

Knowledge Sharing, Transformational Leadership And Innovation Performance: Gaps And Research Agenda

Théo Augustus Luz¹, Clarissa Carneiro Mussi^{1,2}, Thiago Coelho Soares^{1,2}

¹Universidade do Sul de Santa Catarina – UNISUL, Brazil

²Ânima Institute – AI, Brazil

Abstract:

This article aims to analyze the relationship between these three constructs in the literature: knowledge sharing, transformational leadership, and innovation performance. As this is a systematic literature review article, we present the steps for portfolio selection (Boolean equation, inclusion and exclusion criteria) and portfolio analysis (bibliometric and content systematization analysis). The research gaps identified were the need for explanatory articles, qualitative articles, and longitudinal studies. Suggestions for future research extracted from the bibliographic portfolio can be grouped into three: studies in service companies in developing countries; the pandemic caused by COVID-19 as an essential analytical factor, that is, pre- and post- pandemic results may be different; studies at the individual and organizational level is a factor for future research.

Keyword: Knowledge Sharing; Transformational Leadership; Innovation Performance

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I. Introduction

The contemporary business scenario is marked by constant and accelerated changes, even in the context of higher education. In this way, the role of knowledge, leadership, and innovation has become central to sustainability and business success. The ability to manage, share, and apply knowledge is recognized as a driver of organizational performance and competitive advantage. In this context, transformational leadership emerges as a catalyst capable of influencing organizational culture and, consequently, innovation performance^{1,2}.

Research on transformational leadership highlights how inspiration, shared vision, and employee engagement help drive significant change and innovation performance. Furthermore, a leader's ability to facilitate knowledge sharing within the organization helps promote a culture of continuous learning and stimulates creativity and innovation.

Sharing knowledge within an organization is not just about transferring information but also about creating an environment conducive to collaboration, learning, and adaptation. Transformational leadership, in turn, seeks to inspire and empower team members to reach their full potential, creating a culture that values innovation and experimentation. Understanding how these two concepts intertwine and impact innovation performance has become a field of study in the area of management^{3,4,5}.

This article aims to analyze the relationship between these three constructs in the literature: knowledge sharing, transformational leadership, and innovation performance. Thus, the existing literature on knowledge sharing, transformational leadership, and innovation performance will be examined. Furthermore, we will present information from bibliographical research that illustrates the importance of these concepts in different organizational contexts. In doing so, we hope to contribute to a deeper understanding of the complex interactions between knowledge sharing, transformational leadership, and innovation, as well as to provide practical insights that can be applied by leaders and managers in their organizations.

Throughout this article, we will explore how transformational leaders can influence knowledge sharing and, consequently, drive innovation performance. Furthermore, we will identify the challenges and opportunities organizations face when seeking an integrated approach to these constructs. Thus, this research seeks to provide a basis for improving theory and practice concerning knowledge sharing, transformational leadership, and innovation performance, thereby contributing to the ability of organizations to thrive in an increasingly dynamic and competitive.

II. Theoretical Review

Transformational leadership: is a leadership style that focuses on inspiring and motivating members of a team or organization to achieve high levels of performance and innovation. This leadership style goes beyond simple

management and administration, as it seeks to create significant changes in the organization's culture and vision, driving positive transformation^{6,7}.

Innovation performance: refers to an organization's ability to generate, adopt, and implement new ideas, processes, products, or technologies effectively and successfully. It is a measure of how well an organization can create and leverage innovation^{1,2,4,8}.

Knowledge sharing: is the process by which people or organizations transfer information, experience, skills, ideas, and insights to each other. It involves intentionally disseminating knowledge so that others can benefit from it. Knowledge sharing can occur in various contexts, including businesses, educational institutions, online communities, and others^{2,9,10,11}.

Based on the analysis, it is clear that the relationship between knowledge management and transformational leadership in organizations involves a series of precedents and consequences that can significantly influence performance and organizational culture. Precedents of this relationship include the presence of transformational leaders in organizations who inspire and motivate their teams through a shared vision and high values. Furthermore, an organizational culture that promotes continuous learning and innovation is an important precedent, as it creates the enabling environment for effective knowledge management. Transformational leadership is an essential precedent for knowledge management since leaders who value the learning and personal development of their employees tend to actively promote the creation, sharing, and use of knowledge within the organization. This leads to the development of a culture of continuous learning, where employees feel encouraged to contribute their ideas and experiences, promoting effective knowledge management.

On the other hand, knowledge management also has several consequences concerning transformational leadership. When organizations implement effective knowledge management practices, leaders have access to valuable information and insights they can use to make more informed and strategic decisions. This, in turn, strengthens your ability to lead based on evidence and promotes a shared vision among employees. Furthermore, knowledge management contributes to organizational innovation as ideas and knowledge are shared and combined effectively. Transformational leaders can use this innovative environment to lead change and transformation initiatives that drive the organization's growth and competitiveness¹².

III. Methodological Procedures

As this is a systematic literature review article, we present the steps for selecting and analyzing the portfolio.

Bibliographic Portfolio Selection: consisted of searching for scientific material in databases systematically. Initially, the keywords on the research topic in English were defined, separating them into three research axes. Next, the databases on the Capes Portal (CAPES) that had the greatest relationship with the research topic were selected according to the authors' concepts. Around 15 databases and more than 400,000 documents related to knowledge management were found. After searching for scientific articles written in English, the process presents a series of filters to generate the portfolio of articles most relevant to the topic. These filters refer to redundancy (repeated articles in the portfolio), alignment by title, and scientific recognition. As a result, it aligned with the theme and was scientifically recognized.

Equation Boolean: "transformation* lead*" and ("knowledge shar*" or "knowledge transf *") and innov *. On the Web of Science, the search was done using the keywords "abstract." In Scopus, in "article title, abstract and keywords." The result of the bibliographic portfolio selection process is expressed in Table no 1.

Table no 1. Selection of the bibliographic portfolio

	Web of Science	Scopus	Science Direct
Search result with Boolean equation	52	73	134
Articles Filter	42	60	111
Filter 2020-2024	28	37	38
Business and Management Area Filter	21	27	29
Filter and Reading the title and summary and duplicates	13	7	3

Source: authors

Bibliometric Analysis: the statistical data of the articles obtained in step (a) was quantitatively demonstrated and carried out by counting parameters such as publications, authors, citations, periodicals, and databases.

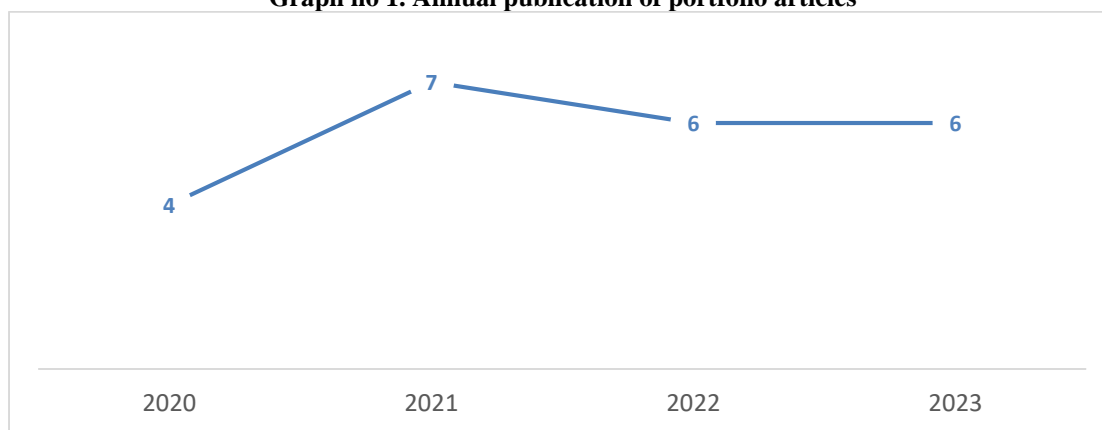
Content systematization: the information from the bibliographic portfolio obtained at the end of stage (b) was qualitatively highlighted concerning research assumptions, interview script, research findings, limitations, and suggestions for future research.

IV. Data Analysis

The data will be presented in two ways, the first bibliometric and the second content systematization.

Bibliometric Analysis: Initially presents the _ periodicals that had articles selected from the portfolio bibliographic: Journal of Knowledge Management (4) Journal of Business Research (2); Administrative Science (1); European Journal of Innovation Management (1); Industrial and Commercial Training (1); Information Sciences Letters (1); International Journal of Emerging Markets (1); International Journal of Hospitality Management (1); International Journal of Innovation Management (1); International Journal of Organizational Analysis (1); International Journal of Innovation Science (1); International Journal of Technology Management (1); Journal of Asian Finance Economics and Business (1); Journal of Innovation & Knowledge (1); Journal of Intellectual Capital (1); Knowledge Management Research & Practice (1); Quality (1); Sustainability (1) and VINE Journal of Information and Knowledge Management Systems (1). Graph no 1 shows the publication of articles over the years.

Graph no 1. Annual publication of portfolio articles



Source: Prepared by the authors

As for the authors of the articles, it is observed that no author published more than one article in our portfolio. However, there were recurring nationalities in the articles: China (5); Vietnam (4); Pakistan (2); Kuwait (2); South Korea (1); India (1); Indonesia (1); Japan (1); Jordan (1); Lebanon (1); Malaysia (1); Poland (1); United Kingdom (1); Taiwan (1). Graph no 2 shows the countries with the most publications, marked in blue with more publications, in white with fewer publications, and in gray those with no publications.

Graph no 2. Nationality of article authors



Source: Elaborated by the authors

As for keywords, the most frequent: knowledge (18), innovation (15), leadership (11), transformational leadership (8), sharing knowledge (8); innovation performance (6), leadership knowledge (6), culture (4), management (4), hierarchical (2), and higher education (2). Figure no 1 presents the word cloud.

Figure no 1. Keyword cloud of articles in the bibliographic portfolio



Source: Prepared by the authors.

When analyzing the research methodology presented in the portfolio, we have a systematic literature review article, a qualitative article (case study), and twenty-one quantitative articles, sixteen of which use structural equation modeling.

Content Systematization: Concerning content systematization, we use the following analysis criteria: theoretical assumptions, research findings, limitations of the study, and suggestions for future research. The first two items allow us to identify what is already known about the topic we are addressing in the research. The remaining items allow us to verify how future research can contribute to the literature.

The analysis of theoretical assumptions of a bibliographic portfolio allows us to understand which relationships between the studied constructs are already predicted in the literature. Regarding the relationship between knowledge sharing, innovation performance and transformational leadership, there is: There is a positive effect of transformational leadership on product and process innovation; There is a positive effect of knowledge sharing on product and process innovation; knowledge sharing mediates the effects of transformational leadership in the innovation process⁴; Association between transformational leadership and innovative work behavior of frontline employees⁵; Knowledge-oriented leadership influences innovation performance through the mediating role of knowledge sharing²; Knowledge sharing and firm innovation performance depend on network trust and hierarchical culture¹; Strategic people management that incorporates four dynamic constituents – leadership, culture, learning, networking – helps to acquire, transfer and create knowledge relevant to the sustainability of a company⁷; Transformational leadership at the unit level, comprising idealized influence and inspirational motivation, will impact unit innovation performance through a dual mediating mechanism involving unit knowledge sharing climate and internal unit knowledge sharing⁶; openness to receive knowledge leads employees to share knowledge with colleagues in the workplace; openness to sharing knowledge leads employees to share knowledge with colleagues in the workplace³; knowledge management enablers (the value of top management knowledge, knowledge-oriented culture and knowledge-based rewards) influence the speed and quality of innovation¹¹; Knowledge sharing between peers affects the financial and innovation performance of companies⁹.

The research findings allow us to identify how the articles in the portfolio generated knowledge. In this bibliographical research, we have:

The research of Otair, Abualoush, Obeidat, and Bataineh⁴ presents a response to the gap in the literature, focusing on how knowledge sharing mediates the impact of transformative leadership in specific characteristics of innovative performance. Lin⁵ presents that transformational leadership has a positive impact on innovative work behavior. Le and Do² found in their research that knowledge-sharing serves as a critical precursor to promoting

innovation performance, directly or indirectly, through the effect of knowledge-oriented leaders on tacit and explicit knowledge-sharing behaviors. Boadu, Du, Xie, and Dwomo-Fokuo¹ found in their research that knowledge sharing affects the innovative performance of companies. Sheehan, Garavan, and Morley⁶ highlight the importance of environmental-level transformational leadership behaviors in explaining innovation performance and responding to calls in the literature for research projects that can help unearth indirect relationships in the transformational leadership-innovation nexus. Ouakouak, Al Belushi, Ouedraogo, and Sawalha³ highlight in their findings that the openness of the knowledge receiver to receive and the openness to share knowledge influence the knowledge-sharing behavior of the supplier. The latter positively affects the supplier's professional performance and the work unit's innovative performance. Iqbal¹¹ reports that the value of top management knowledge and knowledge-based rewards have a positive effect on the speed and quality of innovation. The results of Muhammed and Zaim⁹ indicate that the extent of employees' involvement in knowledge-sharing behavior with their peers and leadership support from their managers have a positive impact on the success of organizations' knowledge management, which, in turn, it can positively affect organizations' innovation performance and subsequently their financial performance. Leadership support from the immediate manager is considered an important factor that contributes to the respondent's peer knowledge-sharing behavior.

A summary table is presented below to verify whether the hypotheses tested in the studies were supported, as well as to determine the factors of the relationships. It is noteworthy that Table no 2 expresses the hypotheses related to the three constructs studied in this article: transformational leadership, knowledge sharing, and innovation performance. Hypotheses present in the articles studied and which are not related to the objective of this study were not analyzed.

Table no 2. Results of the articles that make up the portfolio.

Hypotheses tested	Result	Control variables	Sector	Country	Application level
Direct association between unit-level transformational leadership and unit innovation performance	Supported hypothesis	education (0 = less than university; 1 = university; 2 = master's degree; 3 = doctorate). drive size (log of drive size); drive age (log of drive age).	Global companies based in the UK	UK	Individual
Unit-level transformational leadership is positively related to the unit's knowledge sharing climate	Supported hypothesis				
Internal unit knowledge sharing is positively related to innovative performance	Supported hypothesis				
Mediator internal knowledge sharing mediates between unit-level transformational leadership and unit innovation performance	Unsupported hypothesis				
Leadership support is positively related to the level of knowledge sharing between peers	Supported hypothesis	Not shown	Bank officer	Kuwait	Organizational
There is a positive effect of transformational leadership on product and process innovation	Supported hypothesis	Not shown	Pharmaceutical companies	Jordan	Organizational
There is a positive effect of knowledge sharing on product and process innovation	Supported hypothesis				
Knowledge sharing mediates the effects of transformational leadership on the innovation process (or product and process innovation).	Supported hypothesis				
Transformational leadership had a positive impact on innovative work behavior	Supported hypothesis	Not shown	Hotel	Malaysia	Organizational
Knowledge sharing affects companies' innovative performance	Supported hypothesis	Not shown	High technology companies	China	Individual
Knowledge sharing positively influences the innovative performance of the work unit.	Supported hypothesis	Not shown	Bank officer	Kuwait	Individual
The knowledge sharing process mediates the effect of knowledge management enablers (the value of top management knowledge, knowledge-oriented culture and knowledge-based rewards) on the speed and quality of innovation.	Supported hypothesis	Not shown	HEI	Pakistan	Organizational (answered by client)

Innovation has a significant influence on knowledge sharing	Supported hypothesis	Not shown	Small and medium-sized companies in the service sector	China	Organizational
Transformational leadership had a moderating effect on the relationship between innovation and knowledge sharing	Unsupported hypothesis				
Transformational leadership can negatively influence the innovative capacity of employees with certain personality traits.	Supported hypothesis	Not shown	Textile industry	Vietnam	Individual
Transformational leadership positively influences knowledge sharing.	Supported hypothesis	Not shown	HEI	South Korea	Individual
Knowledge sharing significantly mediates the relationship between transformational leadership and innovation.	Supported hypothesis	Not shown	Service and manufacturing companies	China	Organizational
Knowledge sharing moderates the link between transformational leadership and organizational effectiveness.	Supported hypothesis	Not shown	Bank officer	India	Individual
Transformational leadership positively influences innovative behavior	Supported hypothesis	Not shown	HEI	Pakistan	Individual
Transformational leadership positively influences knowledge sharing	Supported hypothesis	Not shown			
Knowledge sharing positively influences innovative behavior	Supported hypothesis	Not shown			
Mediating roles of knowledge sharing in the relationship between TL and innovation	Supported hypothesis	Not shown	Companies	Vietnam	Organizational

Source: Prepared by the authors.

The limitations of previous studies and suggestions for future work are presented below:

- (1) It will be beneficial to know whether the results of our investigation (transformational leadership, knowledge sharing, absorptive capacity, and innovation) have been approved in different contexts and regions. This study focused on the intermediary role of just one knowledge management process, which is knowledge sharing. However, it is a crucial factor in knowledge management processes, between transformational leadership, absorptive capacity, and innovation. But for a complete understanding of the role of knowledge management, i.e. (knowledge assets within the organization) in improving innovation in organizations, future studies should consider other knowledge management processes, e.g. (generation and storage of knowledge) or the intermediary role of intellectual capital, as one of the knowledge assets within the company between transformational leadership and innovation (incremental or radical)⁴;
- (2) The empirical study used only a sample of hotels in four provinces along the southeast coast of China. Therefore, to ensure generalizability and replication to other industries, future research could be improved by testing the model in regions other than these crucial provinces and service environments other than hospitality (e.g., other tourism sectors). Second, despite best efforts to collect data from many sources, these findings need to adequately capture the long-term influence of transformational leadership on innovative work behavior. Therefore, longitudinal research or experimental investigations could determine the causal relationship between the constructs. Finally, this study does not reveal the contribution of transformational leadership to innovation at the team and organizational levels because it only examined the relationship between transformational leadership and innovative work behavior at the individual level. Therefore, this work suggests that future studies investigate this association differently⁵;
- (3) While all leaders need to develop their dynamic capabilities to adjust to new contexts, transformational leaders will function best in a VUCA (volatility, uncertainty, complexity, and ambiguity) highly dynamic than transactional leaders⁷;
- (4) Researchers could leverage our results by using three or more collection points. Furthermore, additional longitudinal investigations could allow researchers to investigate the reciprocal nature of the TFL-innovation relationship and understand the role that high levels of unit innovation performance have on subsequent TFL behaviors and vice versa. A more extended period would also eliminate any potential for reverse causality. There is also space to investigate how collective perceptions of the unit's knowledge-sharing climate emerge, develop, and are maintained and about how phenomena emerge within unit organizations⁶;

- (5) The findings of this study are industry and country-specific (Kuwait) and, therefore, would likely not apply to other settings. Thus, similar future research targeting different industries and/or countries is warranted. As a cross-sectional study, this research may also benefit from subsequent longitudinal studies³;
- (6) Knowledge sharing is a topic of ongoing interest for organizational researchers, but limited empirical research has been conducted that links individual-level intra-organizational knowledge sharing to organizational performance⁹;
- (7) To further explore the relationship between human resource management practice and empowering leadership for knowledge-intensive teams, there are four types of research on the relationship between human resource management and leadership behavior: causal, joint, substitution, and reinforcement. Although this study confirmed the substitution effect of HRM practice and empowering leadership on team knowledge sharing and team innovative performance, according to the research literature based on HRM practices, When the level, social culture, organizational situation, and outcome variables are different, the relationship between human resource management practice and leadership behavior can be completely different. The corresponding research lays the foundation for research on the relationship between human resource management practice and the leadership behavior of knowledge-intensive teams. Also, it presents the requirements for further discussion on the relationship between them. Moreover, the following research should focus on a specific subject analysis¹⁰.

V. Final Considerations

This article analyzed the relationship between these three constructs in the literature: knowledge sharing, transformational leadership, and innovation performance. For this purpose, the portfolio selection was primarily based on the choice of databases that adhere to the theme: Web of Science, Scopus, and Science Direct. Next, the elaboration of the Boolean equation: " transformation * lead*" and " knowledge shar *" and " innovation performance". They ended with the exclusion criteria: the result of the search in the databases using the Boolean equation, results that were not Articles were excluded, articles that had not been published between the years 2020 and 2024, and subsequently, articles that were not in the area of Account, Business, and Management, the exclusion of duplicate articles between the databases, and finally reading the title and abstract to adapt the content of the bibliographic portfolio to the objective of this research. After defining the initial portfolio, the portfolio was analyzed, firstly with bibliometric analysis and later with content systematization. In the bibliometric analysis, journals with the highest number of publications, authors and their nationalities, most cited keywords, and most frequent research methodology were presented.

Concerning content systematization, we use the following analysis criteria: theoretical assumptions, research findings, limitations of the study, and suggestions for future research. The first two items allow us to identify what is already known about the topic we are addressing in the research. The remaining items allow us to verify how future research can contribute to the literature.

One of the functions of a systematic literature review article is to present research gaps found in the literature, as well as present an agenda for future research.

The gaps found in this research were (1) explanatory articles: the portfolio presented descriptive articles regarding the constructs of knowledge sharing, transformational leadership, and innovation performance, that is, there was a lack of exploring the reasons behind the relationships; (2) qualitative articles: the portfolio presented literature review articles (10%) and quantitative articles (90%). The identification and description of the relationship between the constructs are already presented in recent studies. However, a detailed analysis of the relationships still needs to be provided. (3) longitudinal studies: the articles with field research were all marked by studies with a cross-section of time. A deeper understanding of this relationship and how it occurs over the years has yet to be presented.

Suggestions for future research extracted from the bibliographic portfolio can be grouped into three: (1) it was observed that studies focused on service companies in developing countries. Therefore, exploring private banking and educational services via applications in developing countries is on the research agenda for the topic; (2) the articles that made up the bibliographic portfolio of this research also presented information about the micro and macroeconomic environments and their relationship with the constructs. Different articles pointed to the pandemic caused by COVID-19 as an essential factor for analyzing analysis; that is, pre- and post-pandemic results may be different. Thus, replications of previous studies and comparison of results are also on the research agenda; (3) studies at the individual and organizational levels were present in the portfolio. Thus, analysis at an inter-organizational level is a factor for future research.

Finally, the result of this systematic literature review will guide those researched on knowledge sharing, transformational leadership, and innovation performance in their future research by proposing to identify research gaps and propose an agenda for the search.

References

- [1]. Boadu F, Et Al. Is The Correlation Between Knowledge Sharing And Firm Innovation Performance Contingent On Network Trust And Hierarchical Culture? Evidence From The Chinese High-Tech Sector. *Int J Technol Manage.* 2023;92(3):206-228.
- [2]. Le PB, Do YH. Stimulating Innovation Performance Through Knowledge-Oriented Leadership And Knowledge Sharing: The Moderating Role Of Market Turbulence. *Int J Innovation Sci.* 2023.
- [3]. Ouakouak ML, Al Buloushi N, Ouedraogo N, Sawalha N. Knowledge Sharing As A Give-And-Take Practice: The Role Of The Knowledge Receiver In The Knowledge-Sharing Process. *J Knowledge Manage.* 2021;25(8):2043-2066. <https://doi.org/10.1108/JKM-04-2020-0323>
- [4]. Otair M, Abualoush S, Obeidat A, Bataineh K. Improving Firm's Innovation Performance Through Transformation Leadership And Knowledge Sharing: The Moderating Role Of Absorptive Capacity. Case Study In Jordan. *Information Sciences Letters.* 2022;11(5):<https://doi.org/10.18576/isl/110526>
- [5]. Lin Q. Transformational Leadership And Innovative Work Behavior: The Role Of Identification, Voice And Innovation Climate. *Int J Hosp Manage.* 2023;113:103521.
- [6]. Sheehan M, Garavan TN, Morley MJ. Transformational Leadership And Work Unit Innovation: A Dyadic Two-Wave Investigation. *J Bus Res.* 2020;109:399-412. <https://doi.org/10.1016/j.jbusres.2019.10.072>
- [7]. Zhang Y, Rohlfers S, Varma A. Strategic People Management In Contemporary Highly Dynamic VUCA Contexts: A Knowledge Worker Perspective. *J Bus Res.* 2022;144:587-598. <https://doi.org/10.1016/j.jbusres.2021.12.069>
- [8]. Agostineto RC, Et Al. Influence Of Intellectual Capital And Individual Absorptive Capacity On Innovation Performance. *Revista De Administração Da UFSM.* 2022;15:270-289.
- [9]. Muhammed S, Zaim H. Peer Knowledge Sharing And Organizational Performance: The Role Of Leadership Support And Knowledge Management Success. *J Knowledge Manage.* 2020;24(10):2455-2489.
- [10]. Han Z, Et Al. Human Resource Practice Management For Knowledge Intensive Team: IMPACT On Team Innovation Performance And Substitution Effect Of Empowerment Leadership. *Sustainability.* 2021;13(9):4801.
- [11]. Iqbal A. Innovation Speed And Quality In Higher Education Institutions: The Role Of Knowledge Management Enablers And Knowledge Sharing Process. *J Knowledge Manage.* 2021;25(9):2334-2360.
- [12]. Luz TA, Mussi CC, Soares TC. Knowledge Management, Innovation And Leadership: A
- [13]. Bibliometric Analysis. *IOSR Journal Of Business And Management.* 2023; 25(10):45-55. [Doi: 10.9790/487X-2510014555](https://doi.org/10.9790/487X-2510014555)