the creation, sharing and application of knowledge in organizations to drive innovation and improve performance (Safari & Azadehdel, 2015) (Chaithanapat, et al., 2022). KOL is characterized by leaders who actively promote, encourage and reward employees' new ideas, and are committed to supporting knowledge and learning. KOL is defined as the integration of transformational and transactional leadership, with management teams perceived as actively engaged and dedicated to supporting the corporate learning environment (Chaithanapat et al., 2022).

KOL has been shown to have a significant impact on innovation performance. A study by Safari and Azadehdel (2015) found that knowledge-oriented leadership has a positive influence on innovation performance in manufacturing and commercial companies in Guilan province¹. Similarly, a study by Yang, Huang, and Hsu (2014) found that knowledge leadership has a positive effect on customer knowledge management (KKM). KOLs also play an important role in the process of corporate knowledge creation, providing vision, creating energy, and driving a continuous learning spiral in an organization². It is believed that knowledge-oriented leaders drive open innovation by encouraging their teams to acquire, assimilate, and exploit knowledge suitable for commercialization in the market (Chaithanapat et al., 2022).

Knowledge application is another important aspect of KOL. It involves the integration and application of knowledge to solve problems and improve the effectiveness of organizational activities¹. The ultimate goal of knowledge management is to apply knowledge to improve organizational performance (Safari & Azadehdel, 2015).

In summary, knowledge-oriented leadership is an important factor in driving innovation and improving performance in organizations. It involves promoting, encouraging and rewarding new ideas, supporting knowledge and learning, and integrating transformational and transactional leadership. Knowledge application is also important for solving problems and improving organizational activities.

Leadership development has emerged as an important aspect of higher education, with the need for effective leaders who can address complex challenges and drive positive change. To meet this need, institutions must prioritize leadership development and integrate it across multiple disciplines, ensuring that every member of the higher education community is engaged in developing leadership skills (Kasalak et al., 2022).

This can be achieved by leveraging resources, aligning initiatives and departments, and embracing leadership learning as a key goal of higher education. However, there is a need for better research to inform practice and guide the development and implementation of effective leadership development programs. By conducting comprehensive research in the area of knowledge-oriented leadership in higher education, we can gain valuable insights and set a research agenda for 2018-2024 that will guide future studies and advancements in this area. By reviewing the existing literature and using a bibliometric approach, we can map the evolution of the field of leadership development, identify current trends and challenges, and highlight gaps in knowledge that need to be addressed (Vögel, et al., 2021). This research agenda will provide a foundation for future research on leadership development, inform institutional practices, and ultimately contribute to the development of effective leaders in academia (Kasalak et al., 2022).

1.2. Knowledge Management in Higher Education

Knowledge management in higher education involves systematically organizing and disseminating knowledge to enhance teaching, learning, and research performance (Kumar, 2023). This includes developing an integrated knowledge management framework, promoting inter-institutional collaboration, strengthening technological infrastructure, cultivating a knowledge-sharing culture, and advancing open access to research outputs and educational materials (Jonas-Esan, 2023a). Knowledge management helps institutions to become more proactive and versatile in responding to external changes and to achieve more challenging goals (Johan-Esan, 2023b). It enhances the value and competitive standing of higher education institutions while contributing to renewal, international engagement, and social cohesion (Paudel, 2023). Within academia, knowledge management directly influences faculty academic performance and fosters richer scholarly dialogue (Lunev, et al, 2022).

Since knowledge management is considered to increase individual intellectual capital and contribute to the knowledge economy of society, the concept of knowledge management in higher education is important for the development of a stronger knowledge-based economy.

This study sought to answer the following research questions:

- (i) What is the trend of research publications on Knowledge-oriented Leadership over the past 5 years, based on the field of study and country of origin that produces the highest number of publications?
- (ii) What is the development of topics in research on Knowledge-oriented Leadership, and its relation to Higher Education?
- (iii) What is the literature mapping and opportunities for future research plans on Knowledge-oriented Leadership in Higher Education?

2. METHODS

2.1. PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis)

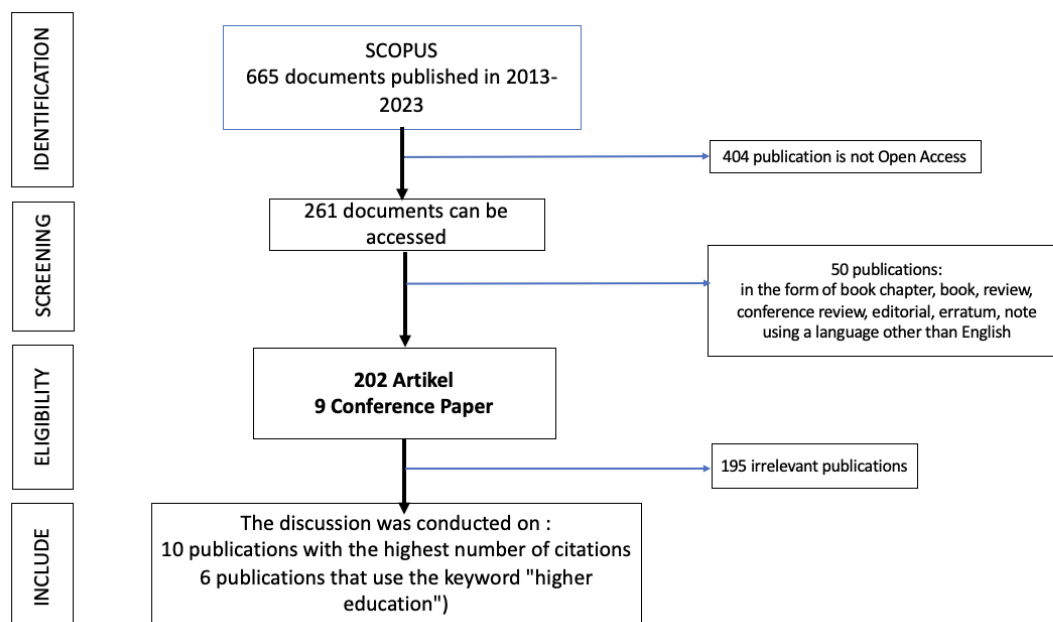


Figure 1. PRISMA Diagram of Knowledge-oriented Leadership Research

This study applies the PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis) approach. Data were retrieved from Scopus using the search string “knowledge AND oriented AND leadership,” which initially returned 941 records. After limiting the publication years to 2013–2023, the results were reduced to 665 documents, of which 261 were accessible. The dataset was then refined further by selecting only English-language journal articles and conference/seminar papers from journals and proceedings. This screening produced 211 publications in total: 202 journal articles and 9 seminar papers. Further details are presented in Figure 1.

2.2. Bibliometrics with VOS Viewer

The study employs a three-stage analytical framework, as illustrated in Figure 2. First, the research scope is defined by focusing on publications related to Knowledge-oriented Leadership using specific keywords. Data were collected from the Scopus database, yielding 211 documents—202 journal articles and 9 seminar papers—which were downloaded in RIS (Research Information System) format. Next, the complete RIS dataset was imported into VOSviewer to generate a visual bibliometric map.



Figure 2. Literature Framework

The second stage involves conducting a bibliometric analysis using VOSviewer, which enables the mapping of research patterns, clarifies the positioning of the study area, and visualizes literature clusters through color-coded groupings. VOSviewer provides three keyword-based visualization modes: **Network Visualization**, which identifies the strength of relationships among items; **Overlay Visualization**, which shows how items appear and evolve across time; and **Density Visualization**, which highlights the concentration of items within the map. At this point, the bibliometric analysis is limited to examining keyword linkages among journal articles and conference papers addressing the same theme.

The third stage consists of gathering and reviewing publications with a focus on journal articles and conference papers. The analysis targets the 10 most-cited works and an additional 6 publications that explicitly include the keyword “Higher Education.”

3. RESULTS AND DISCUSSION

3.1. Trends in Knowledge-oriented Leadership Research Publications in Higher Education

Based on the search for publication results with the theme Knowledge-oriented Leadership in the Scopus database from 2013 to 2023, 211 publication results were obtained. That is 202 including the category of journal articles and 9 including the category of seminar papers. Most of the research studies are 20.7% in social science, 17.4% in medicine, and 14.6% in business, management and accounting. The remaining 47.4% were divided into other fields such as computer science, environmental science, engineering, nursing, psychology, and economics, econometrics, arts and humanities, and others. For more details, please see Figure 3

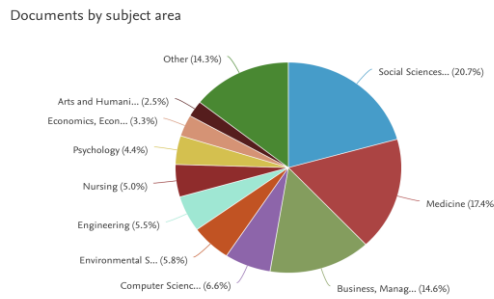


Figure 3. Categories of Knowledge-oriented Leadership publications by field of study

Source: Scopus 2024

In the last 10 years, the research trend on Knowledge-oriented Leadership has fluctuated. From 2013 to 2017 the number of studies moved up, from only 1 publication in 2013 to 20 publications in 2017. Then it decreased to 19 publications in 2018, and only 11 publications in 2019. However, since 2020 the number of publications has continued to increase dramatically to 30 publications, then increased to 31 publications in 2021, as many as 35 publications in 2022 and 37 publications in 2023. The publication trend of Knowledge-oriented Leadership research can be seen in Figure 4.

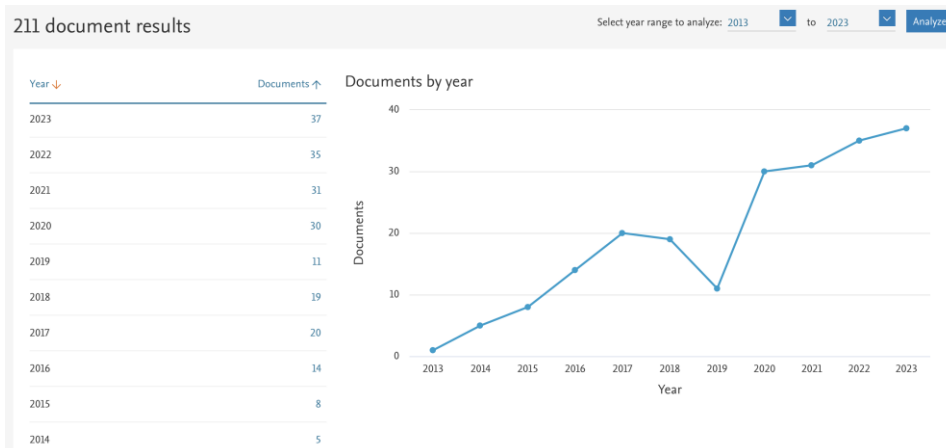


Figure 4: Trends in Knowledge-oriented Leadership publications

Source: Scopus 2024

Based on the search results of Scopus-indexed publications on Knowledge-oriented Leadership, it was found that the country that produced the most publications over the past 10 years was the United States with 43 publications, followed by the UK with 28 publications, and Sweden with 20 publications. While Indonesia is ranked tenth with a total of 8 research publications on Knowledge-oriented Leadership. This shows that in these countries, research topics related to Knowledge-oriented Leadership have developed and are in great demand. The top ten countries that produce Knowledge-oriented Leadership publications can be seen in Figure 5.

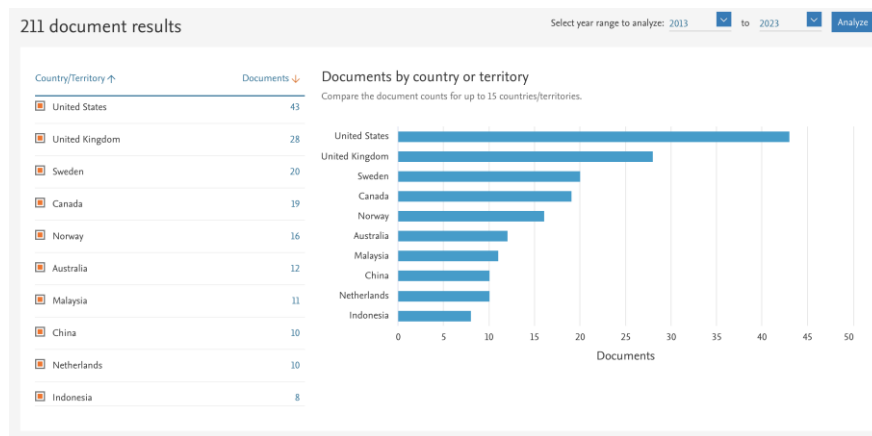


Figure 5: Top Ten Countries that Produce Knowledge-oriented Leadership Publications

Source: Scopus 2024

3.2. Systematic Literature Review dengan PRISMA

A Scopus search on Knowledge-oriented Leadership publications from 2013 to 2023 yielded 211 records, comprising 202 journal articles and 9 seminar papers. To identify the most influential contributions, 10 publications with the highest citation counts were selected from the 211 documents obtained through the PRISMA process within the 2013–2023 period. Citation analysis assesses how frequently an author’s work is referenced by other researchers (Aulianto & Nashihuddin, 2020). The results are presented in Table 1.

Table 1. Knowledge-oriented Leadership Publication Articles with the Most Citations

No.	Author/Year	Title	Number of Citations
1	Desimone, L.M., Garet, M.S.(2015)	<i>Best Practices in Teachers' Professional Development in the United States</i>	284
2	Ismagilova, E., Rana, N.P., Slade, E.L., Dwivedi, Y.K (2021)	<i>A meta-analysis of the factors affecting eWOM providing behaviour</i>	92
3	Chaithanapat, P., Punnakitikashem, P., Khin Khin Oo, N.C., Rakthin, S. (2022)	<i>Relationships among knowledge-oriented leadership, customer knowledge management, innovation quality and firm performance in SMEs</i>	89
4	Zia, N.U (2020)	<i>Knowledge-oriented leadership, knowledge management behaviour and innovation performance in project-based SMEs. The moderating role of goal orientations</i>	89

No.	Author/Year	Title	Number of Citations
5	Harnagea, H., Couturier, Y., Shrivastava, R., Bedos, C.P., Emami, E (2017)	<i>Barriers and facilitators in the integration of oral health into primary care: A scoping review</i>	89
6	Shamim, S., Cang, S., Yu, H (2019)	<i>Impact of knowledge oriented leadership on knowledge management behaviour through employee work attitudes</i>	79
7	Hu, Y.-Y., Parker, S.H., Lipsitz, S.R., ...Yule, S.J., Greenberg, C.C (2016)	<i>Surgeons' Leadership Styles and Team Behavior in the Operating Room Abstract presented at the American College of Surgeons 101st Annual Clinical Congress, Scientific Forum, Chicago, IL, October 2015.</i>	76
8	Gerpott, F.H., Fasbender, U., Burmeister, A (2020)	<i>Respectful leadership and followers' knowledge sharing: A social mindfulness lens</i>	70
9	Karakose, T., Yirci, R., Papadakis, S., ...Demirkol, M., Polat, H. (2021)	<i>Science mapping of the global knowledge base on management, leadership, and administration related to COVID-19 for promoting the sustainability of scientific research</i>	61
10	Powell, B.J., Mandell, D.S., Hadley, T.R., ...Hurford, M.O., Beidas, R.S (2017)	<i>Are general and strategic measures of organizational context and leadership associated with knowledge and attitudes toward evidence-based practices in public behavioral health settings? A cross-sectional observational study</i>	61
TOTAL			990

Source: Scopus 2024

Table 1 shows the 10 publications on Knowledge-oriented Leadership with the highest number of citations from 2013 to 2023. The research article conducted by Desimone, L.M & Garet, M.S. (2015) entitled "Best Practices in Teachers' Professional Development in the United States" received the highest number of citations (281 citations). His research used a literature review approach to present a conceptual framework for effective professional development, outlining five key features that characterize successful professional development initiatives. The results showed that changing procedural classroom behavior was found to be easier than improving content knowledge or inquiry-oriented instruction techniques, highlighting the range of teacher responses to the same professional development. Recent studies have shown that integrating professional development

knowledge or pedagogy into daily teaching is critical to effectiveness, emphasizing the importance of aligning professional development with classroom lessons and providing support for teachers to integrate new strategies effectively.

The next article with the title A meta-analysis of the factors affecting eWOM providing behavior, written by Ismagilova, E., Rana, N.P., Slade, E.L., Dwivedi, Y.K (2021) was cited 92 times. The purpose of this study is to synthesize findings from existing research on eWOM using meta-analysis, which will help to reconcile conflicting findings on factors that influence consumers' intention to engage in eWOM communication, Findings from 51 studies were used for the meta-analysis, which was conducted using comprehensive meta-analysis software, Factors that influence eWOM giving behavior are divided into four groups: personal conditions, social conditions, perceptual conditions, and consumption-based conditions. The results of the meta-analysis showed that of the 20 relationships identified, 16 relationships were found to be significant (opinion search, information usefulness, trust in eWOM web services, economic incentives, customer satisfaction, loyalty, attitude towards brands, altruism, affective commitment, normative commitment, opinion leadership, self-development, information influence, bond strength, similarity, and community identity).

Regarding the literature on knowledge management, leadership, and innovation, research conducted by Chaithanapat, P., Punnakitikashem, P., Khin Khin Oo, N.C., Rakthin, S. (2022). The article, which has been cited 89 times, investigates the possible relationships between customer knowledge management, knowledge-oriented leadership, innovation quality, and firm performance in 283 small and medium-sized enterprises (SMEs) in Thailand. The article entitled Relationships among knowledge-oriented leadership, customer knowledge management, innovation Quality and Firm performance in SMEs with 89 citations shows the results of the mediating role of customer knowledge management and knowledge-oriented leadership among these relationships are highlighted in SMEs, where human resources and invested capital are limited. Therefore, these findings contribute to the existing literature by providing empirical evidence to support that customer knowledge management mediates the relationship between knowledge-oriented leadership and innovation quality.

In agreement with this, the article Zia, N.U (2020) in his article entitled Knowledge-oriented Leadership, knowledge management behavior and Innovation Performance in Project-based SMEs. The moderating role of goal orientations has a total of 89 citations, aiming to examine the relationship between knowledge-oriented leadership (KOL), knowledge management behavior (KM), and innovation performance in project-based small and medium enterprises. This study investigates the moderation of goal orientation in the relationship of KOL with knowledge acquisition, transfer, documentation, and application. KOL was positively related to KM behaviors and innovation performance. KM mediated the relationship between KOL and innovation performance. Furthermore, goal orientation plays a moderating role in the relationship of KOL with knowledge acquisition, transfer, and application activities.

While Harnagea, H., Couturier, Y., Shrivastava, R., Bedos, C.P., Emami, E (2017) entitled Barriers and facilitators in the integration of oral health into primary care: A scoping review with a total of 89 citations, has advanced knowledge regarding barriers and facilitators in each domain and level of integration, which may be useful if health organizations decide to integrate oral health services into primary health care. The findings from this scoping review may be useful for the dental and medical workforce and related primary healthcare providers. The findings may also guide the development of healthcare policies that support collaborative practice and patient-centered care in the primary care field.

Based on the analysis of the research theme of 5 publications with the highest number of citations (990 citations in total), it shows that overall, in the last 10 years of research

publications on the theme of KOL, it is known that knowledge-oriented leadership has a significant impact on knowledge management behavior and innovation performance. Knowledge management plays an important mediating role, and various moderating factors need to be considered to optimize the effectiveness of KOL. Integrating knowledge into daily practice and understanding barriers and facilitators are key to achieving optimal results.

However, none of the highest-cited articles specifically discussed or related to KOL in Higher Education. Therefore, the author conducted further analysis by re-selecting the publication search results by using the "Higher Education" keyword filter on the 211 documents found. The search results obtained as many as 6 relevant publications can be seen in Table 2.

Table 2 shows publications that specifically discuss or link Knowledge-oriented Leadership with higher education, namely 6 articles that use the keyword "higher education" in the Scopus search filter.

Table 2. Discussion of Knowledge-oriented Leadership in Higher Education

No.	Title	Author/Year	Citation
1.	<i>Leadership, culture, intellectual capital and knowledge processes for organizational innovativeness across industries: the case of Poland</i>	Kucharska, W. (2021)	33
2	<i>Environmental Justice Pedagogies and Self-Efficacy for Climate Action</i>	Bartlett, M., Larson, J., Lee, S. (2022)	5
3	<i>Understanding the key processes of excellence as a prerequisite to establishing academic centres of excellence in Africa</i>	Fekadu, A., Oppenheim, C., Manyazewal, T., ...Medhin, G., Makonnen, E. (2021)	5
4	<i>Collective and individual sources of women's creativity: Heroism and psychological types involved in enhancing the talent of emerging leaders</i>	Pestana, J.V., Codina, N. (2020)	4
5.	<i>Sustaihabiitiy through directed change in the visionary university: From predicting to producing the future</i>	Curaj, A., Păunică, M., Popa, A., Holeab, C., Jora, O.-D. (2020)	4
6.	<i>Exercise on transdisciplinarity: Lessons from a field-based course on rural sustainability in an aging society</i>	Kudo, S., Mursaleen, H., Ness, B., Nagao, M (2018)	4
TOTAL			55

Source: Scopus 2024

First, the article written by Kucharska, W. (2021) conducted research on the micro mechanisms of intellectual capital formation related to formal and informal knowledge processes, focusing on the role of organizational culture, transformational leadership, and innovation. Based on an empirical model analysis of 1,418 knowledge workers in Poland, it was found that innovation-oriented transformational leadership develops all components of intellectual capital. To achieve the best results in the transformation of knowledge into intellectual capital, a learning culture that supports and accepts mistakes is essential. The findings provide practical guidance for organizations to enhance innovation by strengthening learning culture and informal knowledge processes.

While Bartlett, M., Larson, J., Lee, S. (2022) examined how an environmental justice course at the University of Michigan can increase students' self-efficacy in climate change action. It was found that the justice-based teaching approach helped students understand the root of the problem, the importance of collective action, and develop empathy. Self-efficacy for climate action emerged when students felt confident in certain skills and when the scale of the problem matched their ability to address it. These findings support previous evidence that environmental justice pedagogical approaches can promote engagement and empowerment in climate action.

Another study titled Understanding the key processes of excellence as a prerequisite to establishing academic centres of excellence in Africa, this study identified three key processes for achieving academic excellence in regional Centers of Excellence (CoEs) established with World Bank support: participatory leadership, knowledge management, and interdisciplinary collaboration. Participative leadership encourages innovation and ownership of a culture of excellence. Knowledge management ensures the CoE keeps abreast of best practices and the latest research. Interdisciplinary collaboration increases research productivity and problem-solving innovation. These three processes are essential for the institutionalization of academic CoEs in Africa.

In an article entitled Collective and individual sources of women's creativity: Heroism and psychological types involved in enhancing the talent of emerging leaders, Pestana, J.V., Codina, N. (2020) explored heroism in leadership and the unconscious characteristics (collective, personal) and consciousness of leaders that can mobilize their followers, focusing on the creativity of women leaders from a sustainable point of view. The study involved 34 students of a Master's program oriented towards training future CEOs, using tools such as personal stories, Myers-Briggs Type Indicator (MBTI), Twenty-Statement Test (TST), and personal values questionnaire. The results show a general structure of personal heroism stories and characteristics (unconscious, conscious, personal, and collective) that can encourage the sustainable use of personal creativity. This research provides insights that can be integrated into other leadership analysis perspectives.

Meanwhile, Curaj, A., Păunică, M., Popa, A., Holeab, C., Jora, O.-D. (2020) in their research explored university sustainability from three functional objectives: (i) development of appropriate knowledge, (ii) development of students' skills as a future workforce, and (iii) development of adaptive institutional capacity. Sustainability in higher education is seen as a process driven by change, not as a threat. This process should be guided by proactive action, with a systemic approach that combines prognosis with proactivity. This essay contextualizes the concept of a sustainable university, identifies managerial, teaching and research issues in higher education, and explains how to build a culture of collaboration to share good practices and overcome obstacles. In addition, the essay offers a strategic understanding and performance toolkit with innovative approaches for universities seeking to achieve full sustainability, relevant for the future of higher education in Romania.

And the last article on the theme of KOL with the keyword Higher Education is an article written by Kudo, S., Mursaleen, H., Ness, B., Nagao, M (2018) with the title Exercise on transdisciplinarity: Lessons from a field-based course on rural sustainability in an aging society. This study explores how field-based courses can develop core skills for sustainability experts through a case study of the Global Field Exercise (GFE) course in the Graduate Program in Sustainability Science-Global Leadership Initiative (GPSS-GLI) at the University of Tokyo.

The program combines three types of skills required in sustainability science: descriptive-analytical skills, solution-oriented skills, and attitudinal skills. The course provides unique learning opportunities to develop: (i) the ability to exercise core competencies collectively; (ii) an interdisciplinary mindset to appreciate different views in group discussions; (iii) a transdisciplinary mindset to communicate research results with local residents communicatively; (iv) the ability to empathize with others' experiences in addressing the normative dimensions of sustainability.

Based on the analysis of Knowledge-Oriented Leadership (KOL) themed articles with the keyword Higher Education from 2013-2023, there are some key findings and important trends that reflect the development and urgency of this research theme, namely these studies show that knowledge-oriented leadership and innovation are essential in the context of higher education to face global challenges such as climate change and sustainability. Environmental justice and sustainable approaches in teaching and research are essential to enhance student engagement and empowerment.

In addition, there will be an increase in approaches that integrate technology and innovation in higher education to support sustainability. A focus on developing adaptive and flexible skills will become increasingly important to prepare students for fast-changing global dynamics. Global collaboration and knowledge exchange between higher education institutions will increase to collectively address sustainability challenges.

3.3. Bibliometric Analysis with VOS Viewer

In addition, to map publications through network/keyword linkages, trace the literature's development over time, and visualize keyword-based density patterns, a bibliometric analysis was conducted using VOSviewer, as shown in Figures 5, 6, and 7.

In the network visualization shown in Figure 5, each item is represented by a label and also by a circle. The size of an item's label and circle is determined by the size of the item. The larger and stronger an item is, the larger the label and circle of the item will be. For some items, labels may not be displayed. This is done to avoid overlapping labels. The color of an item is determined by the cluster it belongs to. Lines between items represent links. The distance between the two journals in the visualization shown roughly indicates the relatedness of the journals in terms of citation links. In general, the closer two journals are to each other, the stronger the linkage. The strongest co-citations between journals are also represented by lines.

The network mapping of the Knowledge-oriented Leadership study consists of 86 items, 6 clusters, 1945 links, and a total link strength of 5256.

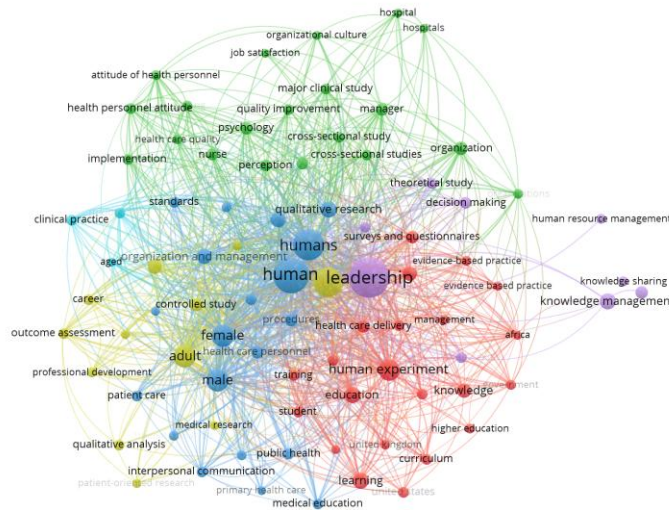


Figure 5. Visualization of the Knowledge-oriented Leadership network
Source: VOS Viewer 2024

Based on the network visualization Figure 5, shows six research clusters categorized by certain colors, and in each cluster, several keywords with the same color can be seen. Cluster 1 addresses the theme of learning visualized by red, while Cluster 2 addresses the theme of colleges/universities visualized by green, cluster 3 addresses the theme of demographic characteristics with a dark blue visualization color, and Cluster 4 addresses the theme of service quality and developing countries visualized by yellow. Cluster 5 is visualized by purple, while Cluster 6 is visualized by light blue. For more details, please refer to Table 3.

In Figure 5 it can also be seen that the strongest item in Knowledge-oriented Leadership is the item "leadership" which is in cluster 5, with 85 links, a total link strength of 739 from 95 occurrences. Then followed by the item "human" which is in cluster 3, with 84 links, a total link strength of 780, and 75 occurrences. The next item is "article" which is in cluster 4 with 83 links, total link strength of 523 from 50 events. This means that the item "leadership" or leadership has the most links with the highest total link strength in the Knowledge-oriented Leadership literature.

Table 3. Knowledge-oriented Leadership Network Grouping Colors

Cluster	Keywords.	Color
Cluster 1 (22 item)	<i>africa; capacity building; curriculum; delivery of health care; education; evidence-based practice; evidence-based practice; government; health care delivery; health care policy; higher education; human experiment; knowledge; learning; management; questionnaire; student; surveys and questionnaires; sustainability; training; united kingdom; united states</i>	Red

Cluster	Keywords.	Color
Cluster 2 (20 item)	<i>attitude of health personnel; cross-sectional studies; cross-sectional study; health care quality; health personnel attitude; hospital; hospitals; implementation; job satisfaction; major clinical study; manager; nurse; nursing; organization; organizational culture; organizations; perception; psychology; quality improvement; total quality management</i>	Green
Cluster 3 (20 item)	<i>clinical competence; communication; female; health care personnel; health personnel; human; humans; implementation science; interpersonal communication; interview; male; medical education; organization and management; patient care; primary health care; procedures; public health; qualitative research; standards; thematic analysis</i>	Blue
Cluster 4 (12 item)	<i>adult; article; career; controlled study; medical research; outcome assessment; patient-oriented research; practice guideline; professional development; qualitative analysis; skill; workplace</i>	Yellow
Cluster 5 (9 item)	<i>decision making; human resource management; knowledge management; knowledge sharing; knowledge-oriented leadership; leadership; physician; systematic review; theoretical study</i>	Purple
Cluster 6 (3 item)	<i>aged; clinical practice; middle aged</i>	Light Blue

Source: VOS Viewer 2024

Furthermore, Figure 6 presents the development of the literature of research on Knowledge-oriented Leadership from year to year. The color range is from blue (oldest), then green, and finally yellow (newest).

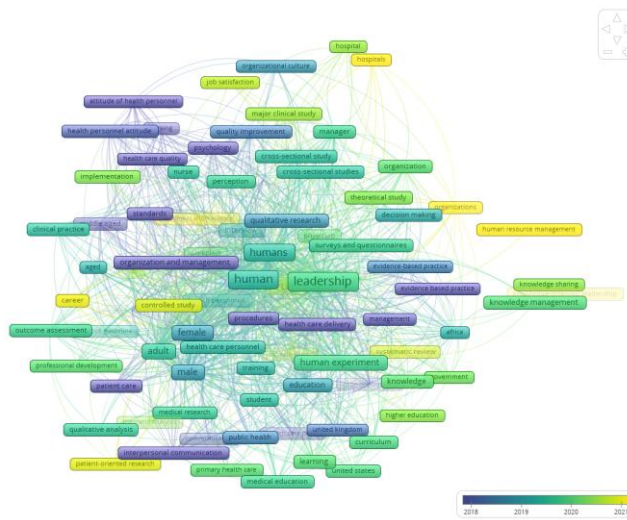


Figure 6. History of the development of Knowledge-oriented Leadership literature

Source: VOS Viewer 2024

Figure 7 presents a density visualization of the research landscape. The intensity of the shading reflects how frequently an item appears as a keyword within a given area: lighter and brighter regions indicate a higher volume of studies using that keyword, whereas darker regions suggest it is less commonly applied. Accordingly, keywords located in darker areas may offer stronger opportunities for research novelty, as they have been explored relatively less in the existing literature.

In Figure 7, the area around the item's "leadership", "human" and "humans" is the brightest. Followed by the area around the item's "adult", "male" and "female". This means that research on Knowledge-oriented Leadership uses the most leadership items as keywords, and uses the words adult, male, and female as demographic characteristics in the dynamics of knowledge-based leadership research.

Based on the mapping in the three figures, it can be concluded that the Knowledge-oriented Leadership literature is divided into six clusters. And the density of keyword usage in the Knowledge-oriented Leadership literature is centered mostly on the item's "leadership" and "human".

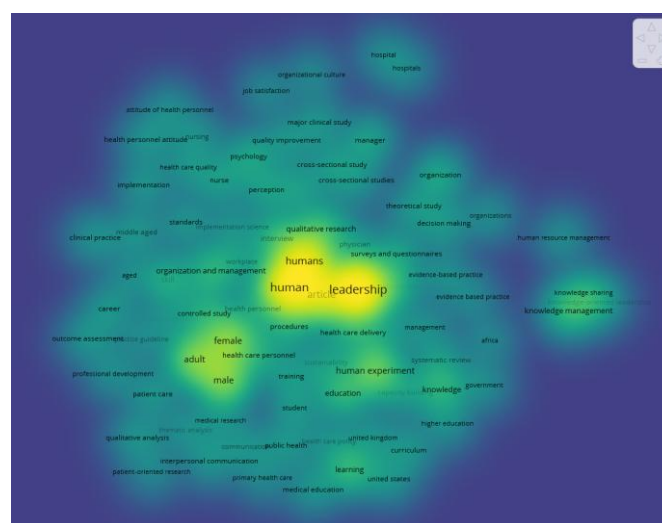


Figure 7. Visualization of Knowledge-oriented Leadership literature

Source: VOS Viewer 2024

4. CONCLUSION

Based on Scopus-indexed publication trends, literature review results, and bibliometric analysis during the period 2013 to 2023, it can be concluded that Knowledge-oriented Leadership research has not been widely studied in the context of higher education. Studies that link Knowledge-oriented Leadership with higher education are relatively few. From a total of 211 relevant documents, only 6 research articles specifically use the keyword "higher education".

In addition, the results of Bibliometric analysis also show that there is no direct keyword connection between "Knowledge-oriented Leadership" and the keyword "higher education". This can be used as an opportunity for future research development related to the study of Knowledge-oriented Leadership in Higher Education in the context of Knowledge Management. In addition, this opportunity can also be a novelty of research novelty. It is hoped that by knowing and understanding more about Knowledge-oriented Leadership in Knowledge Management-based Higher Education comprehensively, it can provide the widest possible benefits for various parties

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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