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SYSTEMATIC LITERATURE REVIEW OF PARADOX MINDSET: A BIBLIOMETRIC AND VISUALIZATION ANALYSIS

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Abstract

The tensions arising from paradoxes provide individuals with a path and opportunity for learning and exploring challenging issues in their work. The paradoxical mindset indicates the extent to which people embrace and are energized by tensions, which helps them leverage tensions and produce creative outcomes. The aim of this study is to explore the development of the paradox mindset field through the identification and analysis of publications within the social sciences. The study comprises a review of 154 publications from 1993 to 2024. Bibliographic coupling and co-citation analysis have been employed to identify influential work and gaps. The main contribution of this paper lies in the structured, comprehensive, and objective examination of the literature. The results of this study offer researchers and scholars guidelines for further exploration in the field of social sciences, while emphasizing to managers the importance of the paradox mindset and helping them deal with such behavior.

Keywords: *paradox mindset, paradoxical thinking, paradox theory, bibliometric analysis.*

1. INTRODUCTION

Throughout history, management and organizational theorists have largely disregarded the concept of paradoxes, dedicating minimal attention to developing theories that explicitly address tensions, oppositions, and contradictions. Organizations were conceived as spaces of order and rationality, and the understanding of organizations as paradoxical posed a threat to this

imagined order that began to emerge in the literature in the 1970s and 1980s. Among the many different theories, organizational paradox theory is one of the theories of organization and management that developed as a critique of oversimplified organizational theories that failed to explain or predict organizational problems as they became increasingly complex (Johansen, 2018; Smith and Lewis, 2011). It was felt that the management literature had oversimplified theories that might not help either managers or scholars deal with the complexity and contradictions in organizations (Poole and van de Ven, 1989). Even the contingency theories that emerged in the 1960s did not exactly deal with tensions, but with the context in which one or the other tension can function ideally (Smith and Lewis, 2011). Therefore, organizational paradox theory is the best theory for dealing with the complexity of organizational environments.

The concept of paradox mindset was developed from the organizational paradoxes theory. Employees who engage in a paradox mindset tend to appreciate, accept, and feel comfortable with tensions, viewing them as opportunities, and are proactive in addressing them (Smith and Lewis, 2011). In other words, tensions arising from paradoxes provide employees with avenues and opportunities for learning and exploring challenging issues in their work (Lewis and Smith, 2014). Employees with a paradoxical mindset are more likely to see conflicting demands from their superiors as opportunities that help them succeed in their jobs (Miron-Spektor, Ingram, Keller, Smith and Lewis, 2018). Following the COVID-19 pandemic, employees are increasingly faced with various challenging and conflicting circumstances (Pradies et al., 2021), and paradox mindset provides them with useful tools for coping with competitive demands, tensions, and anxiety (Nadiv, 2022).

The paradox mindset has gained increasing attention in organizational research (Liu, Xu and Zhang, 2020; Liu and Zhang, 2022; Miron-Spektor, Gino and Argote, 2011). Conducting a bibliometric analysis of paradox mindset literature is crucial to map the intellectual structure of the field, identify research trends, and highlight gaps for future studies. Such an analysis provides a strong foundation for understanding the relevance and evolution of paradox mindset research within the broader academic discourse.

In this paper, the author seeks to identify key research areas, current dynamics, and future directions in the development of a paradox mindset. This literature review will address the following research questions: (1) *How has paradox mindset literature evolved over time?*, (2) *What are the most common outcomes associated with paradox mindset?*, (3) *Which are the main journals, authors, publications and countries in the said field?*, (4) *Does a collaborative paradox mindset research network exist between publications?* To address these research questions, this paper employs a bibliometric approach to provide a comprehensive overview of existing research focused on paradoxical thinking. The aim is to offer a structured, quantitative, and objective analysis of existing research in the field of paradoxical thinking, thereby identifying potential areas and gaps in research for future researchers to consider.

2. METHOD

Web of Science (WoS) database is the oldest and most widely used database for research publications and citations. Established in 1964 by Eugene Garfield, it evolved from the Science Citation Index and offers comprehensive top research coverage (Birkle, Pendlebury, Schnell and Adams, 2020). In 2004, Elsevier introduced Scopus, becoming WoS's main competitor in the scientific database market (Sánchez, de la Cruz Del Río Rama and García, 2017). This study analyzes all publications on the paradox mindset retrieved from the WoS database. The WoS database is a primary source of bibliographic data, widely acknowledged for providing high-quality data for bibliometric reviews (Dropulić, Krupka and Vlašić, 2022; Grčić Fabić, Petrić and Srok, 2024).

The bibliometric analysis method was applied to examine the characteristics of all publications related to paradox mindset research. Župić and Čater (2015.) defined "*bibliometrics*" as a quantitative method for analyzing various elements of publications, including journals, authors, keywords, countries, citations, and co-authors. Bibliometric analysis requires visualization and mapping tools (Cobo, López-Herrera, Herrera-Viedma and Herrera, 2011).

In this study, *VOSviewer* software was utilized. This tool facilitates the extraction of citation links, link strength, and bibliographic coupling based on factors such as authors, country, citation, source, and others. *VOSviewer* provides descriptive statistics for the analyzed publications and enables the exploration of complex relationships among their characteristics (e.g., citation analysis, citation links, and bibliographic coupling) (Van Eck and Waltman, 2010.).

Additionally, *VOSviewer* is specifically designed to create, visualize, and analyze bibliometric maps of scientific research (Van Eck and Waltman, 2010).

As far as the author knows, there are no literature reviews and bibliometric analyses of the paradox mindset within the WoS database. Even though each literature review method has certain advantages and weaknesses, it makes sense to use several different methods when reviewing the literature. Given that bibliometric analysis has not been used to review the literature in this domain, it is certainly vital to use it for the acquisition of new knowledge and numerous advantages (Župić and Čater, 2015).

The first step in analyzing citations and common citations is to determine the sample, which is the document base. A keyword search was performed in the WoS database using the following keywords: ("*paradox thinking*") or ("*paradoxical thinking*") or ("*paradox mindset*") or ("*paradoxical mindset*"). All publications from 1993 to 2024 were included in the search, which was done on March 27, 2024. The initial search resulted in 154 articles. Before reading each of the 154 paradox papers published and indexed in WoS a priori coding was done. The document types chosen comprised articles, review articles, proceeding papers, book chapters, and book reviews, and the selected language was English. These criteria led to a database of 146 articles. The following criteria were chosen for the second-level search: Social Sciences

Citation Index (SSCI), Emerging Sources Citation Index (ESCI), Science Citation Index Expanded (SCI-EXPANDED), Conference Proceedings Citation Index – Social Science & Humanities (CPCI-SSH), Conference Proceedings Citation Index – Science (CPCI-S) and Book Citation Index – Social Sciences & Humanities (BKCI-SSH). The second-level search resulted in 139 articles. Finally, this primary base of works was narrowed according to the scientific field wherein management, business economics, applied psychology, psychology social, multidisciplinary psychology, and multidisciplinary science were selected, resulting in 114 articles on the search topic.

Publications are ordered according to the relevance criterion in the WoS database. The ranking considers the extent to which the title, abstract, and keywords of each paper match the keywords in the search. In this study, 114 publications were retrieved and analyzed from the WoS database. Figure 1 below illustrates the WoS research design.

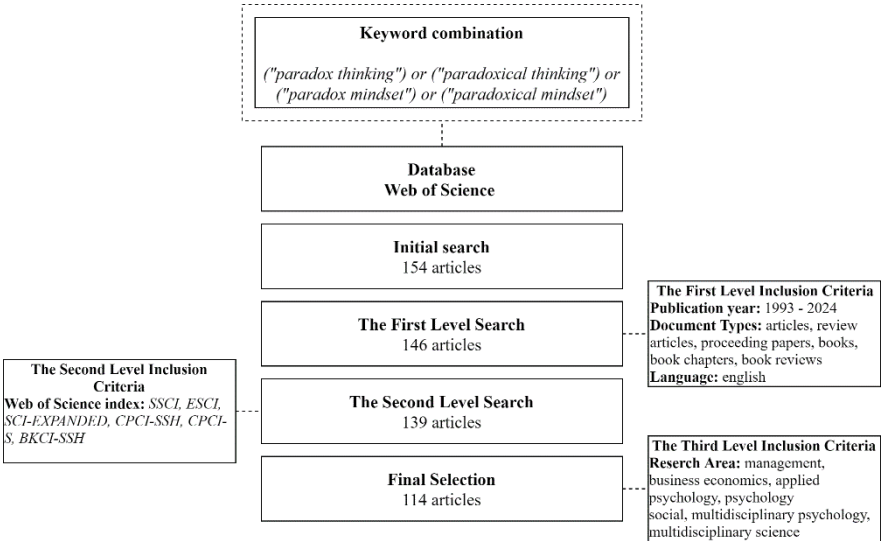


Figure 1 WoS Research Design

3. FINDINGS AND RESULTS

3.1. Evolution of the paradox mindset

The first research question regarding how the paradox mindset has evolved is depicted in Figure 2, which provides a timeline analysis on paradox mindset research from the beginning (1993) until today (2024). The variation in publication numbers over time highlights two distinct research stages in the field of paradox mindset: the pre-expansion phase (1993–2017) and the expansion phase (2018–2024).

Out of a total of 114 publications, only 19 were produced during the pre-expansion phase. It is noteworthy that the term „*paradox mindset*“ was first introduced by Miron-Spektor et al. (2018), marking the beginning of the expansion stage, which extends from 2018 to the present (95 publications). This indicates a significant increase in publications related to the paradox mindset from 2018 onwards, following a relatively low output before that period. Similarly, this suggests a growing interest in and recognition of the concept within academic circles. On the other hand, it is evident that there is a significantly higher number of publications published in 2023 than in the other years. In 2023, a total of 37 papers were published, including 16 book chapters and the book „*Navigating Leadership Paradox*“, all indexed in the WoS database. Excluding these, there were 20 other works, representing an increase of four compared to the previous year. There were seven papers in the first quarter of 2024, so it can be concluded that there will be a similar or higher number of papers by the end of 2024.

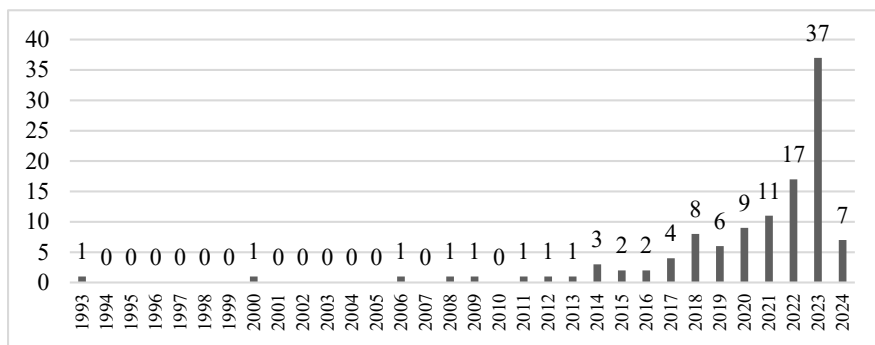


Figure 2 Publication timeline

Over the years, several terms have been used to describe contradictory phenomena, comprising a set of theories in different domains that may use different terminology but conceptually describe similar phenomena (Putnam, Fairhurst and Banghart, 2016; Schad, Lewis, Raisch and Smith, 2016). Accordingly, in addition to the notion of paradoxical thinking, several terms in the literature describe similar concepts (Table 1). Westenholz (1993) states that paradoxical thinking is a process through which employees establish a new relationship with the situation in which they find themselves. Similarly, Lewis & Smith (2014) state that paradoxical thinking involves thinking that is both holistic and dynamic, exploring synergistic possibilities for dealing with enduring tensions, while Schad et al. (2016) state that paradoxical thinking is a metatheoretical principle that deals with individual cognitions that involve paradoxes (Schad et al., 2016). Finally, Miron-Spektor et al. (2018) were among the first to mention a new and little-known concept in the academic community – *the paradox mindset*. The paradox mindset indicates the extent to which individuals accept and are energized by tension, which helps individuals harness tension and produce creative results (Miron-Spektor et al., 2018).

Table 1 Definitions of paradox mindset

Term	Definition	Source
Paradoxical thinking	<i>Process through which employees establish a new relationship with the situation they are in.</i>	Westenholz, 1993
Paradoxical thinking	<i>Entails a both/and mind-set that is holistic and dynamic, exploring synergistic possibilities for coping with enduring tensions.</i>	Lewis & Smith, 2014
Paradoxical thinking	<i>Meta-theoretical principle dealing with individual cognitions that engage paradox.</i>	Schad et al., 2016
Paradox mindset	<i>The extent to which one is accepting of and energised by tensions.</i>	Miron-Spektor et al., 2018

3.2. Outcomes of paradox mindset

To answer the second research question, an analysis of quantitative research papers was conducted to explore the outcomes most often associated with the research topic. Table 2 presents a collection of academic studies investigating the effects of the paradox mindset across various industries and contexts. The studies span multiple countries including the USA, China, India, Israel, and the Netherlands, highlighting the global interest in understanding the implications of the paradox mindset.

The research also covers a wide range of industries such as consumer products, banking, information technology, market research, and automotive manufacturing, indicating that the paradox mindset is relevant to many diverse sectors. The outcomes examined in the studies encompass a broad spectrum of workplace phenomena including in-role job performance, escalation of behavior, work-family conflict, innovative work behavior, innovative performance, employee adaptive performance individual ambidexterity, bootlegging behavior, work engagement and organizational citizenship behavior.

Table 2 Outcomes of paradox mindset

Outcomes	Definition	Research Countries	Type of industry	Source
in-role job performance	<i>Refers to the work behavior required to be carried out in the job description of employees (Wu, Zhang, Huang and Yuan, 2021.).</i>	USA, UK, Israel, and China	consumer products company	Miron.Spekt or et al. (2018)
escalation of commitment	<i>Situation in which previously invested resources such as money, time, or effort have not resulted in a positive outcome, and there is uncertainty about whether additional investments will result in success (Brockner et al., 1986.).</i>	USA	undergraduate business students	Sleesman (2019)

work-home conflict/work-family conflict	<i>Form of interrole conflict in which role pressures from the work and family domains are mutually incompatible in some respect</i> " (Greenhaus and Beutell, 1985.).	China	MBA students	Chen et al. (2020)
		Israel	higher-education system	Nadiv (2022)
innovative work behavior	<i>The individuals' behavior directed towards the initiation and intentional introduction (within a work role, group or organization) of new and useful ideas, processes, products or procedures</i> (Farr and Ford, 1990.).	China	financial, machine manufacturing and service industry	Liu et al. (2020)
		Netherlands	bank company	van Assen & Caniels (2022)
innovative performance	<i>Cumulated results of innovative activities in an industry or product category</i> (Liu and Zhang, 2022.).	China	IT, machine manufacturing, real estate and financial industry	Liu & Zhang (2022)
individual ambidexterity	<i>Conceptualized as the capability of managers to simultaneously demonstrate exploration and exploitation of knowledge</i> (Mom, Van Den Bosch and Volberda, 2007.).	India	large automotive equipment manufacturing firm	Snehvrat et al. (2022)
bootlegging behavior	<i>The process by which motivated employees take the initiative to work on ideas that have no formal organizational authorization and are often hidden from the sight of senior management but are undertaken with the aim of producing innovations to benefit the company</i> (Augsdorfer, 2005.).	China	information technology companies	Lyu et al. (2022)
work engagement	<i>Relatively enduring state of mind referring to the simultaneous investment of personal energies in the experience or performance of work</i> (Christian, Garza and Slaughter, 2011.).	China	research company and education organization	Yin (2023)
employee adaptive performance	<i>Employees' capability to adapt to rapidly changing work situations</i> (Neal and Hesketh, 1999.).	China	manufacturing, IT, finance, real estate, and service industry.	Tan et al. (2024)
organizational citizenship behavior	<i>Individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system and that in the aggregate promotes the effective functioning of the organization</i> (Organ, 1988.).	China	service and manufacturing enterprises	Pan (2021)

3.3. Bibliographic Coupling

To address the third research question of the study concerning the dynamics of paradox mindset research, a bibliometric coupling algorithm was employed to identify key journals, authors, publications, and countries within the field. A bibliographic coupling analysis was conducted using journals as the analysis unit to determine the most influential journal in this domain. The default minimum threshold was two publications and 20 citations per journal. Among the 73 journals examined, 10 met these criteria.

Table 3 illustrates the results ranked from high to low based on the number of documents per journal. It specifically shows the journal name, category quartile (Q1 being the highest), the number of published documents, total citations (TC), and total link strength (TLS).

Table 3 Top Journals in the Field

Journal	Category quartile	Document	TC	TLS
Frontiers in Psychology	Q1	6	23	237
Organization Studies	Q2	3	294	139
Organizational Behavior and Human Decision Processes	Q1	3	98	170
Asia Pacific Journal of Management	Q3	2	51	17
Journal of Change Management	Q2	2	37	67
Leadership Quarterly	Q1	2	212	153
Management Decision	Q2	2	30	146
Personality and Social Psychology Bulletin	Q2	2	35	61
Proceedings of the National Academy of Sciences of USA	Q1	2	83	82
Social and Personality Psychology Compass	Q2	2	45	74

The top 13 authors selected based on bibliographic coupling, their number of publications, citations and total link strength are summarized in Table 4. The authors who contributed the most to publications concerning the paradox mindset are Bevort, F., Henriksen, T., A., Lyndgaard, D. B., and Nielsen, R. K., who contributed to the book "*Navigating Leadership Paradox*". The book outlines how professionals and leaders can practically tackle paradoxes through 5 phases, 10 key paradoxes, 15 tools, 20 case studies and 25 lessons. Nielsen et al. (2023) demonstrate how to identify paradoxes by analyzing challenges and identifying individual and collaborative means of addressing those challenges. Moreover, the authors offer insights and pointers for facilitators and educators who support others in working with paradoxes in organizational development or (the) educational

context (Nielsen et al., 2023). The table shows that most authors are from Denmark (Bevort, F., Henriksen, T., A., Lyndgaard, D. B., and Nielsen, R. K.). The next country with the most authors is Germany, which has three major authors (Sassenberg, K., Scholl, A., and Winter, K.). Likewise, Israel also has three key authors (Bar-Tal, D., Halperin, E., Rosle, N.).

Table 4 Top Authors Contribution to the Field

Author	Affiliation	Document	TC	TLS
Bevort, F.	Copenhagen Business School (DNK)	15	0	1534
Henriksen, T. D.	Aalborg University (DNK)	15	0	1534
Hjalager, A.	University of Southern Denmark (DNK)	15	0	1534
Lyndgaard, D. B.	Confederation of Danish Industry (DNK)	15	0	1534
Nielsen, R. K.	Aalborg University (DNK)	15	0	1534
Hameiri, B.	University of Pennsylvania (USA)	11	191	4004
Bar-Tal, D.	Tel Aviv University (ISR)	10	185	3945
Halperin, E.	University of Jerusalem (ISR)	10	169	3009
Yin, J.	Shenzhen University(CHN)	4	17	211
Rosler, N.	Tel Aviv University (ISR)	3	6	1431
Sassenberg, K.	Friedrich Schiller University of Jena (DEU)	3	23	1110
Scholl, A.	University of Konstanz (DEU)	3	23	1110
Winter, K.	University of Hohenheim (DEU)	3	23	1110

A bibliographic coupling analysis was conducted using publications as the analysis unit to determine the most influential paper in this domain. The default minimum threshold was 60 citations per publication. Among the 114 total publications, 11 met this criterion. Publications were ranked based on their total link strength and citation count. The most prominent publication was Miron-Spektor et al. (2018), which received 345 citations and achieved a total link strength of 93. Zhang et al. (2017) ranked second, with 147 citations and a total link strength of 71. Hillebrand (2015) ranked third, with 144 citations and a total link strength of 31.

The publication with the strongest total link strength was “*Microfoundations of organizational paradox: The problem is how we think about the problem*,” by Miron-Spektor, E., Ingram, A. Keller, J., Smith, W. K., and Lewis, M. W., published in the *Academy of Management Journal*. Authors in this

research developed and validated measures that help unpack individuals' varied approaches to tensions. The second strongest publication was "*CEO humility, narcissism and firm innovation: A paradox perspective on CEO traits*," by Zhang, H., Ou, A. J., Tsui A. S., and Wang, H., published in *The Leadership Quarterly*. The research explored how two seemingly contradictory yet potentially complementary CEO traits—humility and narcissism—interact to affect firm innovation. The third strongest publication was "*Stakeholder marketing: Theoretical foundations and required capabilities*," by Hillebrand, B., Driessen, P. H., and Koll, O., published in the *Journal of the Academy of Marketing Science*. The article showed that stakeholder marketing requires the following capabilities: systems thinking, paradoxical thinking, and democratic thinking.

Table 5 Top Publication in the Field

Title	Author and Year	TC	TSL
<i>Microfoundations of Organizational Paradox: The Problem Is How We Think about the Problem</i>	Miron-Spektor et al., 2018	345	93
<i>CEO humility, narcissism and firm innovation: A paradox perspective on CEO traits</i>	Zhang et al., 2017	147	71
<i>Stakeholder Marketing: Theoretical Foundations and Required Capabilities</i>	Hillebrand et al., 2015	144	31
<i>The Interplay Between Intuition and Rationality in Strategic Decision Making: A Paradox Perspective</i>	Calabretta et al., 2017	137	53
<i>Paradox and Theorizing Within the Resource-Based View</i>	Lado et al., 2006	103	27
<i>Critical Pedagogy In The New Paradigm</i>	Dehler et al., 2001	103	2
<i>Paradoxical Thinking and Change in the Frames of Reference</i>	Westenholz, 1993	82	3
<i>Culture, Conditions and Paradoxical Frames</i>	Keller et al., 2017	75	62
<i>Paradox Versus Dilemma Mindset: A Theory of How Women Leaders Navigate the Tensions Between Agency and Communion</i>	Zheng et al., 2018	65	79
<i>A Paradox Perspective on the Interactive Effects of Visionary and Empowering Leadership</i>	Kearney et al., 2019	65	41
<i>Paradoxes and Innovation in Family Firms: The Role of Paradoxical Thinking</i>	Ingram et al., 2016	64	40

A bibliographic coupling by country was performed to determine which countries have significantly contributed to paradox mindset research. A minimum threshold of seven publications per country was established. Out of 36 countries, nine met this criterion.

USA was found to have the strongest values, with 34 publications, 1275 citations, and a total link strength of 6782. Table 6 shows the total link strength, number of citations, and number of publications from nine shortlisted countries. Given that the most cited authors (Hameiri, B., Bar-Tal, D., Halperin, E.) are from the USA and Israel, it is unsurprising that the USA leads in the number of published papers, citations, and connections, followed by Israel.

Table 6 Top Country in the Field

Country	Document	TC	TLS
USA	34	1259	6782
DENMARK	20	137	1568
ISRAEL	20	639	3589
CHINA	15	345	3495
ENGLAND	7	435	2437
GERMANY	7	89	1709

3.4. Co-Citation Network

A co-citation analysis was conducted to address the fourth research question. Cited references were used as the unit of analysis. With a minimum citation threshold of 20, only 9 publications met the criteria (out of 6242 cited secondary documents) and were ultimately classified into two thematic clusters, as illustrated in Figure 2. Clusters consist of sets of related works based on co-citation analysis. The measurement of similarity, or the interconnectedness of works, is based on the assumption that works frequently cited together are closely connected (Župič and Čater, 2015).

Co-citation cluster 1: Theoretical Perspectives on Paradox. Co-citation cluster primarily deals with research before the concept of paradoxical thinking was fully developed. Papers within this cluster explore how paradoxes are resolved in organizations and how conflicting demands, goals, and challenges influence managerial decisions and organizational strategies. This approach often views paradoxes as something to be "solved" or "balanced," rather than accepting them as a natural part of organizational life. In addition to Smith and Lewis (2011), Andriopoulos and Lewis (2009) and Schad (2016), it is important to mention Poole and van de Ven (1989), who defined four ways of working with paradoxes: (1) accepting the paradox and using it constructively; (2) clarifying the levels of analysis; (3) separating the different levels in time; and (4) introducing new conditions for resolving the paradox. Furthermore, Lüscher and Lewis (2008.) contributed to this field by explaining three aspects of organizational change: performance, belonging, and organizing paradoxes. Finally, Smith and Tushman (2005) developed a model for managing strategic contradictions associated with paradoxical thinking using the literature on paradoxes, contradictions, and conflicts.

Co-citation cluster 2: (Concept of Paradox Mindset. Contains three key papers. First, paper of Miron-Spektor et al. (2011) investigated the impact of paradoxical frameworks on creativity due to the paradoxical relationship between task elements. On the other hand, second paper of Miron-Spektor et al. (2018) first introduced the term paradox mindset. The paradox mindset does not see contradictions as a problem to be solved but as an opportunity for growth and development. Although after 2018, with the publication of the article by Miron-Spektor et al., interest in researching how individuals and teams in organizations can use a paradoxical mindset to solve complex and dynamic business problems has increased, there is still a lack of research on the topic. In their work, Zhang et al. (2015) introduce the term paradoxical leader behaviors, which are closely related to a paradox mindset. The authors highlight that managers with paradoxical behavior have a paradoxical mindset (Zhang et al., 2015).

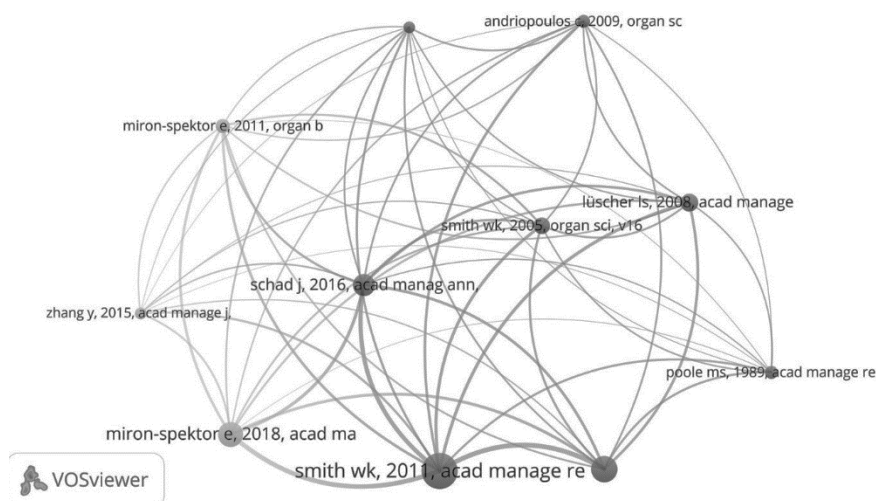


Figure 2 Density visualization based on co-citation analysis

4. FUTURE RESEARCH AGENDA

The growing interest in the paradox mindset creates a great opportunity to develop further this concept and its implications for a wide range of domains. Future research should further develop and extend existing theories toward understanding how paradoxes operate in an organizational environment. First, researchers can seek to construct integrative frameworks that harmonize different definitions and operationalizations of paradox phenomena. Such efforts could resolve inconsistencies in the literature and provide a common foundation for advancing scientific discussion. Given that the concept of paradox mindset is still

under-researched in many countries, the scientist could study how paradox mindset is related to different work outcomes in different countries and industries.

Moreover, scientists must address several under-researched questions to help define the future research agenda (Savastano, Spremić, Stojic and Gobbi, 2024). Prior research focusing on the paradox mindset has primarily studied how it relates to innovative work behavior (Liu et al., 2020; Van Assen and Caniëls, 2022) and various forms of performance (Liu and Zhang, 2022; Tan et al., 2024). For example, future studies could investigate how a paradoxical mindset affects resilience among employees regarding difficulties occurring in their organizations or how it affects the team in terms of collective problem-solving ability. Future research could look at how cultural differences affect the paradox mindset. Researchers also need to study both the good and bad effects of this mindset before encouraging organizations to use it. It is important to understand when and why these effects happen.

Moreover, the role of technology in redeeming workplace paradoxes (e.g., digital transformation and artificial intelligence) could highlight relevant insights. As organizations today increasingly face technological advances, it is critical to understand how these technologies impact paradoxical challenges and opportunities in order to maximize their potential benefits. Future studies could also use more diverse methodologies - such as longitudinal studies, experimental designs, and advanced bibliometric techniques - to maintain the reliability and relevance of the findings. Lastly, researchers should prioritize interdisciplinary collaboration to bridge the gap between different fields, increasing the relevance and impact of research on the paradox mindset.

To this end, future studies could aim to answer the following questions:

RQ1: *How do cross-cultural differences influence the development and impact of a paradox mindset in organizational contexts?*

RQ2: *How does the paradox mindset affect the team in terms of collective problem-solving ability?*

RQ3: *How do digital transformation and artificial intelligence impact paradoxical challenges and opportunities in order to maximize their potential benefits?*

5. DISCUSSION

Over time, various terms have been used to describe contradictory phenomena, encompassing theories across different domains that use distinct terminology but conceptually address similar ideas (Putnam et al., 2016; Schad et al., 2016). More specifically, literature features two key terms: *paradoxical thinking* and *paradox mindset*. While paradoxical thinking has been studied for many years, the paradox mindset concept was introduced by Miron-Spektor et al. (2018) in their paper, “*Microfoundations of organizational paradox: The problem is how we think about the problem*”.

The concept's development over the years shows two distinct research stages: the pre-expansion phase (1993–2017) and the expansion phase (2018–2024). The concept of the paradox mindset is rapidly evolving, with 37 papers published last year and even more expected in 2024. The outcomes examined in these studies encompass a range of workplace phenomena, including in-role job performance, escalation of behavior, work-family conflict, innovative work behavior, innovative performance, employee adaptive performance, individual ambidexterity, bootlegging behavior, work engagement and organizational citizenship behavior, which are expected to be explored in future research. Modern managers should consider implementing this concept in their organizations, as the analysis shows a significant association between the paradox mindset and job performance and innovative work behavior.

This study used citation analysis and co-citation analysis to examine the development of the paradox mindset concept. The results of the citation analysis showed that “*Frontiers in Psychology*” leads with six publications followed by “*Organization Studies and Organizational Behavior*” and “*Human Decision Processes*”. Furthermore, Denmark has the most authors, followed by Germany and Israel. Finally, it is important to mention that the most influential paper is Miron-Spektor et al. (2018), with 345 citations, while the USA leads in publications and impact, closely followed by Israel. Furthermore, the co-citation analysis revealed two distinct clusters: *Co-citation cluster 1: Theoretical Perspectives on Paradox* led by Miron-Spektor et al. (2018.), who introduced the paradox mindset concept, and *Co-citation cluster 2: Concept of Paradox Mindset* consisted of authors exploring paradoxical thinking before 2018.

6. CONCLUSION

This analysis offers a clear and comprehensive summary of research on the paradox mindset. The study of paradoxes has grown significantly. It has transitioned from a niche topic to a well-developed field, enabling the use of bibliometric tools. Despite this progress, objective evidence is still needed to clarify existing knowledge, highlight gaps, and encourage dialogue among scholars.

This study's contributions and insights are grounded in a transparent and replicable methodology, offering valuable guidance to researchers, managers, and professionals within and beyond the field of paradox research. It highlights that paradoxes are an intrinsic aspect of organizational life. Researchers must be encouraged to investigate multiple connected paradoxes, while practitioners must adopt a paradoxical mindset to manage workplace tensions more effectively.

Conclusions should not be accepted without question. It is important to recognize the limitations of the study. First, only two bibliometric methods were used: citation analysis and co-citation analysis. As Župić and Čater (2015) mentioned, other methods, such as bibliographic coupling, co-author analysis, or co-word analysis, could complement the findings of this analysis. Additionally,

only publications indexed in the WoS database were included. Future research should consider publications indexed in other relevant databases, such as Scopus.

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Orcid: <https://orcid.org/0009-0000-6863-1122>**SUSTAVNI PREGLED LITERATURE PARADOKSNOG
NAČINA RAZMIŠLJANJA: BIBLIOMETRIJSKA I
VIZUALIZACIJSKA ANALIZA*****Sažetak***

Napetosti koje proizlaze iz paradoksa pružaju zaposlenicima put i priliku za učenje i istraživanje izazovnih pitanja u njihovu radu. Paradoksalni način razmišljanja opisuje u kojoj mjeri zaposlenici prihvaćaju napetosti, što im pomaže da umanjuju napetosti i stvaraju kreativne rezultate. Cilj je ovog rada istražiti razvoj koncepta paradoksnog načina razmišljanja na temelju identifikacije i analize publikacija unutar društvenih znanosti. U radu se analizira 154 publikacija koje su objavljene između 1993. i 2024. godine. Kako bi se istražio koncept paradoksnog načina razmišljanja, koriste se dvije metode bibliometrijske analize: analiza citata i zajedničkih citata. Glavni je doprinos ovog rada u strukturiranom, sveobuhvatnom i objektivnom pregledu literature. Rezultati rada istraživačima i znanstvenicima daju smjernice za daljnja istraživanja u području društvenih znanosti, a menadžerima naglašavaju važnost paradoksnog načina razmišljanja te im pomažu u suočavanju s takvim oblikom razmišljanja zaposlenika.

Ključne riječi: *paradoksalni način razmišljanja, paradoksalno razmišljanje, teorija paradoksa, bibliometrijska analiza.*

JEL klasifikacija: *C88, D91, L29, M12.*